



Occupational Heat Stress Profiles in Selected Workplaces in India

Main Study Questionnaire

Part 1 General Information about Person Interviewed and the Organization She/He Represents

1. Name:
2. ID No:
3. Date of interview:
4. Name of the interviewer:
5. Name of the industry:
6. Location of the industry:
7. Type of industry:
8. Age:
9. Age group: ☐₁ 10–20/☐₂ 21–30/☐₃ 31–40/☐₄ 41–50/☐₅ 51–60/☐₆ 61–70
10. Sex: ☐₁ Male/☐₂ Female
11. Education: ☐₁ Illiterate/☐₂ Primary/☐₃ Secondary/☐₄ Higher Secondary/☐₅ University/
☐₆ Polytechnic/Diploma
12. Designation: ☐₁ Worker/☐₂ Supervisory/☐₃ Manager
13. Worker category:
14. Smoking: ☐₁ Smoker/☐₂ Non Smoker/☐₃ Ex smoker
15. Consuming alcohol: ☐₁ Yes/☐₂ No/☐₃ Ex
16. Any existing illness: ☐₁ Diabetes/☐₂ Hypertension/☐₃ Respiratory illness, specify/☐₄ Others, specify/
☐₅ None

Part 2 Questions Concerning the Type of Work

1. Type of work: ☐₁ Light/☐₂ Moderate/☐₃ Heavy/☐₄ Very Heavy
2. What was your previous job and where (relating to temp)? _____
3. How long you are employed here? _____ years/months (more than 6 months means acclimatized)
4. How many hours per day do you usually work excluding regular break timings? _____
5. Do you work near a direct heat source(naked flame/hot air/outdoors/radiant heat)
☐₁ Yes/☐₂ No
6. Is the place you work well-ventilated? ☐₁ Yes/☐₂ No
7. Do you have additional breaks during summer? ☐₁ Yes/☐₂ No
 - a. If yes, mention no. of hours/minutes _____

Part 3 Questions in Relation to Heat Exposure at Work

1. Are you comfortable with the ambient temperature? ☐₁ Yes/☐₂ No
2. Is heat exposure a problem during the hot season? ☐₁ Yes/☐₂ No
3. How many months do you feel hot /uncomfortably hot in this workplace?
☐₁ 1–3 months/☐₂ 4–6 months/☐₃ 7–9 months/☐₄ 9–12 months/☐₅ Never
4. Describe how bad the heat stress can be in the hot season.
☐₁ Extremely bad/☐₂ Very bad/ ☐₃ Bad/☐₄ Manageable/☐₅ No stress at all

Part 4 Questions Concerning Impacts of Heat on Health

1. Have you ever had these symptoms at work?

- a. Excessive sweating ☐₁ Yes/☐₂ No
- b. Muscle/Heat cramps ☐₁ Yes/☐₂ No
- c. Thirst ☐₁ Yes/☐₂ No
- d. Tiredness/weakness/☐₁ Yes/☐₂ No
- e. dizziness☐₁ Yes/☐₂ No
- f. headache ☐₁ Yes/☐₂ No
- g. nausea or vomiting☐₁ Yes/☐₂ No
- h. fainting☐₁ Yes/☐₂ No
- i. Prickly heat ☐₁ Yes/☐₂ No
- j. Heat stroke ☐₁ Yes/☐₂ No
- k. Others _____

Part 5 Questions Concerning Impacts of Heat on Worker's Productivity

1. Have you ever taken sick leave/permission due to heat? ☐₁ Yes/☐₂ No

a. If yes, approx. how many hours/days in a week/month? _____

2. Have you lost any wages due to absenteeism in summer months? ☐₁ Yes/☐₂ No

a. If yes, how much _____? (currency)

3. Have you ever been advised/ever been admitted in hospital/medical centre to take off due to heat related illness? ☐₁ Yes/☐₂ No

a. If yes, approximately how many days _____

4. How does heat affect other aspects of your work (during hot seasons)

☐₁ Absenteeism/☐₂ Less productivity/☐₃ Irritation/Interpersonal issues/Work related issues with manager/☐₄ Take more time to complete same task

