The Role of Mentality in the Performance and Goal Achievement of High School Spring Track Athletes

Review of Literature

- Runners must seek every source of development to continue to improve at high levels of competition (Loughran et al., 2013).
- An overlooked facet of training is mental training, the act of improving the body by strengthening the mind (Patrick and Hrycaiko, 1998).
- Complex nature of the mind makes it important to decipher which mental aspects are essential to address in mental training.

Previous Connections

- Group Efficacy: Individuals require multiple sources of support both at the personal and professional level: (i.e. parents, siblings, friends, or coaches.) (Prins, Aronson, Kafry, 1981)
- Mental Toughness: Athletes who display high levels of mental toughness are able to direct control over stress in their lives. (Kaiser et al., 2009)
- Commitment to Running: Commitment follows a dual pathway, harmonious and obsessive passion both are catalysts of persistent behavior that facilitate performance. (Vallerand et al., 2008)
- State of Mind: Individuals able to maintain positive state of mind show increased control in addressing and reaching goals. (Dietrich, 2013)
- Full Body Recovery: Overtraining can result in periods of staleness or burnout associated with plateaus in athletic performance where little improvement is experienced. (Costill, 1986)

Research Question

What correlations can be drawn between mental characteristics and goal achievement in high school spring track athletes?

H1: Athletes who most fully achieve their goals will be those who retain the highest levels of commitment to running throughout the season.
H2: Athletes who experience the most growth in their group environment questionnaire scores will also exhibit the most growth in goal achievement.
H3: Athletes who are able to consistently recover from training weeks will also be able to consistently achieve the goals they have set.
H4: Athletes with the highest initial mental toughness questionnaire scores will have the most success in reaching their midseason and end of season goals.
H5: Athletes who consistently achieve their goals will be those who retain high levels of positive state of mind.
H0: There will be no correlation between the respective mental characteristic and the athlete’s goal achievement.
Ages 13-18 years old
Spring track team

Sports Mental Toughness Questionnaire
Season goals they set at the beginning of the season.
Goals: Personal running goals that athletes wished to
athlete, maintaining motivation throughout the season.
Performance measured through goals set by athletes.

Methods

Beginning of Season
Goals: Personal running goals that athletes wished to
attain by the mid-season mark and goals that they
wished to attain by the end of the season.
Group Environment Questionnaire
Sports Mental Toughness Questionnaire
Commitment to Running Scale

Weekly Survey
- Positive State of Mind (March 2019)
- Recovery Cue (March & April 2019)

Middle of Season
Athletes noted how well they had reached the mid-
season goals they set at the beginning of the season.

Weekly Survey
- Positive State of Mind (March 2019)
- Recovery Cue (March & April 2019)

End of Season
Athletes noted how well they had reached the end of
season goals they set at the beginning of the season.

Group Environment Questionnaire
Sports Mental Toughness Questionnaire
Commitment to Running Scale

Surveying

Goals and Performance
- Performance measured through goals set by athletes.
- Personal goals align with future aspirations of each
athlete, maintaining motivation throughout the season.

Commitment to Running

- Significantly correlations: (End of season MT correlated with Personal
Goals) and (Beginning of Season MT scores correlated with Team
Goals)
- Opposing correlations confound implementation of MT

Results and Discussion

Group Efficacy

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- Significant correlation between end of season GEO scores and both
group performance and team goal achievement
- Athletes do not need to begin season with high GEO but can achieve
goals by developing a GEO mentality by the end of the season

Personal Goal Setting (PGS)

- Trend between PSM and goal achievement
- Most improved athletes and least improved athletes exhibited higher PSM scores than
mid-group
- Middle group of athletes may have been stressed
due to constantly coming up short of their goals

Conclusions

- 4 out of the 5 studied variables were noticeably significant: Group Efficacy, Commitment to Running, Mental Recovery, and Positive State of Mind.
- Specifically, athletes who develop a high GEO mentality by the end of the season are most likely to achieve their goals. Additionally, athletes who begin the season with and maintain high levels of CR and MR are prone to achieve their goals. However, CR scores have only been

Bibliography

- Donahue, E. G., Rip, B., & Vallero, R. J. (2009). When winning is everything: On passion, identity, and aggres-
sion in sport. Psychology of Sport and Exercise, 10(5), 526-537.