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Depression Symptom and Related factors among Thai Seafarers

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Background and Significance

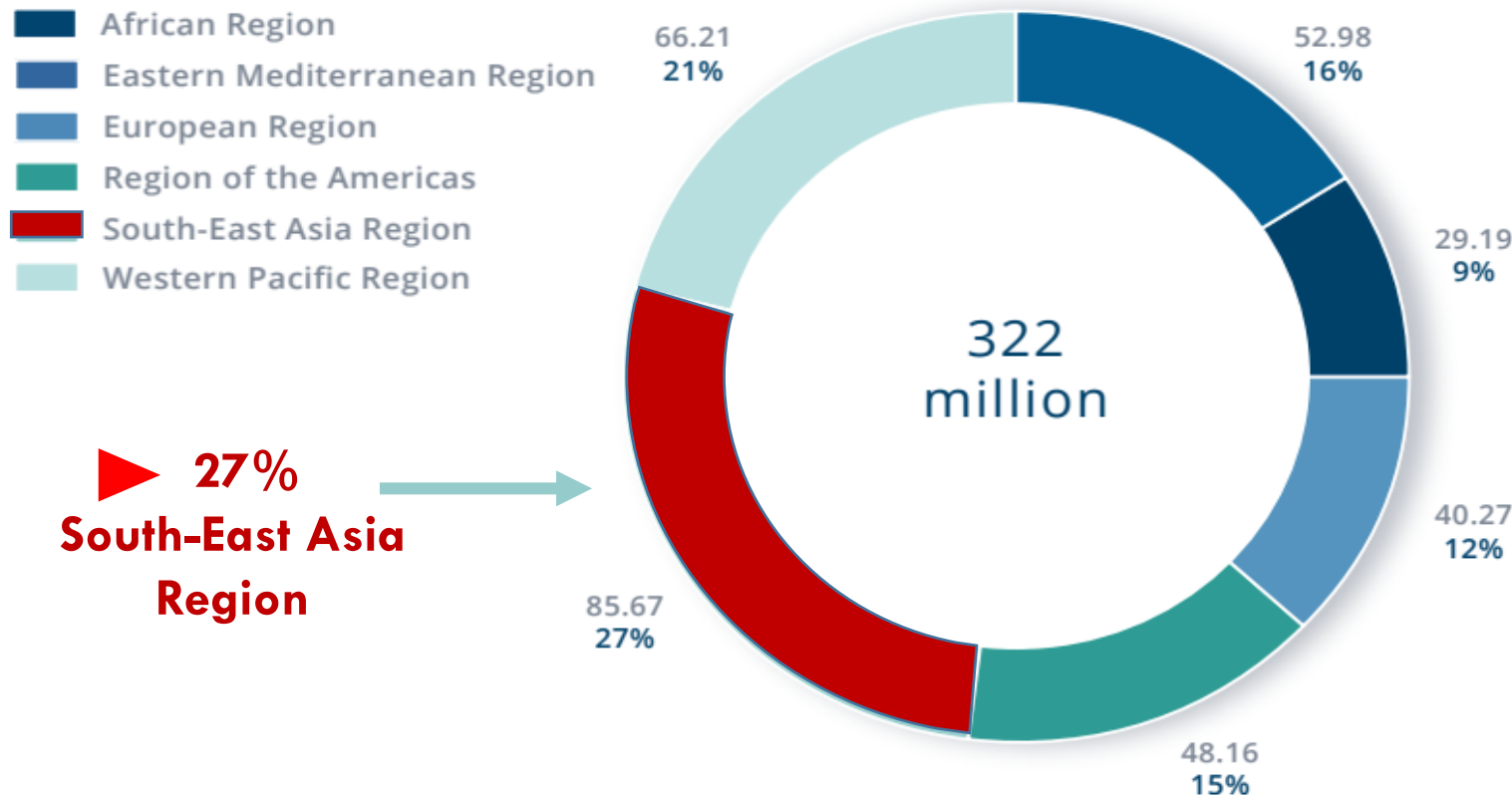


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Background and significance

Magnitude and severity of depression problem

Cases of depressive disorder (millions)



