Mariner mental health & wellbeing during COVID-19 and beyond

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What is a mariner?

- > **US Merchant Marines:** Civilian seafarers who move passengers and cargo between nations and within the USA, operate and maintain tugboats, towboats, ferries, charter boats, excursion vessels, etc.
- > Could be employed by government or private company
- > Training and licensing through the US Coast Guard



WHAT IS A MERCHANT MARINER?



A merchant mariner serves aboard a commercial vessel as part of the Merchant Marine after completing training and certification through the Coast Guard. The mariner may have one of a variety of jobs, from electronics to culinary work.







Burden

- > As of 2020, USA had 3,652 registered merchant marine vessels
 - 5 bulk carrier
 - 63 container ships
 - 104 general cargo
 - 68 oil tankers
 - Rest are tugs, tows, ferries, research vessels, all others
- > About 150,000 to 200,000 US mariners (estimate)
- > 76% of trade in USA involves marine transportation



What is it like on a vessel?

- > Long hours (12 hr + days)
- > Rough weather conditions
- > Cramped quarters
- > Hard physical work
- May lack access to internet/phone
- > Isolation
- > Few people on board





What is it like on a vessel

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- > Hard physical work
- > May not have access to internet/phone
- > Isolation

...and lack of access to shore leave, reduced ability to return home, longer voyages, fewer people, changes in work protocols, quarantining before, etc..







I talked to @washingtonpost about the essential yet invisible nature of Mariners, and the importance of considering their mental health especially during the COVID-19 pandemic.



washingtonpost.com

Essential, invisible: Covid has 200,000 merchant sailors stuck at sea Global trade depends on maritime workers, but the pandemic has thrust them into "humanitarian and economic crisis."

10:21 AM · Apr 14, 2021 · Twitter for iPhone

7 Retweets 1 Quote Tweet 11 Likes

'Sea Prison': COVID-19 Has Left Hundreds Of Thousands Of Seafarers Stranded

January 29, 2021 - 11:33 AM ET





Workers at the Port of Baltimore walk down the stern ramp of a vessel. A group that normally welcomes crew members to the city is now acting as couriers, dropping off care packages to those stuck on board ships.

Claime Harbage/NPR



"I stopped shipping out...have been on the beach...would go back to work but it's not worth getting the virus and losing my life over a job."

"It distresses me the non-support we receive regarding Covid. We are putting ourselves in harms way by flying, having Pilots and vendors onboard and have not even received a letter thanking or acknowledging us. In my 40 years in the industry I've never felt more isolated and without company support then I do now."

"Being trapped on a vessel without being able to go ashore is more stressful than the fear of getting COVID-19."

"Covid 19 isn't the issue; it's the craze associated with it. I don't know a single Mariner worried about catching the disease, but know plenty either out of work or can't leave the boat or house because of stupid protocols."

US Mariner Survey











GOALS:

- > Characterize mental health outcomes, determinants, and barriers to accessing care in US mariners
- > Prioritize interventions to improve mariner well-being during COVID-19 and beyond

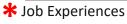
SURVEY OPEN: January 25—July 31, 2021



INDIVIDUAL FACTORS *Age Beliefs held around MH Gender Marital status Educational level Smoking status Alcohol consumption Caffeine intake Body mass index Presence of disease(s) Insomnia symptoms Job type Industry sector JOB STRESSORS Work experience **PSYCHOLOGICAL** STRESS REACTIONS Quantitative workload OUTCOME Variance in workload Cognitive demands Job satisfaction Job control Depressive symptoms Occupational Skill underutilization injury Responsibility for people Interpersonal conflict Job future ambiguity Employment opportunities **BUFFER FACTORS**

Social support from Supervisors

Coworkers Family



* Job Concerns

Nakata et al. AJIM 2006. "Impact of psychosocial job stress on non-fatal occupational injuries in small and medium-sized manufacturing enterprises"



