School of Physical Education and Sports Science
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Common paths or a personal matter?
Understanding Athlete Burnout Syndrome through a longitudinal mixed methods design

CIVIS SPORT PRESENTATION
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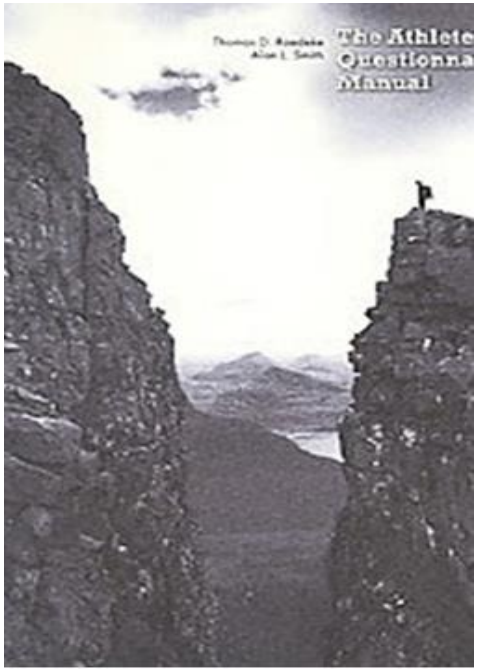


*The biggest thing, though, was lack of energy and lack of motivation, you know. **I couldn't get myself to, you know, give 100%.** Physically I wouldn't fee! that tired, but I guess mentally and emotionally I'd feel really drained*

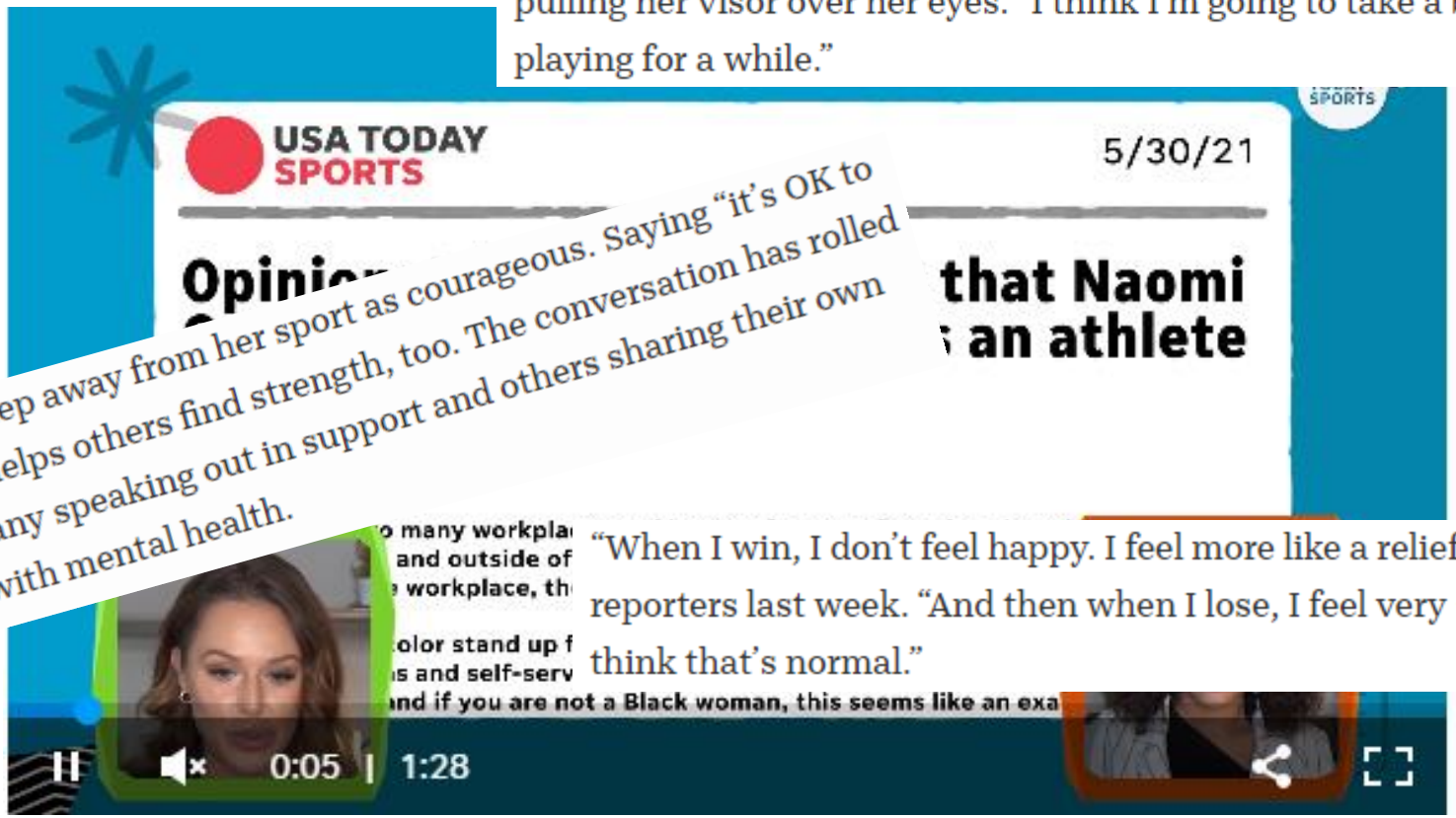
(Gould et. al., 1996)

