Overtraining and Burnout in Young English Athletes

Nuno Filipe Machado de Matos
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**ABSTRACT**

The purpose of this thesis was to investigate overtraining (OT) and burnout (BO) in young athletes. Very little data on the incidence of OT in young athletes is available, hence the purpose of the 1st study was to investigate the prevalence and symptomology of NFOR (non-functional overreaching) and OT in young English athletes practicing different sports and competing across all competitive levels. Data from 376 young athletes (age 15.00 ± 1.97 y) indicated that 29 % had experienced at least one episode of NFOR/OT, and that NFOR/OT was significantly higher at national and international competitive levels ($p < 0.01$). Presenting symptomology was similar to that reported in adults, with both training and non-training stressors identified as important associates: losses of appetite during periods of hard training, frequent injuries and feelings of a lack of recovery from training, combined with apathy, feeling intimidated by opponents, and being “moody” were the most frequently reported physical and psychological symptoms, respectively. Training load, the commonly believed cause of NFOR/OT, had no significant association with NFOR/OT incidence; however competitive level and gender were significant predictors of NFOR/OT, albeit of a small explained variance (~4%). This study demonstrated that NFOR/OT is evident in young athletes and that the associated factors are multifactorial. The 2nd study monitored prospectively, 4 national-level female swimmers during an 11-month competitive season. Two swimmers (16.00 ± 1.41 y) were diagnosed as OT based on performance decrements (mean decrement of 9 %). One of the OT swimmers (OT2) presented with the classical psychophysiological profile, i.e. high monthly training volumes, low IgA concentration, depressed maximal lactates and high self-reported distress. Conversely the other OT swimmer (OT1) only presented with high Training Distress Scale (TDS) scores. These
findings show that both, OT is a complex problem to diagnose and that it’s approach needs to be individualized. The 3rd study investigated the acute psycho-physiological responses to a 6-day training camp in 4 young female swimmers (15.00 ± 1.21 y), of which one was OT and another burnt out (OT1 swimmer from study 2). Both mal-adapted athletes showed performance decrements of ~8 % that lasted for more than 6 months. The OT swimmer, unlike her BO friend, showed a depressed IgA concentration, an unresponsive cortisol, reduced maximal lactate production, and high psychological distress, measured by the TDS. Both swimmers reported slower reaction times on the Stroop test, with the BO swimmer evidencing the worst performance. Finally, the BO swimmer reported very high scores on the Athlete Burnout Questionnaire (ABQ; reduced sense of accomplishment = 4.3; emotional/physical exhaustion = 2.6; sport devaluation = 3.7). This study showed that the psychophysiological profile of an OT swimmer may differ considerably from a BO athlete, with the ABQ being potentially the most efficient tool to diagnose BO. Once more, the individuality of the profiles reinforces the importance of investigating this phenomenon on a case by case basis. The final study used Interpretative Phenomenological Analysis to investigate the psychosocial nature of OT and BO in a 15 year-old female swimmer (OT1 and BO from studies 2 and 3, respectively) and revealed how multiple sources of training and non-training stressors all combined to negatively affect the athlete. The swimmer revealed a past in which she experienced rapid success at an early age and a training mentality of “the more, the better” which was promoted by parents, coaches and herself. Her strong unidimensional identity – centred on swimming – provided few recreational or social opportunities outside the sport. She also reported communication difficulties with her coaches, unwelcome changes in coaching staff, periods of separation from her family, and an over-involved mother. The findings of this thesis suggest that NFOR/OT and BO are issues that many young athletes have to contend with during their sporting careers. The
multifactorial nature of these conditions mean that any screening, prevention or recovery interventions must address the problem from a holistic standpoint and as such, Ken Wilber’s (1998) Integral Model is proposed as a suitable framework through which this condition may be investigated in young athletes.
TABLE OF CONTENTS

ACKNOWLEDGEMENTS 3
ABSTRACT 6
LIST OF FIGURES 18
LIST OF TABLES 21
LIST OF ABBREVIATIONS 22

CHAPTER I: INTRODUCTION 24

1.1. The Overtraining and Burnout problem 24
1.2. Historical perspective on overtraining research 25
1.3. Modern view of overtraining research 26
1.4. Chronic Fatigue Syndrome and its similarities to Overtraining 26
1.5. Overtraining incidence in adults and young athletes 27
1.6. Limitations of overtraining research 28
1.7. Aims and research questions of this PhD 28

CHAPTER II: LITERATURE REVIEW 30

2.1. What is training and overtraining? 30
2.2. Problems with the definition 33

2.2.1. Overtraining and Overtraining Syndrome 34
2.2.2. Staleness 36
2.2.3. Unexplained Underperformance Syndrome 36
2.2.4. Overreaching – Functional and Non-Functional 37
2.2.5. Underrecovery 38
2.8.3. Rates of Perceived Exertion 81

2.8.4. The La/ RPE ratio 82

2.9. Psychological markers for overtraining 83

2.9.1. Psychological instruments used in overtraining research 85
  2.9.1.1. Profile of Mood States 85
  2.9.1.2. Training Distress Scale 88
  2.9.1.3. Athlete Burnout Questionnaire 88
  2.9.1.4. Daily Analysis of Life Demands for Athletes 89