The largest contributor of
depression

7.5%
of people live with
disability from
depression

Leading to suicide



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Background and significance

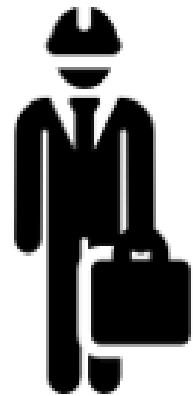
Magnitude and severity of depression problem

1.5 million

people with depression



Working age-group



Depression

62%

Highest suicidal rate

40.21%

Occupational group

Working can be a significant cause of depression.

Depression symptom were screened in these occupation to prevent developing to disorder.



- Factory industry worker
- Agriculture worker
- Maritime worker (Seafarer)



Top 3

Depression is the leading causes of disability – adjusted life year.



Top 12



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*Seafaring population
have high rate of
suicide⁷*

Systematic review of merchant ship
seafarer's death found **1,011**
seafarers (5.9%) died as a result of
suicide of total deaths (17,026)⁶

Background and significance

Magnitude and severity of depression problem

Prevalence of depression symptom among seafarers in several studies

United
kingdom¹
25%

Brazil²
14.5%

China
49% of offshore
worker depress
than onshore
worker³

**How is the situation of depression
symptom in Thai seafarer?**



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Thailand

- **77.19%** had anxiety and stress from long period on board⁴
- Thai Navy personnel on ship sector had depression symptom more than another sector⁵

**Screening depression symptom in Thai seafarers to
prevent developing to disorder**



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The distinction between
depression symptom and depressive disorder

Depression symptom

- ❑ Temporary of negative response to stressful event
- ❑ Some case has function impairment in daily and work life
- ❑ Screening by instrument such as PHQ-9

Developing to

Depressive disorder (Mood disorder)

4 groups of symptom

Mood

Thought

Neurovegetative

Psychomotor
retardation

- Persistence of depress mood or lost of interest
- Function impairment in daily and work life
- At least 5 symptoms of DSM-V criteria diagnosis almost in a day over 2 weeks period



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Factors related to depression

Personal data



Health behavior



Working conditions



Working environments



Prevention of Depression

Target group

Universal prevention

- ☐ General or whole population

Selective prevention

- ☐ Individual or subgroup whose risk of developing depression

Indicated prevention

- ☐ Individual who emerging of depressive disorder



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Personal data



- Underlying diseases
- Poor perceive healthy status
- Age
- Work experiences

Limited good health behavior



- Poor coping behavior
- Sleeping problem
- Unhealthy food
- Less access to health service immediately
- Less exercise

Factors related to depression

Working conditions



- Shift work/Night work
- Social isolation/ Loneliness

Working environments



- Physical environment
 - Noise from ship engine
 - Heat/cold
 - Insufficient light/Bright light
 - Ship motion
- Chemical environment
- Psychosocial environment
 - Separation from family members
 - High job demand and low control
 - Piracy/Criminalization





General objectives

To examine the effectiveness of preventive program against depression symptom among Thai seafarers using selected factors related to it among Thai seafarers



Specific objectives

Phase 1

1.To examine the prevalence, and factors related to depressive symptoms among Thai seafarers

Phase 2

1. To develop the preventive program against depressive symptoms using selected factors to it for Thai seafarers
2. To examine the effectiveness of preventive program against depressive symptoms using selected factors related to it for Thai seafarers