*Adults need to pay attention. It's a problem in youth sports. These kids are burned out. From 12 to 18, I bet Elena can count on her hands the amount of weekends she didn't have anything to do related to sport. She's **missed the opportunity to be a kid**."*

(Jeré Longman talking about Elena Delle Donne)

Naomi Osaka's decision to step away from tennis shines light on athlete burnout

For a few minutes, she stumbled and choked up. “I’m kind of at this point where I’m trying to figure out what I want to do, and I honestly don’t know when I’m going to play my next tennis match,” she said, pulling her visor over her eyes. “I think I’m going to take a break from playing for a while.”



decision to step away from her sport as courageous. Saying “it’s OK to not be OK” helps others find strength, too. The conversation has rolled on, with many speaking out in support and others sharing their own struggles with mental health.

“When I win, I don’t feel happy. I feel more like a relief,” she told reporters last week. “And then when I lose, I feel very sad, and I don’t think that’s normal.”

“Athletes are human, and they have emotions just like the general population — and just like many professionals, burnout of their careers,” said Pete Economou, a Rutgers University associate professor and program director with the department of applied psychology

What is athlete burnout?

Athlete burnout is generally defined as a cognitive-affective syndrome comprised of emotional and physical exhaustion, a reduced sense of accomplishment, and sport devaluation (Raedeke & Smith, 2001)

How to recognize athlete with burnout signs?

Tiredness, sickness and lethargy
Diminished performance, decreased sense of success, staleness
Doubts, low perceived benefits, lack of enthusiasm, lack of effort to improve

(Cresswell & Eklund, 2006; Gustafsson et al., 2011)

How athletes described burnout experience?

"I would say that I was worse than I used to be,... I don't know how to say it... then I used to say that I am very tired, I can't, I can't take it anymore, but every year I saw that there is more fatigue... now I see that there are limits to fatigue after all… I broke them, I broke them now that I had to stop and that's why I stopped, because I had reached the "amen" where I wasn't performing at all in training... nothing... I was like "muscle burn". I mean, the times I used to do so long ago were no more... "burning muscles" everywhere... and the mind of course... let go, a lot of stress, a lot of sadness! (Paraskevi)"

Ok I never recovered in the end, I didn't have enough time, yes because the body when you get overworked what I understood is that it goes into shock and drops all its functions. So my body didn't recover. That is, in order to get back to the level I was at, I had to rest for two months, get back into training to get back to that level, I didn't make it within a month. It happens, when we say blackout, I started to feel dizzy, I was out of training I was dizzy, and in the end it was that I wasn't eating very well, I had blood tests and my cholesterol, triglycerides were very low, because I didn't have time to eat (Spyros)

Athlete burnout: an integrated model and future research directions (Gustaffsson, Kenntta, &Hassmenn, 2011).