5. Do you have production target? ☐₁ Yes/☐₂ No

a. If Yes, how much? _____

6. Do you complete your production target? ☐₁ Yes/☐₂ No

a. If no, how much target is not completed? _____units

7. To achieve production target or complete work do you have to work extra hours?

☐₁ Yes/☐₂ No

a. If yes, how many extra hours _____

Part 6 Questions Concerning Impacts of Clothing on Heat Stress and Productivity

1. Dress material of the workers (Indian equivalent to ACGIH)

☐₁ Breathable cotton/☐₂ Thick cotton overall/☐₃ Rayon/Nylon/
☐₄ Plastic PPE/☐₅ Others _____

2. Worker perception about dress Material of the worker:

☐₁Comfortable/☐₂ Moderately comfortable/☐₃ Uncomfortable/☐₄ Others _____

3. If uncomfortable, can you give any suggestions to improve? _____

4. Do you feel hotter with uniform/Does the Dress Material increase heat stress/comfort?

☐₁ Sure/☐₂ Maybe/☐₃ Not sure/☐₄ No, not at all

5. Does clothing reduce your work output?

☐₁ Sure/☐₂ Maybe/☐₃ Not sure/☐₄ No, not at all

Part 7 Questions Concerning Coping Mechanisms

1. How do you limit heat exposure/cope with heat exhaustion, when needed?
☐₁ take rest/☐₂ Change/remove clothing/☐₃ drink water/☐₄ cool shower, bath, or sponge bath/☐₅ move to an air-conditioned/cooler environment/☐₆ any other method, do specify _____
2. Is sufficient water available at all times when you need it? ☐₁ Yes/☐₂ No
3. Do you drink water at work? ☐₁ Yes/☐₂ No
 - b. If yes, how much? _____
4. Do you take any traditional special diet to cope with heat? ☐₁ Yes/☐₂ No
5. What traditional or other methods do you adopt for coping with heat?

6. Do you spend more money during hot seasons to cope with heat? ☐₁ Yes/☐₂ No
 - a. If yes, specify _____ (Currency units)
7. Do you spend more time to cope with heat? ☐₁ Yes/☐₂ No
 - a. If yes how much _____ (min/h)—convert to % of productivity time or personal time
8. Does the time spent on coping heat impact your social life? ☐₁ Yes/☐₂ No
9. How does it affect your social life? ☐₁ Moderately/☐₂ Highly/☐₃ Extremely/☐₄ No impact

Part 8 Questions Concerning Access to Toilets

1. Do you have access to toilets at work? ☐₁ Yes/☐₂ No

Part 9 Questions If You Have Access to Toilets

1. Do you use the toilets? ☐₁ Yes/☐₂ No
 - a. If yes: How often
 - a. 1–2 times per day
 - b. 3–4 times per day
 - c. 5–6 times per day
 - d. >6 times per day
 - b. If no: Why not
 - a. They are too far away
 - b. Difficulties to get away from work
 - c. They are too dirty
 - d. Others
2. Can you talk about it in the open? ☐₁ Yes/☐₂ No
 - a. If no: Why not
 - a. It makes you feel uncomfortable
 - b. It is taboo
 - c. People around you would treat you outrageous
 - d. Others