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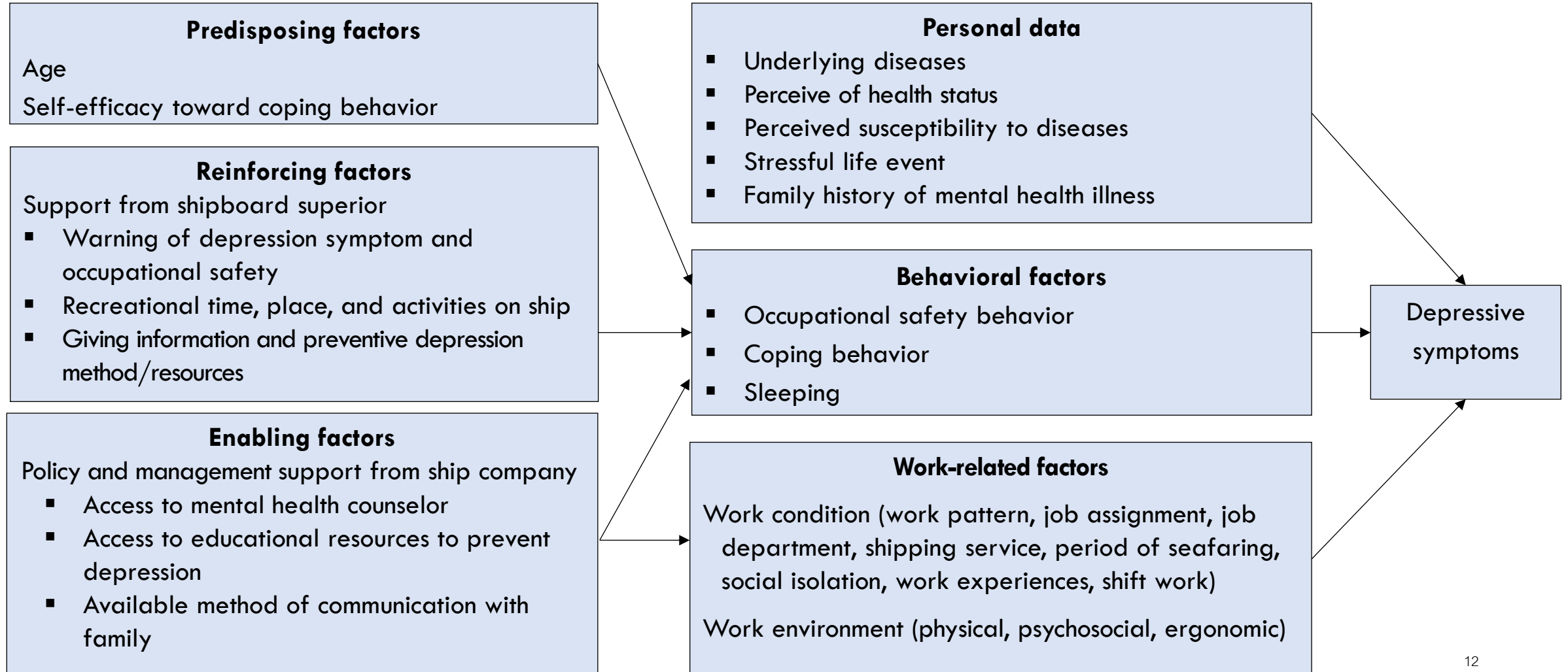


Material and Method



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Factors related to depressive symptoms



Phase 1

Cross-sectional study



Phase 1: Program development

Data analysis



Descriptive statistics



Chi-square test for univariate analysis



Logistic regression analysis

Cross-sectional study

Calculation mean, S.D., percent

- ☐ Characteristic of participants
- ☐ Prevalence of depressive symptoms

Examine significant factors

- ☐ Significant factors to contain in logistic regression analysis

Determine factors related to depressive symptoms

- ☐ Personal and work factors related to depressive symptoms
- ☐ Predisposing, reinforcing, and enabling factors related behavioral and work factors



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Population, Sample size, Sampling method

Phase 1: Program development

Cross-sectional study

$$n = \frac{NZ_{\alpha/2}^2 pq}{d^2(N-1) + Z_{\alpha/2}^2 pq} = \frac{(38,066)(1.96)^2 (0.2)(0.8)}{(0.052)(38,066-1) + (1.962)(0.2)(0.8)} = 244 \text{ samples}$$

60% is assumed as return rate questionnaire, therefore 146 samples are added, the maximum **sample size is 390 samples**

Population

660 shipping companies (consisting of 38,066 seafarers who registered being Thai seafarers at Marine Department, the Ministry of Transport)