Survey Topics

- > Validated scales: PTSD, Anxiety, Perceived Stress, Depression, Suicidal Ideation (coded as likely/unlikely)
- > Determinants of stress
- > Job satisfaction
- > Safety climate
- > General health
- > Concerns/experiences while sailing during COVID-19
- > Mental health stigmas and barriers to accessing care
- > Mental health communication needs



Brief overview

- > 1,589 respondents as of July 31, 2021
 - 91.5% have actively sailed during the COVID-19 pandemic
 - 90% male (of those who disclosed gender)
 - 82% white (of those who disclosed race/ethnicity)
 - 88% between the ages of 25-64 (of those who disclosed age)
- > Not all respondents answered all questions



Mariners tend to be physically & mentally healthy

							_
	Physical Health		Menta	Mental Health		Sleep Quality	
	n=1274		n=1	n=1268		n=1264	
	n	%	n	%	n	%	
Excellent	146	11%	206	16%	94	7%	
Very Good	438	34%	384	30%	243	19%	
Good	480	38%	366	29%	350	28%	
Fair	185	15%	250	20%	391	31%	
Poor	25	2%	62	5%	186	15%	_

Question: In general, how would you rate your [physical health/mental health/sleep quality] now?



Prevalence of mental health outcomes

Depression: 20.7%

Anxiety: 22.7%

Suicidal Ideation: 8.9%

High Perceived Stress: 38.2%

PTSD: 18.4%

More than half of respondents likely had at least 1 of the above outcomes



Mental Health Outcomes by Gender

Gender	Depression n=1312 % High	Anxiety n=1318 % High	Suicidal Ideation n=1319 % High	Perceived Stress n=1285 % High	PTSD n=1367 % High
Male	20.4%	21.8%	8.6%	37.0%	17.3%
Female	21.0%	33.6%	12.0%	48.0%	29.6%
No answer	15.7%	19.6%	8.8%	38.1%	16.6%
All	20.7%	22.7%	8.9%	38.2%	18.4%



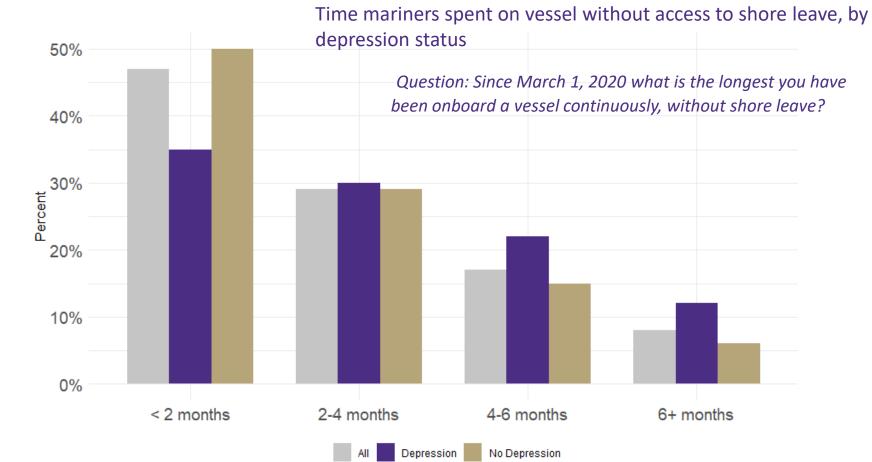
Mental Health Outcomes by Age

	Depression n=1312	Anxiety n=1318	Suicidal Ideation n=1319	Perceived Stress n=1285	PTSD n=1367
Age	% High	% High	% High	% High	% High
18-24	25.9%	32.2%	10.0%	41.4%	6.7%
25-34	28.7%	37.0%	13.8%	48.6%	22.0%
25-44	23.7%	25.1%	9.6%	43.2%	20.6%
45-54	18.8%	19.7%	5.9%	36.0%	21.1%
55-64	16.5%	11.9%	7.0%	30.6%	17.2%
65+	12.6%	14.6%	5.6%	22.1%	17.8%
All	20.7%	22.7%	8.9%	38.2%	18.4%

What aspects of vessel life could contribute?