(Previous work that guided present Phd research)

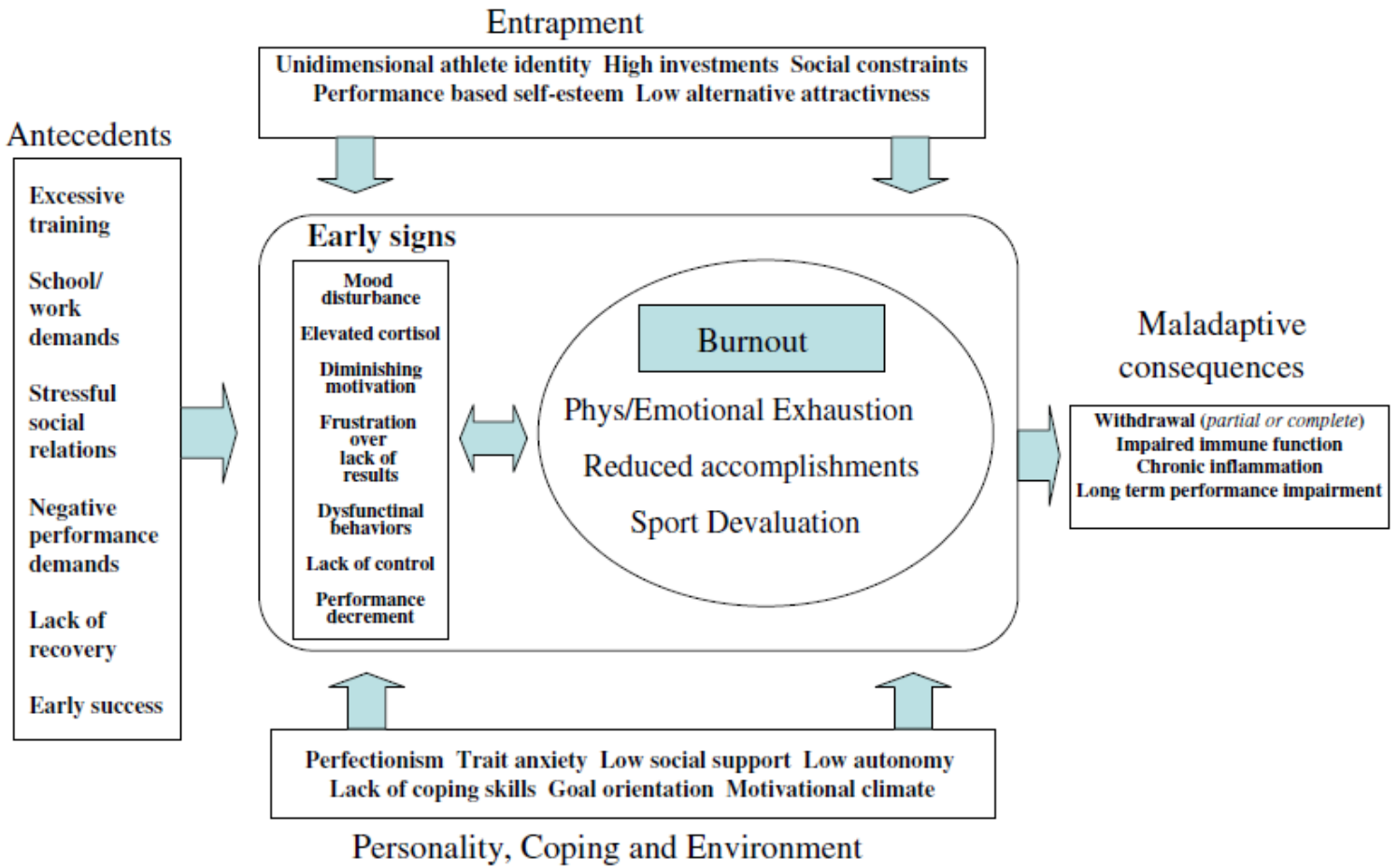


Figure 1. An integrated model of athlete burnout including major antecedents, early signs, entrapment, vulnerability factors (e.g., personality, coping and environment), key dimensions and maladapative consequences (e.g., withdrawal, long term performance impairment).