Purposive sampling shipping companies located at Bangkok

Shipping companies located at Bangkok

shipping company A

shipping company B

Shipping company C

Shipping company D

Samples

Total sample = 390 seafarers



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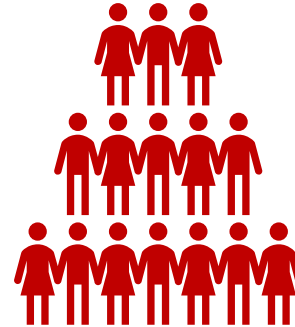
Population

Thai seafarers who work on
merchant ship which registered
with Marine Department,
Ministry of Transport

Inclusion and Exclusion criteria

Sample size

390 samples



Inclusion criteria

- 1) Thai male at 18 years old or more
- 2) Having seafaring experience at least one time
- 3) Willing and able to participate in the study
- 4) Understandable writing and reading in Thai

Exclusion criteria

- 1) Not available at the time of data collection
- 2) Severe or urgent illness, accident, disability at the data collection time



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Phase 1: Program development

Cross-sectional study

Data collection method: Self-administered questionnaire





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Results



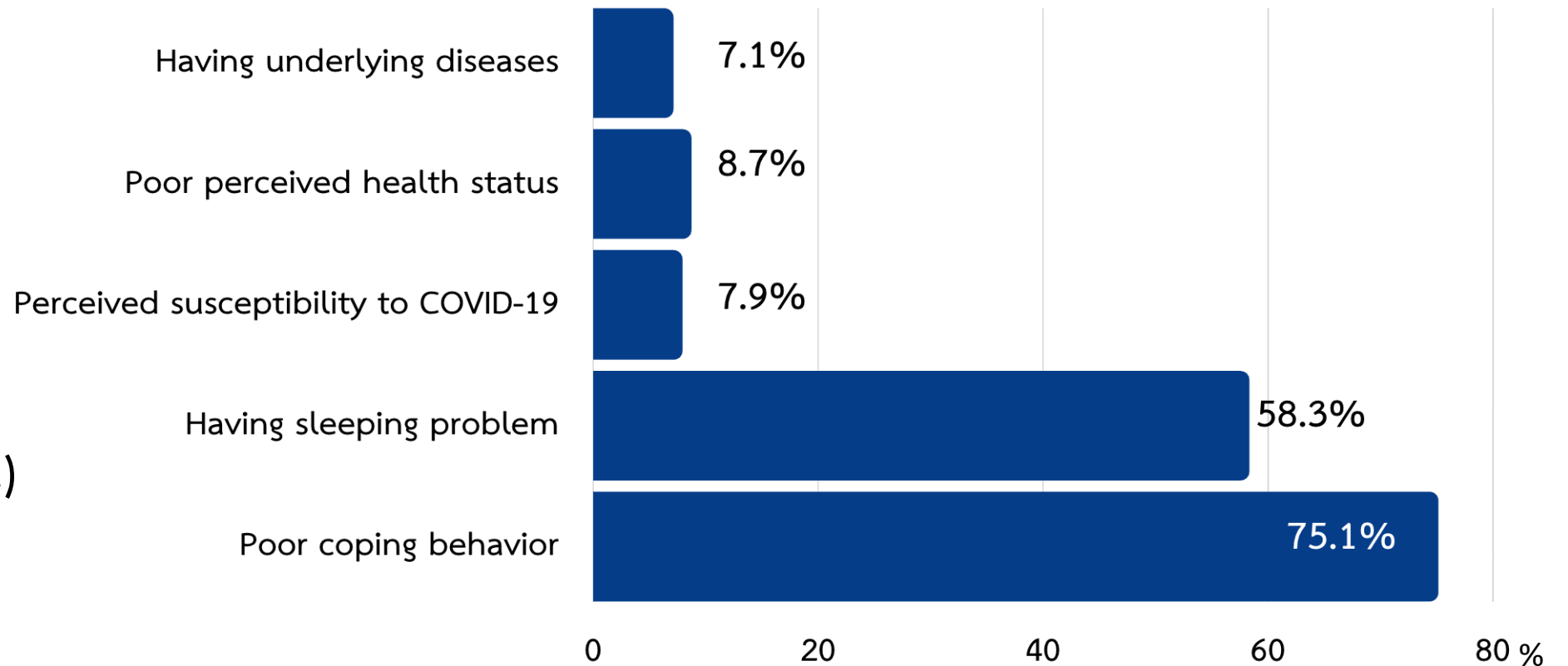
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Result: Cross-sectional study

