The Royal Military College Physical Conditioning Optimisation Review: A 4 year project to improve physical health and fitness while reducing injuries
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Published: 17/04/2012

Document Version: Peer reviewed version

Link to publication in Bond University research repository.

Recommended citation (APA):

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The Royal Military College
Physical Conditioning Optimisation Review

LT R. ORR (Dept of Defence – Army)

The Initial PCOR

Aim of the review
- Review the PT program (progression, frequency, specificity, gender) and Sport Programs
- Review the current weight loading carrying continuum
- Review management of injured cadets
- Evaluate Military Self Defence within the curriculum
- Review nutrition and dietary habits.
- Review the current injury surveillance process
- Review physical training protocols and policies
- Review staff health, fitness and PT
- Id and review influences
The Initial PCOR

- Data Collection

- Heart Rate Data
The Initial PCOR

- Data Collection
  - Global Positioning Systems

The Physical Conditioning Optimisation Review

The Initial PCOR

- Data Collection
  - Field observation

The Physical Conditioning Optimisation Review
Data Collection
– Triangulation

Outcomes
– Recommendations: 66 endorsed, 7 pending, 9 rejected.
– A structured periodised conditioning program accommodating short and long injury recovery programs (Medical restrictions and Rehabilitation Platoon)
## The Initial PCOR

### The Physical Conditioning Optimisation Review

#### Phase of Training

<table>
<thead>
<tr>
<th>Phase of Training</th>
<th>Training Plan (18 Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical Developmental Phase</td>
</tr>
<tr>
<td></td>
<td>III (CLASS)</td>
</tr>
<tr>
<td>Sub Phase of Training</td>
<td>anatomical adaptation</td>
</tr>
</tbody>
</table>

#### Individual Fitness and Healthy Lifestyle

<table>
<thead>
<tr>
<th>Fitness</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metabolic Fitness</td>
<td>muscular fitness</td>
</tr>
<tr>
<td>Neurovascular Skills</td>
<td>injury prevention</td>
</tr>
<tr>
<td>Healthy Lifestyle</td>
<td>nutrition education</td>
</tr>
<tr>
<td>Physical Training and Fitness</td>
<td>physical hardening</td>
</tr>
</tbody>
</table>

#### Military Specific Fitness

<table>
<thead>
<tr>
<th>Fitness</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Carriage</td>
<td>upper body strength and endurance</td>
</tr>
<tr>
<td>Combat</td>
<td>lower body strength and power</td>
</tr>
</tbody>
</table>

#### Sports Specific Fitness

<table>
<thead>
<tr>
<th>Sports</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat</td>
<td>cardiovascular fitness</td>
</tr>
</tbody>
</table>

#### Remedial Training and Rehabilitation

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Developmental Phase</td>
<td>recruit</td>
</tr>
<tr>
<td>Physical Hardening Phase</td>
<td>recruit</td>
</tr>
<tr>
<td>Self-Management and Corp Specific Phase</td>
<td>recruit</td>
</tr>
</tbody>
</table>
The Initial PCOR

Weaknesses

– Time to complete review (71 days for an 18 month program) limited ability to ‘deep dive’ or capture external SME input
– Incomplete/inaccurate DIPP data
– Culture
  • Fault seeking fears / go ‘hard’
  • Postings and potential for recommendations to degrade and lessons learnt to be lost

Strengths

– Internal data management was very good (eg FMSS data, Post Activity Reports)
– Detailed phys cond programs and internal review of programs
– Context
  • Volume of data to allow triangulation
– Top cover and support
– Permission given to expand program to 4 years
The Continuing PCOR

- Benefits of continuing support
  - Ability to evaluate the impact of recommendations
PCOR Report 1 & RIP
Exercise SHAGGY RIDE

Review of Impact of LCC on Injuries

Major reduction of Electrolyte Imbalance Inj
Moderate reduction of Soft Tissue Inj

Length of Visible Light per Day

0 6 12 18 24

14h45 14h33
11h16 13h26

Start Ex  End Ex

Ex SR S1 07
Ex SR S2 07
The Physical Conditioning Optimisation Review

PCOR Report 1 & RIP
Exercise SHAGGY RIDE

Review of Impact of Recommendations

Major reduction of Electrolyte Imbalance Inj
Moderate reduction of Soft Tissue Inj

Exercise SHAGGY RIDE Report

Review of Impact of Recommendations

Major reduction of Electrolyte Imbalance Inj
Major reduction of Soft Tissue Inj

The Continuing PCOR

- Benefits of continuing support
  - Ability to adapt findings as required

PCOR Report 1 & RIP
Exercise SHAGGY RIDE

Implementation of Electrolytes

Decrease in training intent due to high CHO content
Electrolytes changed
The Continuing PCOR

- Benefits of continuing support
  - Ability to explore emerging topics/trends and drill deeper

Concerns over entry level fitness
Review of Selection Fitness and Day of Entry Fitness
Implementation of Bridging program
Review = Program works
Review of ICT
PCOR program works
Level does not change between ICT and II Class
Fitness lost in transition between classes
Semester break conditioning program implemented
PCOR Key Lessons

● Communication
  • Staff need to be onboard and understand the review and project intent as often changes will require effort on their part (blame-game concerns addressed)

PCOR Key Lessons

● Information/data
  • Quality and Quantity of sources (From policies to OH&S Reports)
  • Injury surveillance mechanisms valuable but tempered by reduced capture through poor completion
PCOR Key Lessons

Support
- Command support is vital for not only the work but for the implementation of recommendations

PCOR Key Lessons

Time
- To make long term changes you need a long term project (test, adjust, drill deeper and explore emerging trends) otherwise there is a tendency to reinvent the wheel
PCOR Outcomes

- Award (2009): The Training Command Safety Award: - Category 5 - Rehabilitation and Return to Work Award; and

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The RMC-D
Physical Conditioning Optimisation Review