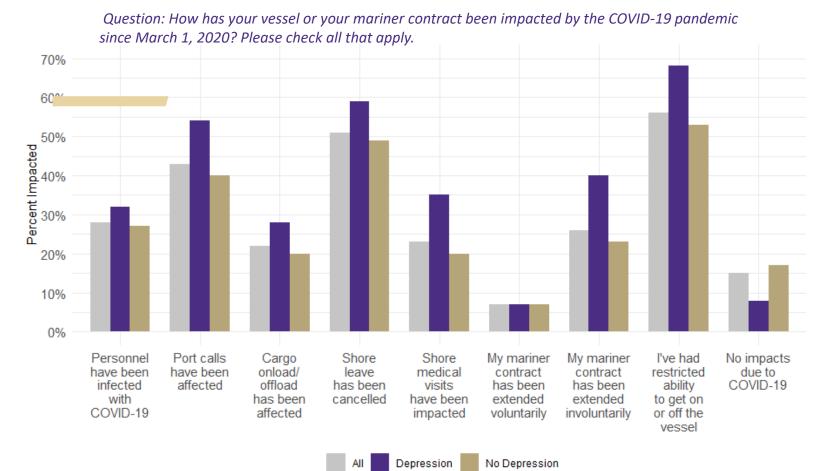
"There is no time off, no days off, food always has to be prepared for the crew, the galley is always going and busy 7 days a week for the entire trip. There is no break from constantly having meals prepared and no break away from the same people or seeing the same walls. Without port visits or shore leave it becomes the same day over and over again and seems like it will never end. I have watched new galley staff come onboard and are burned out within a month because of the constant always busy always working."



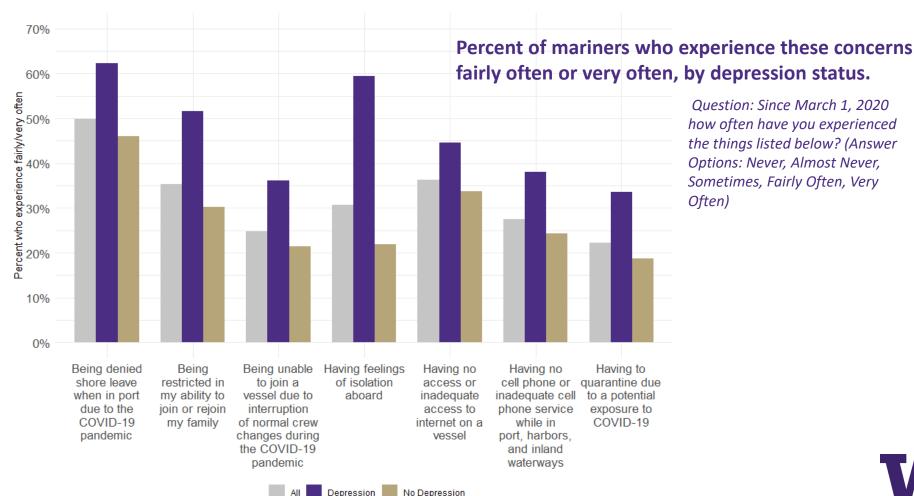




How has COVID impacted mariner contract, by depression status







Question: Since March 1, 2020 how often have you experienced the things listed below? (Answer Options: Never, Almost Never, Sometimes, Fairly Often, Very Often)



Mariners like their jobs

	% that agree or strongly agree			
	Not			
	All	Depressed	Depressed	
I like the people I work with.	90.7%	82.8%	92.7%	
I like doing the things I do at work.	92.6%	84.4%	94.7%	



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			Not
	All	Depressed	Depressed
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I get enough time to relax and recharge when on the vessel.	62.4%	47.3%	66.0%
If I am feeling sad or stressed there is usually someone on the vessel I can talk to.	51.8%	35.2%	55.8%