Characteristics of personal and behavioral data



Male 100%
Mean of age (SD.)
= 36.4 (9.56)

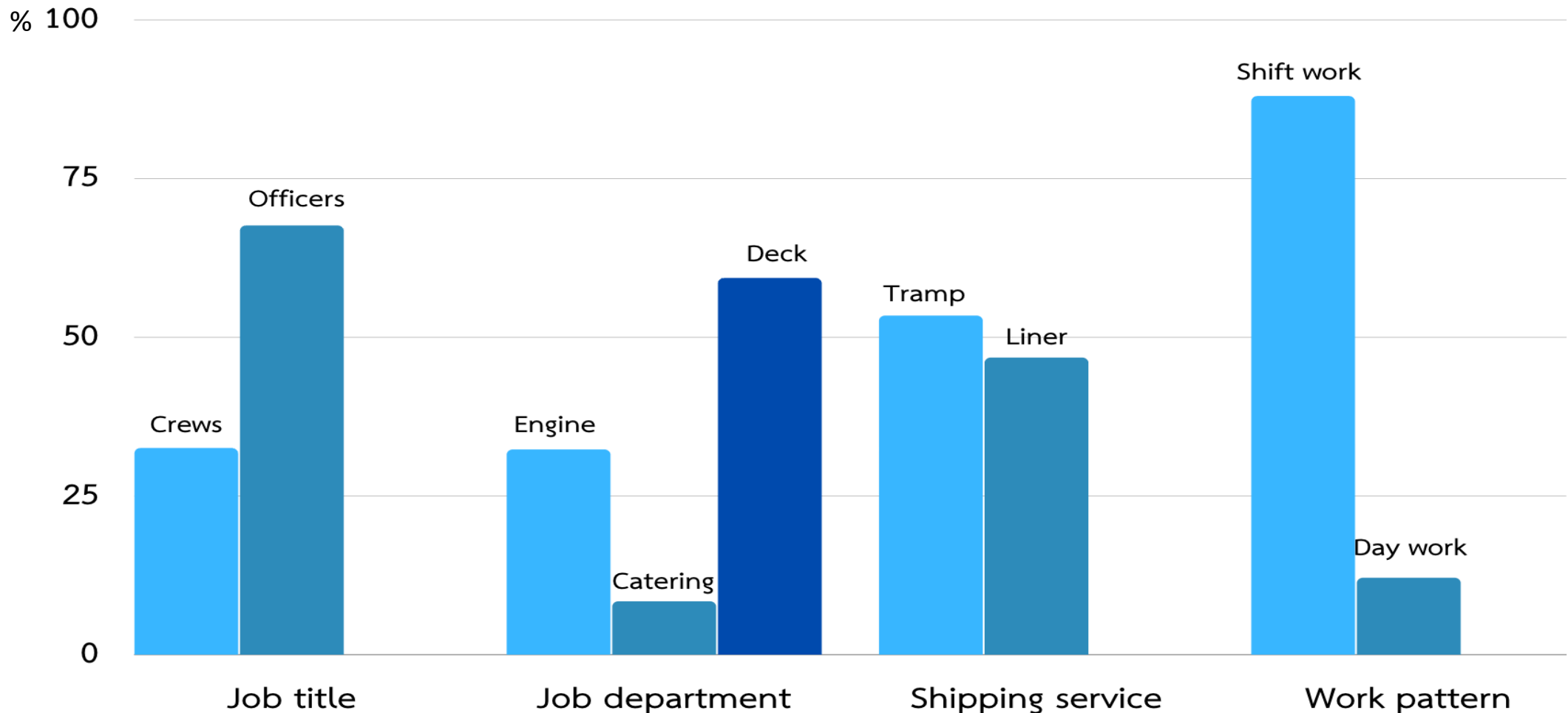




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Result: Cross-sectional study

