The impact of high mental toughness on the training and injury of amateur endurance athletes

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Aims

To explore the impact of high mental toughness on the training, injury and recovery of amateur endurance athletes:

• To understand the attributes and attitudes of amateur endurance athletes high in mental toughness
• To examine any relationship between mental toughness and frequency of injury in amateur endurance athletes
• To examine any relationship between mental toughness and overtraining syndrome in amateur endurance athletes

Methods

Design: Mixed method approach

Participants and recruitment

591 UK amateur endurance athletes completed online questionnaires

Eight participants scoring very high on mental toughness to took part in in-depth interviews.

Measures

Questionnaires of demographic, sport and training information

Sheard's (2013) Sports Mental Toughness Questionnaire

Thompson's (2008) Mini-Markers Questionnaire

Injury, overtraining and recovery questions.

Analysis

Questionnaire data analysed through independent ANOVAs, t-tests and Pearson chi-square tests.

Interviews analysed using IPA.

Results

The attributes of amateur endurance athletes with high mental toughness

• Were more likely to be male (t(589) = 3.48, p = .001), older (t(265) = -2.82, p = .005), have a private coach (t(589) = 2.31, p = .032), prefer to train alone (t (383)=2.21, p = .028) & train for longer (t(242) = -3.30, p = .001).

• They have higher levels of extroversion, openness & conscientiousness & lower levels of neuroticism with a multiple regression significantly predicting (F (5,585) = 62.67, p<.01) an athlete’s mental toughness score based on their extroversion, openness, conscientiousness & neuroticism scores.

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Dr. The physical and psychological impact of injury can be extensive.

Mental Toughness

A desirable attribute for sport and often prized by coaches. Incorporates traits or attributes including confidence, control, constancy, commitment, resilience and determination

Possibility that high mental toughness could see athletes able to ignore pain or niggles and continue training or racing when injured making them more susceptible to long term injury and associated risks.

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Discussion

Previous research identified 10 attributes and attitudes a mentally tough elite athlete would be expected to display.

1. Attentional control, concentration, discipline and focus
2. Commitment, resolve and obstinate drive towards obtaining success
3. Competitive and determined to succeed
4. Confident and have a strong self-belief in their own ability
5. Emotionally controlled and disciplined
6. Remains unfazed by or thrives on anything thrown at them
7. Incredibly motivated
8. Positive, optimistic outlook
9. Resilience and the ability to bounce back
10. High levels of extroversion

All 10 attributes and attitudes were identified in the mentally tough amateur athletes.

Mental toughness found to increase with age. Suggests either:

• spending time as an athlete will help a person develop mental toughness

• those strong in mental toughness remain in sport longer

Mentally tough more likely to have a coach. Those with coaches get injured less.

Perhaps higher risk of injury balanced out by coaches preventing athletes with niggles from continuing with training?

Prevalence of overtraining syndrome was 11% - much lower than the 20% in elite athletes suggested by Winsley and Matos. (2011). Suggests the forced rest and recovery which comes from working alongside training may protect amateur athletes from overtraining.

Implications for practice

• The levels of control an athlete has are important. Coaches should look out for those who have low control (worry about performing poorly, get overcome by self-doubt, become anxious by events they cannot control or get angry and frustrated when things do not go their way) and supervise these athletes closely.

• Communication is key. Coaches should insist on good quality, honest feedback & regular communication from their athletes. This communication should include discussions about niggles and minor causes of pain.

• We should continue teaching Mental Toughness skills to athletes.

References