Part 10 Questions If You Don't Have Access to Toilets

1. How often do you go to urinate and defecate?
 - a. 0 times
 - b. 1–2 times

- c. 3–4 times
 - d. 5–6 times
 - e. >6 times
- If b–e:
- 2. Where do you go to urinate and defecate?
 - a. An hidden area (small building *etc.*)
 - b. In the forest
 - c. On the streets
 - d. Others
 - 3. Do you go alone? ☐₁ Yes/☐₂ No
 - 4. Do you feel comfortable with that option? ☐₁ Yes/☐₂ No
 - a. If no: Why not?
 - a. Feel scared
 - b. Needs to hold it for longer than convenient
 - c. Feel uncomfortable
 - d. Others
 - 5. Have something inconvenient happened to you when you go for urination or defecation? ☐₁ Yes/☐₂ No
 - a. If yes: What have happened
 - a. Bitten by an animal
 - b. Someone has been watching
 - c. Assaulted
 - d. Others
 - 6. Do you feel that you have to hold it for longer time than convenient? ☐₁ Yes/☐₂ No
 - a. If yes: For how long approximately?
 - a. 1–2 h
 - b. 3–4 h
 - c. 4–5 h
 - d. >6 h
 - 7. Do you sometimes have to stay home from work because of the toilet situation during some stomach infection or similar situation? ☐₁ Yes/☐₂ No
 - a. If yes: How often
 - a. Once per year
 - b. 2–5 times per year
 - c. 6–11 times per year
 - d. Once per month
 - e. More than 1 time per month
 - 8. Do you think your working situation would be better if you had access to toilets? ☐₁ Yes/☐₂ No

Part 11 Questions Concerning Reproduction History and Menstrual History

- 1. Is your menstrual cycle regular? ☐₁ Yes/☐₂ No/ ☐₃ Others
 - a. If yes: Can you work during your menstrual cycle? ☐₁ Yes/☐₂ No/☐₃ Others

- b. If no: Why not?
 - a. Nowhere to take care of sanitary pads
 - b. Feel to dirty
 - c. Not allowed
 - d. Lack of toilets
 - e. Others
2. Do you have access to sanitary pads during your menstrual cycle? ☐₁ Yes/☐₂ No
3. Do you have access to a place to change sanitary pads during your menstrual cycle? ☐₁ Yes/☐₂ No
 - a. If yes: Do you go there? ☐₁ Yes/☐₂ No
 - b. If no: Why not
 - a. It is too far away
 - b. It is to dirty
 - c. It is not private enough
 - d. Afraid that someone will be aware of you menstrual cycle
 - e. Others
4. If you don't have access: How do you manage?
 - a. Go somewhere else
 - b. Wait the whole day
 - c. Stay home from work
 - d. Others

Part 12 Questions Concerning Access to Drinking Water

1. Do you have access to drinking water at your work? ☐₁ Yes/☐₂ No
 - a. If yes: From where do you get that water?
 - a. From a water tank
 - b. Water bottles
 - c. A river or lake *etc.* close to the area
 - d. Others
2. Do you drink when you feel thirst? ☐₁ Yes/☐₂ No
 - a. If no: why not?
 - a. Not access to water
 - b. It will be to difficult to hold it
 - c. The work do not allow it
 - d. Others
3. Do you think you would drink more if you had better access to toilets? ☐₁ Yes/☐₂ No
 - a. If no: Why not?
 - a. The access to water is not good
 - b. The work does not allow it
 - c. Others

Part 13 Questions Concerning Effects on Daily Life

1. Does the toilet situation impact your social life? ☐₁ Yes/☐₂ No

- a. If yes: How?
 - a. Have to stay home more than if there had been toilets
 - b. Feeling tired
 - c. Others

Part 14 Questions Concerning Urinary Tract Infection

1. Do you have burning sensation during urination? ☐₁ Yes/☐₂ No
 - a. If yes: How often?
 - a. Every day
 - b. Few days a week
 - c. Once a week
 - d. Less than once a week
 - b. If yes: For how long?
 - a. The last week
 - b. The last month
 - c. The last 6 months
 - d. Longer than 6 months
2. Do you have difficulties to hold it? ☐₁ Yes/☐₂ No
3. Do you feel difficulty while urinating even if it is needed? ☐₁ Yes/☐₂ No
 - a. If yes: How often?
 - a. The last week
 - b. The last month
 - c. The last 6 months
 - d. Longer than 6 months
4. Do you think this problem would have been better if you had better access to toilets?
☐₁ Yes/☐₂ No
5. Have you ever been admitted to hospital/medical centre due to urinal or defecation problems?
☐₁ Yes/☐₂ No
 - a. If yes: Approximately for how many days? _____