Characteristics of work factors



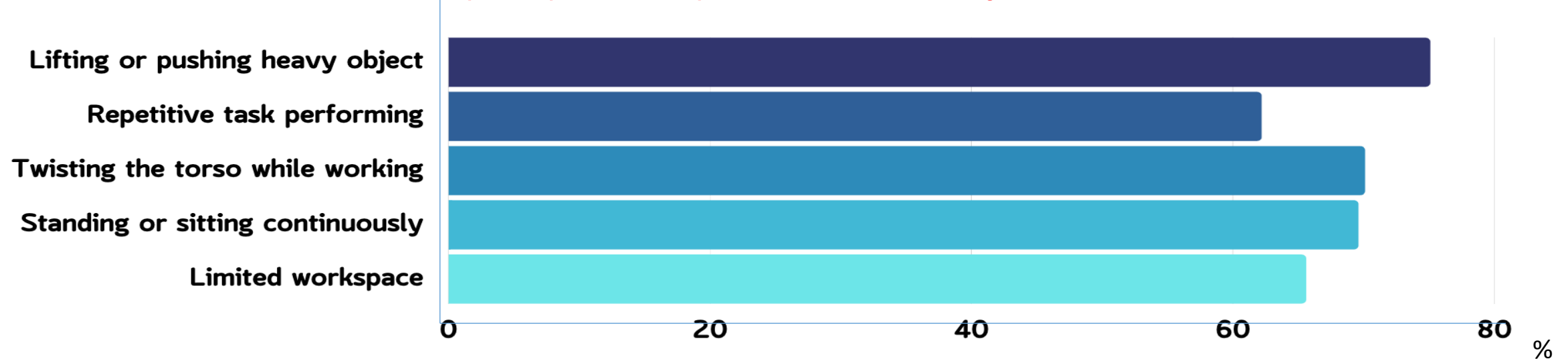


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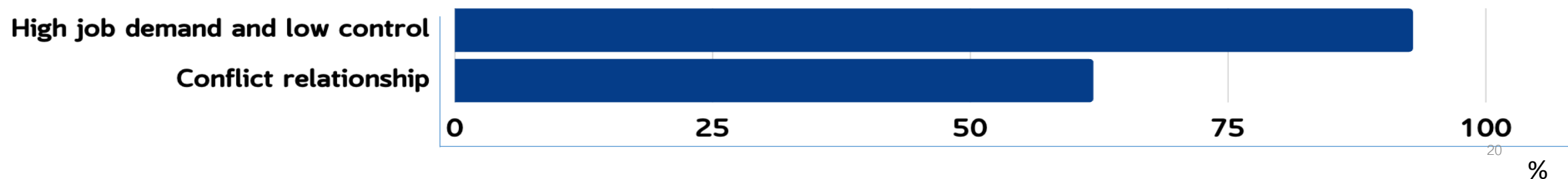
Result: Cross-sectional study

