The Royal Military College Physical Conditioning Optimisation review: A four year project to improve physical health and fitness while reducing injuries

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Available at: https://works.bepress.com/rob_orr/10/
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

HR [bpm]

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<th>Cursor Values</th>
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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
The Initial PCOR

- 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

#### Training Plan (18 Months)

<table>
<thead>
<tr>
<th>Phase of Training</th>
<th>Phase</th>
<th>3 Months</th>
<th>6 Months</th>
<th>6 Months</th>
<th>3 Months</th>
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</thead>
<tbody>
<tr>
<td>Physical Development Phase</td>
<td>(III CLASS)</td>
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<tr>
<td>Physical Hardening Phase</td>
<td>(II CLASS)</td>
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<tr>
<td>Self Management and Corp Specific Phase</td>
<td>(I CLASS)</td>
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</tbody>
</table>

#### Sub Phase of Training

- **Anatomical Adaptation**
  - Month 1: Foundation, Adaptation
  - Month 2: Enhanced, Adaptation
- **Complex Skills Development**
  - Month 3: Initial, Development
  - Month 4: Advanced, Development
- **Recruit**
  - Month 5: Foundation, Training
  - Month 6: Advanced, Training
- **Physical Hardening**
  - Month 7: Foundation, Training
  - Month 8: Advanced, Training
- **Recruit**
  - Month 9: Foundation, Training
  - Month 10: Advanced, Training
  - Month 11: Maintain, Training
  - Month 12: Corp Specific, Training

#### Individual Fitness and Healthy Lifestyle
- **Metabolic Fitness**
- **Neuromuscular Skills and Fitness**
- **Injury Prevention**
- **Healthy Lifestyle Education**
- **Personal Training and Fitness**

#### Military Specific Fitness
- **Load Carriage**
- **Complete Warfighting Skills and Fitness**

#### Sports Specific Fitness

#### Remedial Training and Rehabilitation

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The Physical Conditioning Optimisation Review

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The Physical Conditioning Optimisation Review
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

<table>
<thead>
<tr>
<th>Hours</th>
<th>Start Ex</th>
<th>End Ex</th>
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<tr>
<td>0</td>
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<td>14h33</td>
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<tr>
<td>6</td>
<td>11h16</td>
<td>13h26</td>
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</table>
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)

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
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