Part 15 Questions Concerning Kidney Problems

2. Have you noticed changes in your urine volume? ☐₁ Yes/☐₂ No
3. Do you have excessive tiredness or skin itching? ☐₁ Yes/☐₂ No
4. Do you have numbness or swollen legs or hands due to water retention?
☐₁ Yes/☐₂ No
 - a. If Yes to 1,2 and 3, What is the color of your urine?
 - (a) Reddish
 - (b) Dark Yellow
 - (c) Yellow
 - (d) Colorless
 - (e) Have not noticed
 - (f) Don't know
5. Have you been treated for kidney stones? ☐₁ Yes/☐₂ No
 - a. If yes: When? _____
6. Do you feel pain in the bottom of your back? ☐₁ Yes/☐₂ No

- a. If yes: For how long?
 - (a) The last week
 - (b) The last month
 - (c) The last 2–6 month
 - (d) Longer than the last 6 months
7. Do you think this problem would have been better if you had better access to toilets?
☐₁ Yes/☐₂ No
8. Have you ever been admitted to hospital/medical centre because of kidney problems?
☐₁ Yes/☐₂ No
 - a. If yes: Approximately for how many days? _____

Part 16 Questions concerning dehydration

1. Do you feel dehydrated? ☐₁ Yes/☐₂ No
2. Do you have any pressure ulcers? ☐₁ Yes/☐₂ No
3. Do you have any other skin conditions? ☐₁ Yes/☐₂ No
4. Do you have nausea or fainting spells? ☐₁ Yes/☐₂ No
5. Have you ever been admitted to hospital/medical centre due to dehydration?
☐₁ Yes/☐₂ No
 - a. If yes: Approximately for how many days? _____
6. Do you think this problem would have been better if you had better access to toilets?
☐₁ Yes/☐₂ No

Part 17 Questions Concerning Drinking Defecated Water

1. Do you feel constant hunger even if you are eating? ☐₁ Yes/☐₂ No
2. Do you have diarrhea? ☐₁ Yes/☐₂ No
3. Do you have diarrhea with blood and mucus? ☐₁ Yes/☐₂ No
4. Do you feel swollen in your stomach? ☐₁ Yes/☐₂ No
 - a. If yes: Which part?
 - (a) Upper part
 - (b) Lower part
 - (c) The whole belly
5. Do you feel itching around anus? ☐₁ Yes/☐₂ No
6. Do you feel cramps in your stomach? ☐₁ Yes/☐₂ No
7. Do you have fever? ☐₁ Yes/☐₂ No
 - a. If yes: How often
 - (a) Every day
 - (b) 1–6 days per week
 - (c) A few days per month
 - (d) A few days per year
 - (e) Less than a few days per year
8. Do you think this problem would have been better if you had better access to toilets?
☐₁ Yes/☐₂ No
9. Have you ever been admitted to hospital/medical centre because of defecation problems?
☐₁ Yes/☐₂ No
 - a. If yes: Approximately for how many days? _____

Part 18 Questions Concerning Menstrual Cycle

1. Do you wash yourself regularly during your menstrual cycle? ☐₁ Yes/☐₂ No
2. Do you feel itching around your genitals? ☐₁ Yes/☐₂ No

- a. If No, Do you think this problem would have been better if you had better access to toilets?
☐₁ Yes/☐₂ No

Part 19 Questions Concerning Other Health Effects

1. Do you feel any other health problems than the ones mentioned above? ☐₁ Yes/☐₂ No
- a. If yes: What kind of health problems?
- _____
- b. If yes: Do you think they may be caused by lack of toilets? ☐₁ Yes/☐₂ No
2. Do you think it would be less health problems if you would drink more? ☐₁ Yes/☐₂ No



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