Characteristics of work factors

Percent of participants who perceive disturbed ergonomic work environment



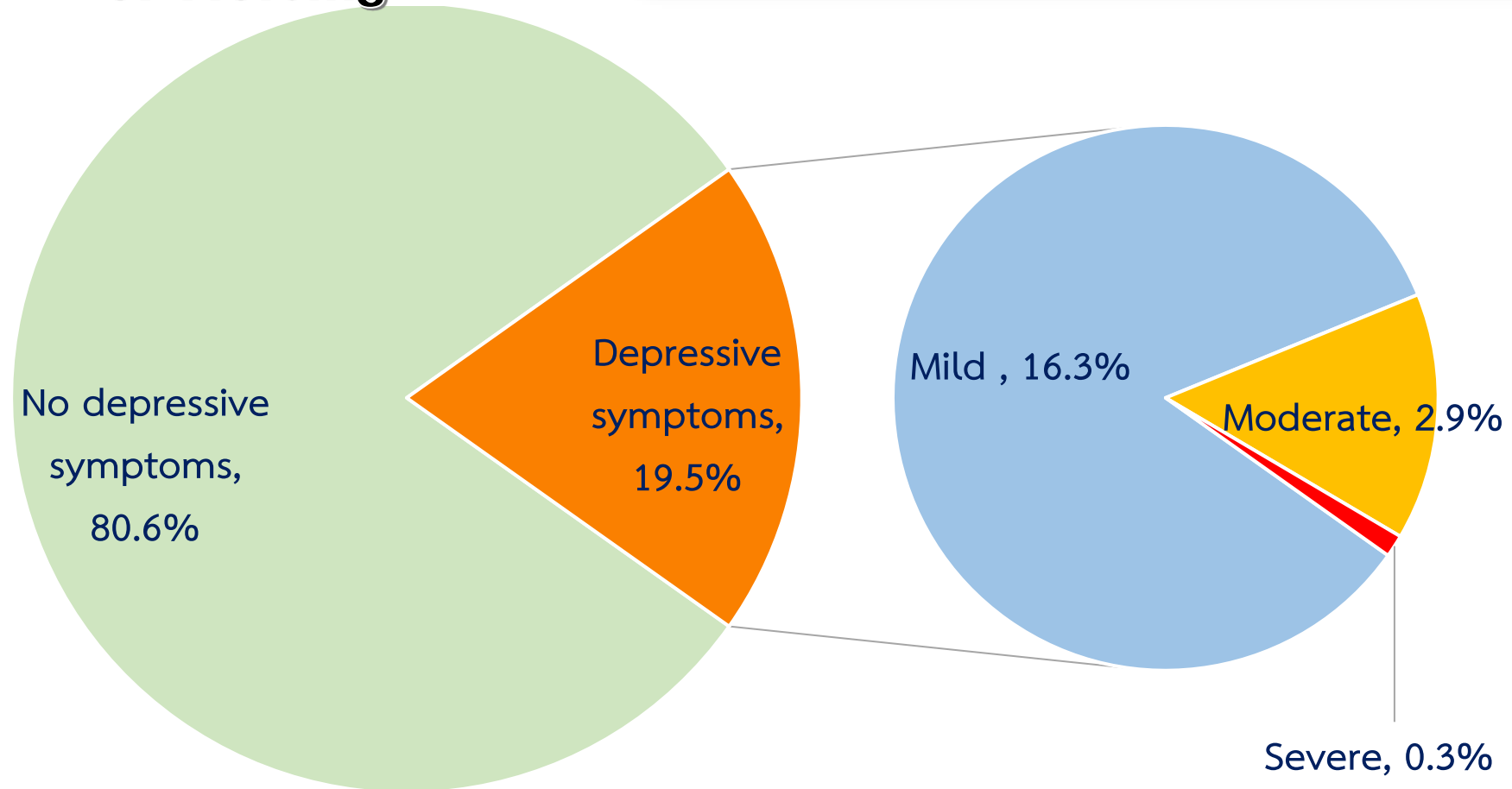
Percent of participants who perceive disturbed psychosocial work environment





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Result: Cross-sectional study