(Previous work that guided present Phd research)

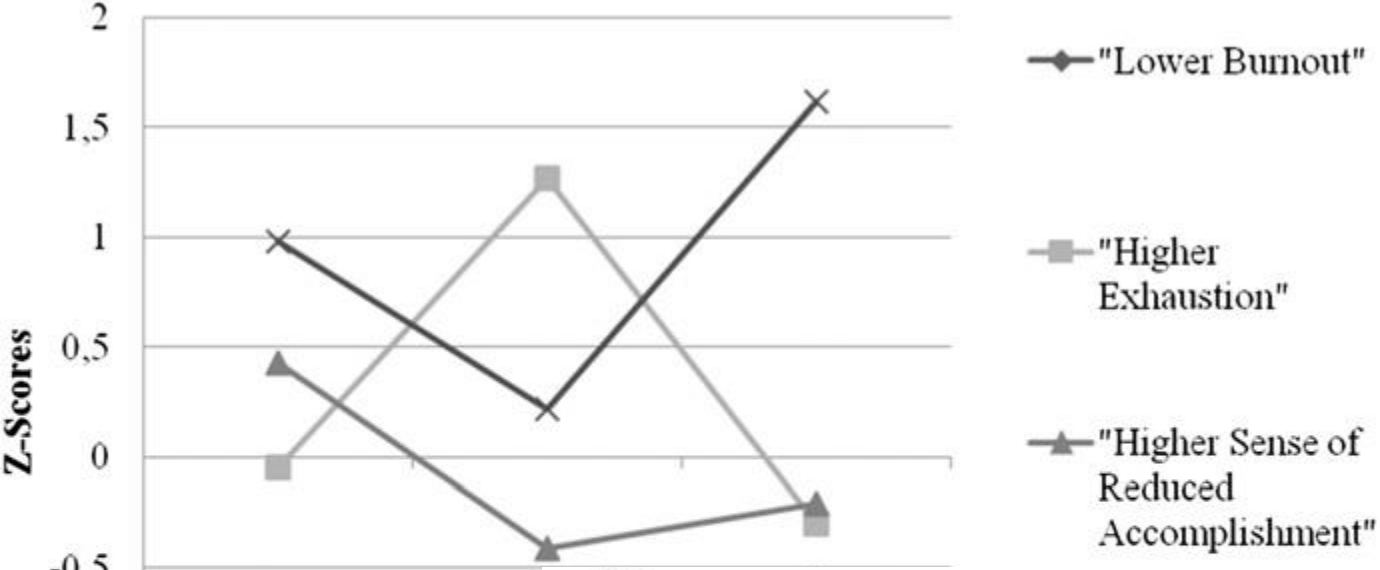
Table 2
Means, z scores, and standard deviations for cluster groups on commitment variables

	Cluster 1 attracted ($n=37$)			Cluster 2 entrapped ($n=13$)			Cluster 3 vulnerable ($n=11$)			Cluster 4 uninterested ($n=2$)		
	M	*z*	*SD*	*M*	*z*	*SD*	*M*	*z*	*SD*	*M*	*z*	*SD*
Enjoyment	4.54	.50	.45	3.56	−.66	.52	3.91	−.25	.72	1.17	−3.51	.24
Benefits	4.40	.51	.41	3.69	−.62	.50	3.73	−.56	.63	2.63	−2.31	.53
Costs	2.74	−.44	.60	3.98	1.06	.72	3.02	−.10	.55	4.63	1.84	.53
Attractive alternatives	1.67	−.61	.47	3.25	.97	.60	2.76	.48	.93	4.70	2.43	.42
Investments	4.94	.41	.12	4.97	.52	.08	4.27	−1.80	.27	4.50	−1.04	.14

