Questionnaire on Work Exposure, Musculoskeletal Pain, and Performance among High-Performance Marine Craft Personnel

This survey investigates work exposure, musculoskeletal pain, and performance among high-performance marine craft personnel, and your participation is important as you have relevant skills. In total, it contains about 25 questions which take roughly 10 minutes to complete.

Your responses are strictly confidential, will be processed anonymously, and are used only for this investigation.

Please read the questions carefully and answer honestly.

Thank you for your time.
EXPOSURE AND PERFORMANCE MODULE (ADMINISTERED DAILY)

The following questions concern your last work shift (i.e., the one you just completed or are about to complete just now).

1. How many hours of this work shift did you spend at sea (i.e., away from the pier)?
   Please include time inactive (e.g., breaks, sleep at work, or standby).
   [DROPDOWN LIST] hours

2. How would you rate ride quality aboard the craft during this work shift?*
   Ride quality refers to the comfort of the boat ride.
   □ Very smooth *(good comfort with no or very few bumps)*
   □ Smooth
   □ Rough
   □ Very rough *(considerable discomfort or strain as a result of sea state, vessel speed, or both)*

* Condition: >0 hours selected in item 1.

3. Please select the craft you worked onboard during this shift:* 
   If you worked onboard more than one craft, select them in the order you were on them, starting with “1” for the first craft.
   □ Craft ID 1**
   □ …
   □ Other

* Condition: >0 hours selected in item 1. ** Craft ID 1 used as an example.

4. How familiar are you with Craft ID 1***?
   □ I have a lot (months) of experience working aboard that particular craft
   □ I have some (weeks) experience working aboard that particular craft
   □ I have no or almost no (days) experience working aboard that particular craft

* Condition: Craft ID selected in item 3. ** Craft ID 1 used as an example.

5. Please select the options that best describe your work at sea during this shift:* 
   Multiple options possible.
   □ Patrol
   □ Search and Rescue
   □ Transport *(person or cargo)*
   □ Firefighting
   □ Law enforcement or other offensive mission
   □ Other

* Condition: >0 hours selected in item 1.
6. What was your main task at sea during this work shift?*
   - Craft driving
   - Craft navigation
   - Work on deck
   - Work on engine or other machinery
   - Active duty onboard (e.g., lookout or equipment operator)
   - Passenger
   - Other

* Condition: >0 hours selected in item 1.

7. Did you perform your main task on open deck during this work shift?*
   - No
   - Yes

* Condition: >0 hours selected in item 1.

8. What equipment were you wearing at sea during this work shift?*
   Multiple options possible.
   - Helmet
   - Vest (e.g., body armour)
   - Weapon or equipment belt
   - Survival suit (i.e., immersion suit or dry suit)
   - Night vision goggles
   - Other
   - None

* Condition: >0 hours selected in item 1.

9. Which body posture best describes your work at sea during this shift?*
   - Sitting regardless of sea condition
   - Standing regardless of sea condition
   - About half the time sitting and half the time standing
   - Mainly sitting, but standing in rough sea conditions
   - Mainly standing, but sitting in rough sea conditions

* Condition: >0 hours selected in item 1.

10. How much time did you spend at sea after dark during this work shift?*
    - 0%
    - 25%
    - 50%
    - 75%
    - 100%

* Condition: >0 hours selected in item 1.
11. Please select the option that best describes this work shift's...

...sea conditions?

☐ Calm (Like a mirror.)
☐ Smooth (Ripples or wavelets without or with few white caps.)
☐ Moderate (Small waves with breaking crests. Fairly frequent white caps.)
☐ Rough (Long waves and very frequent white foam crests. Some sea spray.)
☐ High (High waves whose crests sometimes roll over. Dense white foam. Large amounts of sea spray.)

...wind conditions??

☐ Calm
☐ Light breeze
☐ Moderate breeze
☐ Strong breeze
☐ Gale

...sea spray??

☐ Very little
☐ Some
☐ Moderate
☐ Much
☐ Very much

...visibility?

Refer to the visibility that affected your work the most (e.g., inside boat: low light, instrument back light etc; outside boat: fog, sunshine reflection etc).

☐ Excellent
☐ Very good
☐ Good
☐ Acceptable
☐ Poor

...noise level?

☐ Quiet
☐ Faint
☐ Moderate
☐ Uncomfortable
☐ Intolerable

...temperature?

Refer to the temperature that affected you the most.

☐ Uncomfortably hot
☐ Hot
☐ Comfortable
☐ Cold
☐ Uncomfortably cold

* Condition: >0 hours selected in item 1. ** Condition: 'Yes' selected in item 7.
12. Did you suffer from headache during this work shift?