Prevalence of depressive symptoms = 19.5%,*

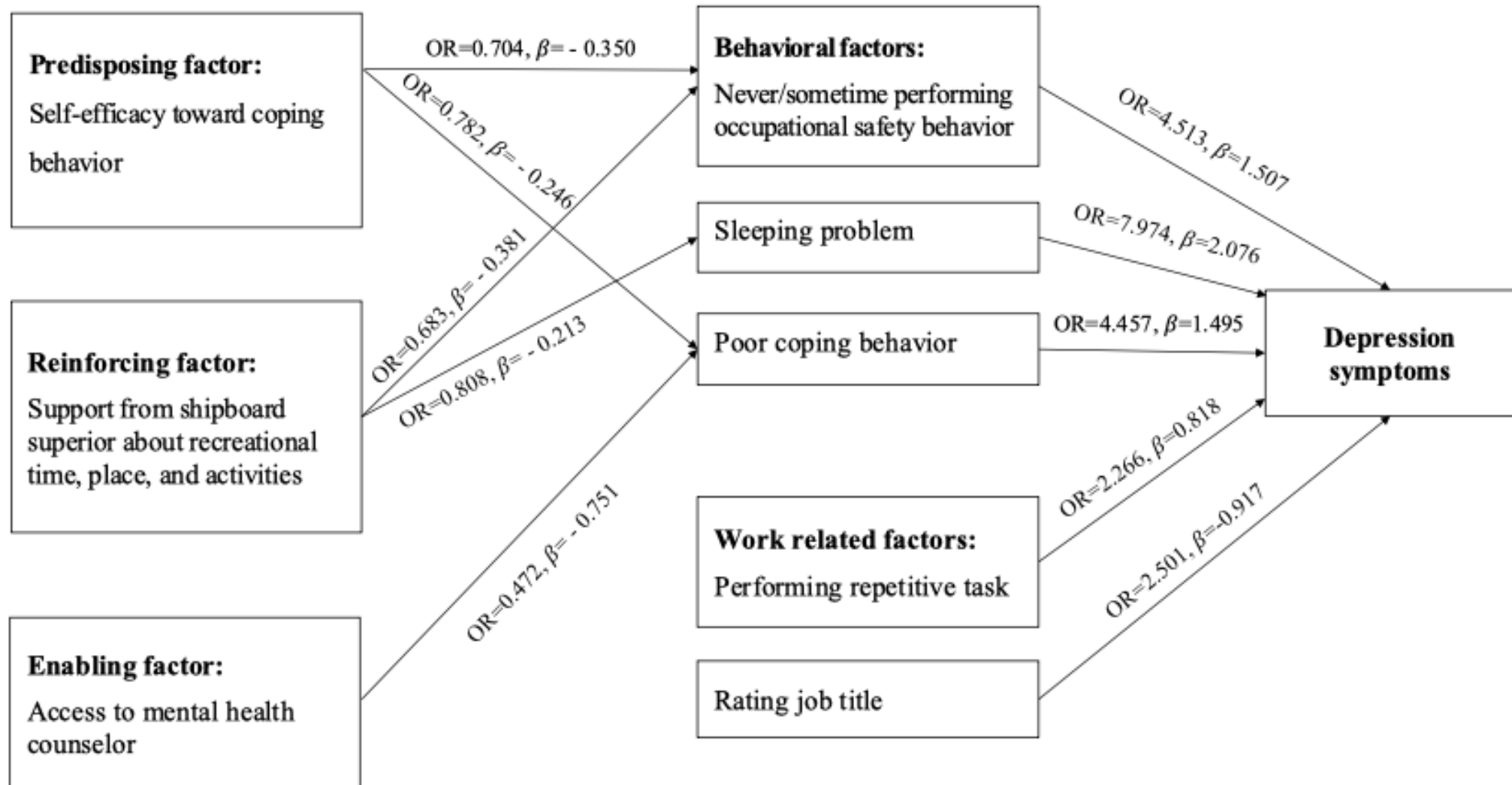
Mean (SD.) 5.15 (4.15)

* Similar to a study from UK (Lefkowitz & Slade, 2019) and Brazil Silva et al., 2017



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Factors related to Depressive symptoms





Maritime
Health policy

- Pre-onboard medical fitness program may add depression screening.
- Refreshing skill program every two year should add mental health first aid and coping skill

Maritime
education

- Promote mental health prevention among maritime occupation in baccalaureate education program

Shipping company

- Work-rest hour balance and promoting recreational place and activities based on desirable ship environment

Individual seafarers

- Training of self-efficacy toward coping behavior at pre-onboard seafaring
- Accessibility to coping educational resources and counselling privately



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Preventive Program against Depression Symptom among Thai Seafarers

Thank you