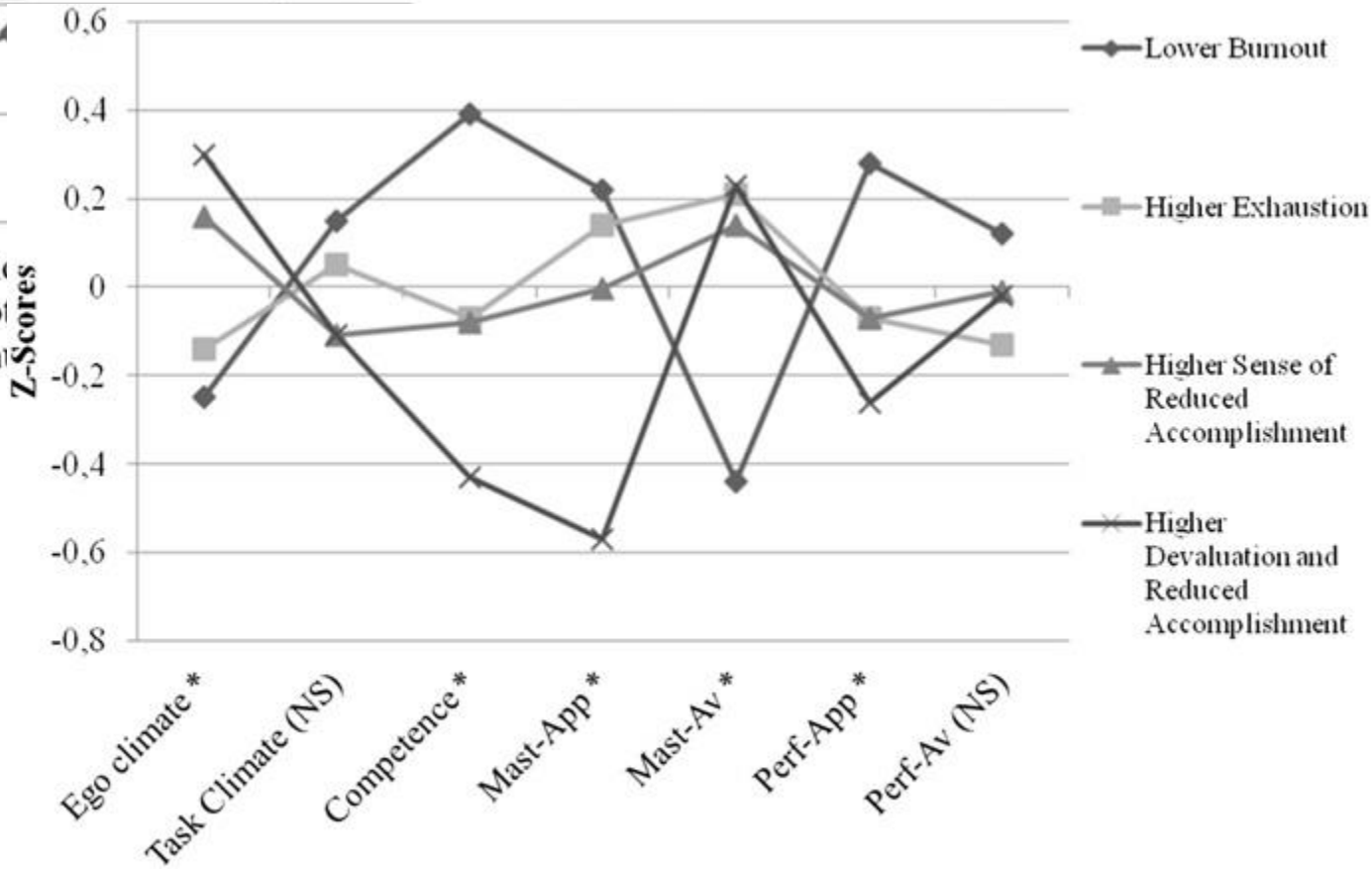
Table 3
Means and standard deviations for cluster groups on social influence variables