☐ No, not at all
☐ Yes, for a short period
☐ Yes, for a long period
☐ Yes, for nearly the entire work shift

13. How would you rate your ability to concentrate during this work shift?

☐ Very high
☐ High
☐ Low
☐ Very low

14. How would you rate your ability to make decisions during this work shift?

☐ Very high
☐ High
☐ Low
☐ Very low

15. How would you rate your ability to remember things during this work shift?

☐ Very high
☐ High
☐ Low
☐ Very low

16. Do you feel tired right now?
   ‘Right now’ refers to the end of the past work shift

☐ No, I feel completely rested
☐ Yes, a little tired
☐ Yes, very tired
☐ Yes, exhausted

17. How would you rate your working performance during this shift?

☐ Very good
☐ Good
☐ Moderate
☐ Poor
☐ Very poor
18. How would you rate the craft’s performance with respect to this shift’s activities?*

☐ Very good *(craft performed well in the conditions)*
☐ Good
☐ Moderate
☐ Poor
☐ Very poor *(craft was unable to cope with the conditions)*

* Condition: >0 hours selected in item 1.

19. How suitable were the craft ergonomics (e.g., controls, equipment, and/or interior of the sea vessel) for this work shift’s missions?*

☐ Perfectly suitable
☐ Good, but there is room for improvement
☐ Not so good, they reduced my work performance
☐ Poorly suitable

* Condition: >0 hours in selected item 1.
PAIN MODULE (ADMINISTERED WEEKLY)

The following questions concern the past 7 days.

20. Have you experienced pain, ache, or discomfort during the past 7 days?
   - ☐ No, and I was not taking pain relief medication
   - ☐ No, but I was taking pain relief medication
   - ☐ Yes

21. Please select the areas in which you experienced pain, ache, or discomfort during the past 7 days?*

*Condition: ‘Yes’ selected in item 20.
Please select all periods during which you experienced neck pain, ache, or discomfort during the past 7 days:

Please mark relevant time periods by clicking the attached boxes. Red boxes indicate selected time periods.

<table>
<thead>
<tr>
<th>Day-time</th>
<th>Monday</th>
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<th>Wednesday</th>
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* Condition: Body area selected in item 20 AND ≤3 body areas selected in total. ** Neck used as an example.

Please rate the intensity that best describes your average neck pain, ache, or discomfort during the past 7 days:

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<tr>
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<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>7</th>
<th>8</th>
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<tr>
<td>No pain</td>
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* Condition: Body area selected in item 20 AND ≤3 body areas selected in total. ** Neck used as an example.

Did the neck pain, ache, or discomfort during the past 7 days reduce your work ability?

☐ No, not at all
☐ Yes, somewhat
☐ Yes, a lot (e.g., it required me to temporarily change work task)
☐ Yes, it required sick leave

* Condition: Body area selected in item 20 AND ≤3 body areas selected in total. ** Neck used as an example.
Please select the area in which you experienced the worst** pain, ache, or discomfort during the past 7 days?*

* Please mark the body area by clicking the attached box. A red box indicate a selected body area.

* Condition: ≥4 body areas selected in item 20. ** An identical item also provided for the least painful area.

Please select all periods during which you experienced pain, ache, or discomfort in the area with the worst** pain during the past 7 days:* 

* Please mark relevant time periods by clicking the attached boxes. Red boxes indicate selected time periods.

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<tr>
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* Condition: ≥4 body areas selected in item 20. ** An identical item also provided for the least painful area.
Please rate the intensity that best describes your average pain, ache, or discomfort in the area with the worst pain during the past 7 days:

- □ No pain
- □ 1
- □ 2
- □ 3
- □ 4
- □ 5
- □ 6
- □ 7
- □ 8
- □ 9
- □ 10
- □ Worst possible pain

* Condition: ≥4 body areas selected in item 20. ** An identical item also provided for the least painful area.

Did the pain, ache, or discomfort in the area with the worst pain during the past 7 days reduce your work ability?*

- □ No, not at all
- □ Yes, somewhat
- □ Yes, a lot (e.g., it required me to temporarily change work task)
- □ Yes, it required sick leave

* Condition: ≥4 body areas selected in item 20. ** An identical item also provided for the least painful area.
MISSING DATA MODULE (ADMINISTERED FOLLOWING RETURN AFTER FAILURE TO RESPOND)

1. Please select the reason for not completing the questionnaire *last week*:
   - [ ] I did not have the possibility to do it
   - [ ] I forgot
   - [ ] I was not at work
   - [ ] I was too tired
   - [ ] I was on sick leave related to pain, ache, or discomfort
   - [ ] Other

* Last week used as an example