Most mariners feel supported at work

-			
	All	Depressed	Not Depressed
Vessel senior officers generally encourage employees to work in accordance with safety rules, including COVID-19 protocols.	89.9%	83.2%	91.6%
Vessel senior officers encourage the crew to get mental health help if needed.	65.0%	47.5%	70.2%
Organization's management generally encourage employees to work in accordance with safety rules, including COVID-19 protocols.	85.6%	77.4%	88.1%
Organization's management encourage the crew to get mental health help if needed.	61.8%	46.1%	66.3%



Mental Health Communications

"Mental health training company sends out is not helpful at all as it does not pertain to mariners. In one of the [trainings] some of the tools they suggest to help with mental stress are: talk to your family, go outside for a walk."

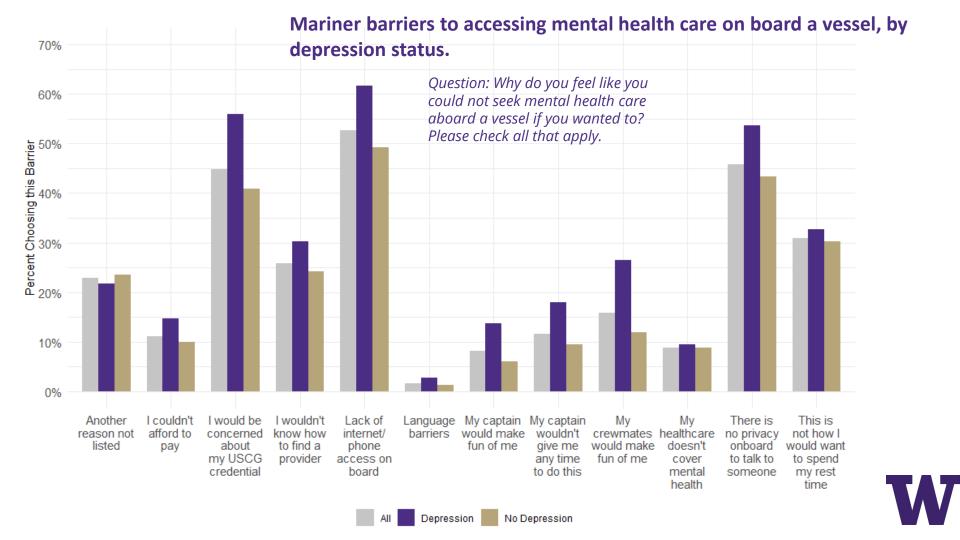
60% of respondents reported NO communications or training on mental health during the pandemic.

Barriers to accessing care

"Mental health care is a literal joke on board. There are no accommodations made while on board. Even when management explicitly states that mental health care accommodations should and will be made, it is made clear by senior officers that any request will be denied and seen as negative behavior."

Nearly 70% of respondents said they would not be able to start or maintain mental healthcare while aboard a vessel.





Initial Conclusions

- > Mariners like their jobs and are typically healthy
- > Rate of adverse mental health outcomes warrants intervention and ongoing surveillance
 - Rate not evenly distributed
 - How much of a factor was COVID?
- > Mariners are frustrated by lack of shore leave and internet/phone
- > Mariners are concerned about their families & work schedules
- > Mariners want it to go back to "normal"

Recommendations

- > Increase surveillance of mental health in this population
- > Appropriate training/communication is needed to around mental health
- > **Increased privacy** on board for accessing mental healthcare
- > Mental healthcare that can be accessed without internet/phone
- > **Increasing social support on board:** 48% of respondents said they don't have someone on the vessel to talk to
- > Focusing on the needs of women, younger, and URM mariners
- Firm reporting policies for bullying/not supporting access to Mental Health care services



Thank you!

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http://deohs.Washington.edu/mariner-mental-health