	Cluster 1 attracted ($n=37$)		Cluster 2 entrapped ($n=13$)		Cluster 3 vulnerable ($n=11$)	
	M	*SD*	*M*	*SD*	*M*	*SD*
Parent social support	3.70	0.37	3.35	0.61	3.44	0.44
Coach social support	3.45	0.47	2.89	0.49	3.30	0.35
Teammate social support	3.19	0.46	3.03	0.52	3.14	0.57
Close friend social support	3.72	0.49	3.59	0.60	3.80	0.27
Parent social constraints	2.42	0.91	2.85	1.06	2.76	1.29
Coach social constraints	2.68	0.75	3.22	1.00	2.69	0.90
Teammate social constraints	2.12	0.68	2.74	0.85	2.11	0.46

Weiss, W., & Weiss, M. (2006). A longitudinal analysis of sport commitment among competitive female gymnasts. Psychology of Sport and Exercise, 7, 309-323



(Gauther et al., 2013)



(Previous work that guided present Phd research)

(Previous work that guided present Phd research)

TABLE II
Matrix with the Main Common and Individual Themes from the Interviews.

Themes	Lisa	Steve	Sara
Common themes	Early success	Early success	Early success
	Strong athletic identity	Strong athletic identity	Strong athletic identity
	Rapid athletic development	Rapid athletic development	Rapid athletic development
	Lack of recovery	Lack of recovery	Lack of recovery
	Performance based self-esteem	Performance based self-esteem	Performance based self-esteem
	High initial motivation	High initial motivation	High initial motivation
	Internal pressure/ drive to train	Internal pressure/ drive to train	Internal pressure/ drive to train
	Lack of enjoyment	Lack of enjoyment	Lack of enjoyment
	Frequent competitions/ travels	Frequent competitions/ travels	Frequent competitions/ travels
	Early signs of training maladaptation ignored	Early signs of training maladaptation ignored	Early signs of training maladaptation ignored
	Depressed mood	Depressed mood	Depressed mood
	Decreased performance	Decreased performance	Decreased performance
Individual themes	Social constraints	High goals	Psychosocial stress
	Overtraining syndrome recognized	Overtraining syndrome recognized	Overtraining syndrome unnoticed
	Long term development	Short term development	Long term development
	Perceived external pressure	Internal pressure	Perceived external pressure
	High demands in school	Injury	High demands in school
	Feeling obliged to train	Anxiety	Anxiety
	Wanting to please others		Lack of control
	Lack of life balance		Repressed person
			Media pressure
			Bulimia

Gustafsson, H., Kenttä, G., Hassmén, P., Lundqvist, C., & Durand-Bush, N. (2007a). The process of burnout: A multiple case study of three endurance athletes. International Journal of Sport Psychology, 38, 388-416.

(Previous work that guided present Phd research)

Code	Subcategory	Category	Theme
Lack of results Fighting a losing battle Training hard but saw no results	Lack of accomplishment	Lack of accomplishment	Symptoms and consequences
Constantly tired Feeling exhausted Slept a great deal	Physical Exhaustion	Exhaustion	
Lack of energy Emotional exhaustion	Emotional Exhaustion		
Aversion to training Negative attitude towards sport Other things became important	Devaluation of sport participation	Devaluation of sport participation	
No enjoyment in sport Lack of motivation	Motivational loss	Motivational manifestations	
Doing sport to please others Changing motives for training Change in motivation	Motivational change		
Eating disorders Doing other things than training Cheating in training Exaggerating physical symptoms Withdrawal from sport	Behavioural coping	Coping	
No coping Suppressing feelings Denial	Emotional coping		
Feeling down Mood swings Depressed Frustration Irritated	Affective manifestations	Cognitive/affective manifestations	
Low self-esteem Confused feelings Anxiety Personality change Guilt feelings about not training	Cognitive manifestations		

Fig. 1. Hierarchical structure of the theme "Symptoms and consequences of burnout."

Gustafsson, H., Hassmen, P., Kentta, G., & Johansson, M. (2008). A qualitative analysis of burnout in elite Swedish athletes. *Psychology of Sport and Exercise, 9*, 800–816

(Previous work that guided present Phd research)

Athlete-burnout correlates	# of studies
Motivation	7
Amotivation	7
Intrinsic motivation	5
Extrinsic motivation	5
Perceived control	3
Enjoyment	4
Coping	6
Anxiety	6
Perceived stress	9
Recovery	3
Mood disturbance	4
Social support	5
Parent influence	5
Coach behavior	7
Identity	3
Training load	3

Goodger, K., Trish, G., Lavallee, D., & Harwood, C. (2007). Burnout in sport: A systematic review. *The Sport Psychologist, 21*, 127-151.

