Physical Employment Standards

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Presentation Outline

Challenges with Physical Employment Standards

Developing Physical Employment Standards

Implementing Physical Employment Standards

Conference on Physical Employment Standards
Possible Decisions

1. True pass
2. True fail
3. False positive – “pass” when should fail
4. False negative – “fail” when should pass

Either 1 or 2 – minimal risk
Either 3 or 4 – much greater risk
Bona Fide Occupational Requirements (BFOR)
Canada Human Rights Act (CHRA) states that:

“…..discrimination by an employer, actual or prospective, is not illegal and does not constitute discriminatory practice...when it is based on Bona Fide Occupational Requirement (BFOR)”
A BFOR is a condition of employment which is imposed in the sincere belief that it is necessary for safe, efficient and reliable performance on the job and the requirements have been objectively established.
Current BFOR policy in Canada...

Arises from a decision by the Supreme Court Canada on:

The appeal of Tawny Meiorin

She was not re-hired as a wildland firefighter B.C. Ministry of Forests because she failed to meet the aerobic fitness standard
Why did Meiorin win?

- The claimant had established a case of adverse effect discrimination
  (in this case, because of gender. The decision was based on evidence that women are “less able to do aerobic work than men”)

- The Government did not show that it had accommodated the claimant to the point of undue hardship
  (could have...explored need for dual standard, altered work assignments, offered training, etc)
The “Meiorin Decision” led to a new 3-part “legal test” for BFORs in Canada.

This is the legal standard that must be met by employers.
To satisfy the 3-part legal test of a BFOR, an employer must justify “the...standard by establishing on the balance of probabilities...”

**Part 1**

That the employer adopted the standard for a purpose rationally connected to the performance of the job

**Part 2**

That the employer adopted the particular standard in an honest and good faith belief that it was necessary to the fulfillment of that legitimate work-related purpose; and
To satisfy the 3-part legal test of a BFOR, an employer must justify “the...standard by establishing on the balance of probabilities...”

Part 3

That the standard is reasonably necessary for accomplishment of that legitimate work-related purpose.

To show that the standard is reasonably necessary, it must be demonstrated that it is *impossible to accommodate* individual employees sharing the characteristic of the claimant without *undue hardship* upon the employer.
Challenges from the Court

Employers must...

• *Proactively* consider, incorporate and accommodate individual and group differences

Research must...

• Go beyond description of physical demands to identify the **MINIMUM** acceptable level

• Explore whether the minimum is the same for all groups (e.g., male and female)
Defending a Standard - Mission Impossible?
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Steps in Developing a Physical Employment Standard

1. Justify the need for a standard
2. Project management team
3. Analyze physical demands
4. Characterize essential tasks
5. Develop test protocol
6. Establish validity and reliability
7. Develop performance standards
8. Evaluate adverse impact
Validity Check (Course 43)

Question 5

The **Equipment Carry Test** reflects the physical demands of lifting and carrying gear on course.

- Strongly agree (SA) 6
- Agree (A) 6
- Neutral (N) 1
- Disagree (D) 0
- Strongly disagree (SD) 0

This kind of fitness is important for successful completion of the course.

- Strongly agree (SA) 6
- Agree (A) 6
- Neutral (N) 1
- Disagree (D) 0
- Strongly disagree (SD) 0
Reliability: First Test Score vs. “Best” Test Score

First Equipment Carry Test Time (min)

Best Equipment Carry Test Time (min)

$R = 0.97$

$R^2 = 0.95$

$SEE = 0.23 \ (14 \text{ s})$
Canadian Forces
Firefighter Physical Fitness Maintenance Evaluation (FF PFME)

10 work-related tasks, 9 task-to-task transitions on a measured-calibrated course

Valid simulation of fire-rescue operations

Time to complete test course infers fitness for duty
Mean (±SE) performance time over six trials of the CF FF Test (n = 51).

*Learning to do the test...* Large differences between Tests 1 and 2; 2 and 3

*Day to day variation...* Very small differences between Tests 4 and 5; 5 and 6
Fit for Duty?

Where does the standard come from?

Typically, standards are either:

- Normative-referenced
- Criterion-referenced

What is the difference?
Normative-referenced Standards

Typical approach is to test a representative sample of workers

Standard is based on observed performance from the sample

For example:
  • Mean score
  • Mean + 2 SD
  • Worst score
  • Best score
Normative-Referenced Standards

For example: Aerobic fitness for firefighters

Test large group of incumbent firefighters

Calculate mean, SD of sample

Mean + 2 SD represents ~95% of population

Standard may be set to reflect the characteristics of the population of interest

• Average, best, worst?
• “80% rule” - set the standard so that 80% of a lower performing sub-group can pass
“Sampling” the Workforce

Typical method for establishing performance standards

BUT...
What constitutes a representative sample?

Volunteers?

Should we “over-sample” for age, gender, ethnicity, etc? (e.g., Sothmann et al, 2004)
Criterion-referenced Standards

Standard is based on a criterion (or criteria) that can be associated with an acceptable rate of work

For example:
- Physiological responses to work at the desired intensity
- Expert judges used to identify acceptable rate of work
Setting the Standard – Role of Expert Judges

- Understand the link between the test and the job
- Identify the minimal acceptable rate of work
  *When would a supervisor intervene?*
- “sense of purpose”, “sense of urgency”, “mindful of safety”, “time-sensitive response”
- Qualifications
  - extensive experience (job and test)
  - supervisory position involving evaluation
  - big picture perspective
  - appreciate safe and effective work
  - understand required competencies
Role of Expert Judges

Selected “Work Samples”

Acceptable  Unacceptable

Faster  Slower

1  2  3  4  5  6  7  8  9
Setting and Implementing Standard

1. Identify the cut-score

2. Account for “disagreement”

3. Account for biological variability

Identify the “grey zone” and account for uncertainty
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Conference on Physical Employment Standards
Second International Conference on Physical Employment Standards

August 23-26, 2015
Canmore, Alberta

www.physedandrecrec.ualberta.ca/Research/PES2015/aspx
Conference Program Highlights

- **Keynote speakers (5)**
- **Plenary sessions on critical topics (12)**
  (e.g., legal and human rights, age, gender, protective clothing, environment, load carriage...)
- **Knowledge translation sessions (12)**
- **Original research presentations (~60)**

www.physedandrec.ualberta.ca/Research/PES2015/aspx
Why convene this conference?

Who should attend?

Comments or Questions?

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