2.9.1.5. Stroop test 90

2.10. Overtraining risk factors 91

2.10.1. Training related 92

2.10.2. The athlete’s psychology and environmental stressors 95

2.11. Overtraining or depression? 99

2.12. What is the prevalence of OT in adults? 100

CHAPTER III: Prevalence of Non-Functional Overreaching/Overtraining in Young Athletes 103

3.1. Introduction 103

3.1.1. Incidence of Non-Functional Overreaching/Overtraining in Young Athletes 103

3.1.2. Signs and symptoms in young athletes 104

3.1.3. Overtraining aetiology 105

3.2. Methods 106

3.2.1. Participants 106

3.2.2. Measures and procedures 106
3.2.1. Statistical Analysis

3.3. Results

3.3.1. Descriptive statistics

3.3.1.1. Sample characteristics

3.3.2. Non-functional overreaching/ overtraining incidence

3.3.3. Incidence of NFOR/ OT at the time of answering the survey

3.3.4. Symptomology/ psychosocial issues reported by the NFOR/ overtrained athletes

3.3.5. Symptomology of the NFOR/ OT athletes in relation to competitive level, gender and sport type

3.3.6. Logistic regression analysis

3.4. Discussion

3.4.1. Incidence rates

3.4.1.1. Incidence rates in Individual vs Team sport-athletes

3.4.1.2. Incidence rates in Low-physically vs High-physically demanding sports

3.4.1.3. Incidence rates in Females vs Male athletes

3.4.1.4. Incidence rates in Sub-national vs National and International athletes

3.4.1.5. Incidence of NFOR/ overtraining at the time of answering the questionnaire

3.4.2. Number of episodes, duration and motivational issues with the NFOR/ OT athletes

3.4.3. Physical symptoms

3.4.4. Psychological symptoms
CHAPTER IV: Physiological and psychological responses of overtrained national-level swimmers during an 11-month competitive season

4.1. Introduction

4.2. Methods

4.2.1. Anthropometric measurements

4.2.2. Training load and performance monitoring

4.2.3. Diagnosis of NFOR and/or OT

4.2.4. Salivary assays

4.2.4.1. Salivary IgA procedures

4.2.4.2. Salivary Cortisol procedures

4.2.5. Incidence of URTIs and mood states monitoring

4.2.6. Swimming protocol

4.2.7. Descriptive statistics

4.3. Results

4.3.1. Performance data

4.3.2. Anthropometric data

4.3.3. Training load data

4.3.4. Biochemical parameters

4.3.5. Mood states (TDS)

4.3.6. Step Test results: 7x 200m

4.4. Discussion
4.4.1. Training load 169
4.4.2. Salivary Immunoglobulin A responses and URTIs 171
4.4.3. Salivary Cortisol responses 173
4.4.4. Mood states responses 174
4.4.5. Maximal performance at the 7 x 200m test 176

4.5. Conclusion 177

CHAPTER V: Physiological and psychological responses to a 6-day swimming training camp in burned-out national-level swimmers 179

5.1. Introduction 179

5.2. Methods 183

5.2.1. Sample recruitment 183
5.2.2. Testing protocol 184
5.2.3. Anthropometric measurements 184
5.2.4. Training load and performance monitoring 185
5.2.5. Salivary assays 185
5.2.6. Incidence of URTIs, mood states monitoring and burnout scores 185
5.2.7. Reaction time task 186
5.2.8. Swimming protocol 186
5.2.9. Competitive performance 186
5.2.10. Heart rate variability measurements 187
5.2.11. Daily training camp data 188
5.2.12. Data analysis 188

5.3. Results 188
5.3.1. Performance data 188

5.3.2. Training load data 190

5.3.3. Biochemical data 191

5.3.3.1. Immunoglobulin A and URTIs 191

5.3.3.2. Salivary cortisol 192

5.3.4. HRV 193

5.3.5. Performance test results 193

5.3.6. Psychological data 196

5.3.6.1. TDS responses 196

5.3.6.2. ABQ scores 197

5.3.7. Reaction time task 200

5.3.8. Six-day training camp daily responses 201

5.4. Discussion 201

5.4.1. Immunoglobulin A and URTI’s 202

5.4.2. Cortisol responses 203

5.4.3. Heart Rate Variability data 209

5.4.4. Maximal performance data 210

5.4.5. Mood state responses 210

5.4.6. Burnout scores 211

5.4.7. Reaction time responses 213

5.4.8. Daily questionnaires data 214

5.5. Conclusions 214

CHAPTER VI: Literature Review – Qualitative part 216

6.1. Scientific methods – Introducing Qualitative Research 216
6.2. Qualitative research methods 218

6.3. Validity issues in qualitative research 219

6.3.1. Reality 221

6.3.2. Relationship of the researcher to the participant 222

6.3.3. Generalisability 222

6.3.4. Causality 222

6.3.5. Reflexivity 223

6.3.6. Member checking 223

6.3.7. Data triangulation 224

6.4. Case-study design 225

6.4.1. Case study characteristics 225

6.4.2. Types of design for case study research 227

6.5. Interpretive Phenomenological Analysis 229

CHAPTER VII: A case-study of a young burned out female swimmer 232

7.1. Introduction 232

7.2. Methods 236

7.2.1. Participant 236

7.2.2. Quantitative data – Athlete Burnout Questionnaire 237

7.2.3. Qualitative data 237

7.2.3.1. Main researcher background 237

7.2.3.2. Interview 238

7.2.3.3. Data analysis 238

7.3. Results 239

7.3.1. Athlete Burnout Questionnaire 239