



A Qualitative Study on Firefighter Work Health Priorities

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Mitigating Potential Bias

- CIHR and SSHRC are federal funding agencies that enabled this research by supporting the costs (e.g., personnel, materials, services, travel, knowledge translation) of the research activities and will not profit from the study findings.

Learning Objective



To identify and prioritize firefighters' needs for research that will help improve their work health.

Background



- Firefighters provide essential services that require high intensity performance in stressful situations.
- The demands of shift work,¹⁻² physical exertion³ and exposure to critical events⁴⁻⁶ can place firefighters at risk of injury and gradual onset of physical⁷⁻¹³ and mental illness.¹⁴⁻¹⁵

Methods

- Interviews across Canada (n=52)
- Firefighters asked about research and their work health priorities
- Interviews recorded and transcribed
- Responses: descriptive content analysis to identify themes



Methods: Musculoskeletal Health Interview Questions

1. What are firefighters' concerns about their musculoskeletal (MSK) health?
2. What are the common MSK injuries experienced by firefighters?
3. How do you think MSK problems / injuries affect firefighters and their families?
4. How do you think MSK problems / injuries affect firefighting?
5. What is your employer's return-to-work process for firefighters with MSK injuries?
6. What are the facilitators or things that can help an injured firefighter's return to firefighting?
7. What are the barriers or things that can hinder an injured firefighter's return to firefighting?
8. What types of things (i.e., interventions, tools, approaches) do you wish existed to help RTW situations around MSK problems/injuries?
9. What kinds of things do you think would help to prevent firefighters' MSK injuries?
10. What are some of the challenges in working to prevent firefighters' MSK injuries? Why may it be difficult?
11. What types of things do you wish existed to help improve firefighters' MSK work health?
12. How can research be used to help improve firefighters' MSK work health?

Methods: Mental Health Interview Questions

1. How do you think stress and mental health injuries affect firefighters and their families?
2. How do you think stress and mental health injuries affect firefighting?
3. What access does your team have to mental health supports?
4. What is your employer's return-to-work process for firefighters who are on leave due to stress or mental health injuries?
5. What are the facilitators or things that can help an injured firefighter's return to firefighting?
6. What are the barriers or things that can hinder an injured firefighter's return to firefighting?
7. What types of things (i.e., interventions, tools, approaches) do you wish existed to help RTW situations around stress and mental health injuries?
8. What kinds of things do you think would help to prevent firefighters' mental health injuries?
9. What are some of the challenges in working to prevent firefighters' mental health injuries? Why may it be difficult?
10. What types of things do you wish existed to help improve firefighters' mental health?
11. How can research be used to help improve firefighters' mental health?

Results - Demographics

- Ranks (excluding Atlantic Canada participants)
 - 20 Career
 - 11 Lieutenants or Captains (includes Acting)
 - 7 Management (Assistant Deputy Chief/Deputy Chief/Chief)
 - 1 Volunteer





Musculoskeletal Health Themes

Results: Musculoskeletal Injury

Injury Concerns

- General fitness/health
- Sprains
- Muscle strains

Body Areas at Risk

- Back
- Knees
- Shoulders

Impact of Injury

- Job fulfillment
- Family tasks
- Time off work



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Results: Musculoskeletal Health Return to Work

RTW Procedures

- Modified work
- Assessment by physician
- Slow/gradual return

RTW Facilitators

- Physiotherapy
- Access to information/resources
- Rehab (unspecified)

RTW Barriers

- Premature return
- Incomplete recovery
- Severity of injury



Results: Musculoskeletal Injury Prevention

Prevention

- Fitness training
- Reminders and continual training
- Proper technique

Challenges in Prevention

- Unpredictable work environment
- Other priorities during call other than injury prevention
- No warmup



Results: Musculoskeletal Health Research

Wishes

- FF specialized fitness program
- Access to fitness equipment
- Access to professionals

Research

- Prevention methods
- Analysis of patterns in injuries
- Prevalence of injuries





Mental Health Themes

Results: Mental Health Injury

Reasons for Injury

- Calls involving children
- Trauma
- Death/multiple casualties

Impact of Injury

- Tension within family
- Stress brought home
- Unable to return to context of injury
- Mood and flashbacks



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Results: Mental Health Return to Work

RTW Process

- Assessment by doctor
- Same as with physical injury
- No formal process known



RTW Facilitators

- Peer support
- Critical Incident Stress Management debriefing
- Access to professional psychiatric help

RTW Barriers

- Stigma
- Lack of professional help, especially FF focused
- Perception that MH issues are a sign of weakness

Results: Mental Health Injury Prevention

Prevention

- Education
- Talking/debriefing
- Mental preparation for new recruits and before work

Challenges in Prevention

- Macho mentality
- Nature of the job
- Failure to reach for and accept help



Results: Mental Health Research

Wishes

- More awareness and education
- Easier access to professional care
- Better acceptance from peers through education

Research

- Links between call and trauma to FF
- Effectiveness of current programs
- Best method to prevent or treat MH injury





Discussion

Discussion: Musculoskeletal Health

- General health and muscle sprains and strains (back, shoulders, knees) were the firefighters' most common mentioned health concerns.
- The impact of MSK injuries on firefighters' ability to do job tasks and the negative effect on family and daily life were concerns.
- Physiotherapy was identified as a needed service to manage MSK injury.
- The unpredictable work environment of the fire service was acknowledged as a barrier in preventing MSK injuries.

Discussion: Mental Health

- Exposures to traumatic events such as calls involving children or multiple casualties were seen as the major source of mental health injuries.
- Many participants stated the importance of peer support in coping with these stressors.
- The “macho mentality” of the firefighter culture and the stigma associated with mental issues were recognized as major barriers in preventing mental health injuries and getting help when needed.
- Many participants discussed bringing job stress home and its influence on family relationships.

Discussion



- Difficulty in accessing professional help and its associated financial costs were identified as challenges in the prevention and treatment of both musculoskeletal and mental health injuries.
- Firefighters expressed the need to develop and tests treatment programs and services that were adapted to their specific needs.



Conclusions:

- Firefighter-specific musculoskeletal and mental treatment programs that can be accessed at minimal cost are priorities for firefighters.
- Preparedness programs that help mitigate the impact of critical events and strain injuries might consider family impact.

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