(Previous work that guided present Phd research)

Table 1
Top-11 most cited articles in citation network analysis.

Rank	ID	Citations	Citations per year	Author (s)	Year	Journal	Coach vs. Athlete	Male vs. Female	Individual vs. Team	Original vs. Review
1	93	73	2.92	Smith	1986	Journal of Sport Psychology	Athletes	NA	NA	Review
2	86	52	5.20	Raedeke & Smith	2001	Journal of Sport & Exercise Psychology	Athletes	Both	Individual	Original
3	39	51	3.40	Gould, Udry, Tuffey & Loehr	1996	The Sport Psychologist	Athletes	Both	Individual	Original
4	82	48	3.42	Raedeke	1997	Journal of Sport & Exercise Psychology	Athletes	Both	Individual	Original
5	11	42	2.21	Coakley	1992	Sociology of Sport Journal	Athletes	NA	Both	Original
6	38	39	2.60	Gould, Tuffey, Udry & Loehr	1996	The Sport Psychologist	Athletes	Both	Individual	Original
7	6	32	1.19	Caccese & Mayerberg	1984	Journal of Sport Psychology	Coaches	Both	NA	Original
8	17	29	4.83	Cresswell & Eklund	2005	Medicine & Science in Sports & Exercise	Athletes	Male	Team	Original
9	87	27	3.86	Raedeke & Smith	2004	Journal of Sport & Exercise Psychology	Athletes	Both	Individual	Original
T-10	99	25	1.32	Vealey, Udry, Zimmerman & Soliday	1992	Journal of Sport & Exercise Psychology	Coaches	Both	Both	Original
T-10	72	25	5.00	Lemyre, Treasure & Roberts	2006	Journal of Sport & Exercise Psychology	Athletes	Both	Individual	Original

(Previous work that guided present Phd research)

General Dimension of Stressor	Organizational Stressor
Training and competition load	Hard training
	Insufficient rest/amount of training
Training and competition environment	Insufficient training facilities
	Content of the training
Travel arrangements	Travel time long
Nutritional issues	Disordered eating
Injury	Training with injury
	Pressure due to injury
Leadership style	Authoritarian coaching style
	Relationship with coaches
	Coaches having insufficient knowledge
	Pressure from coaches
	Conflicting information from coaches
Interpersonal demands	Relationship with teammates
	Poor group cohesion
	Conflicts within the club
	Lack of belonging to the team
Athletic career and performance development issues	Position insecurity
	Perceived unfairness in the selection
Organizational structure and climate of the sport	Lack of communication between coaches and players
	Clique formation
Roles in the sport organization	Playing in different positions
	Being team captain
Total	

Note: Eng = English participants, Ja = Japanese participants.

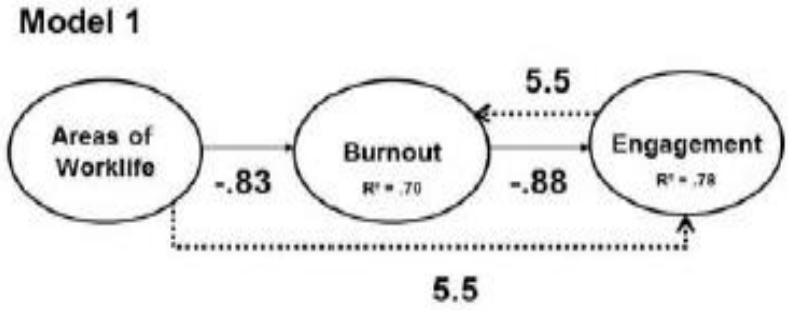
Tabei, Y., Fletcher, D., & Goodger, K. (2012). The relationship between organizational stressors and athletes burnout in soccer players. *Journal of Clinical Sport Psychology, 6, 146-165.*

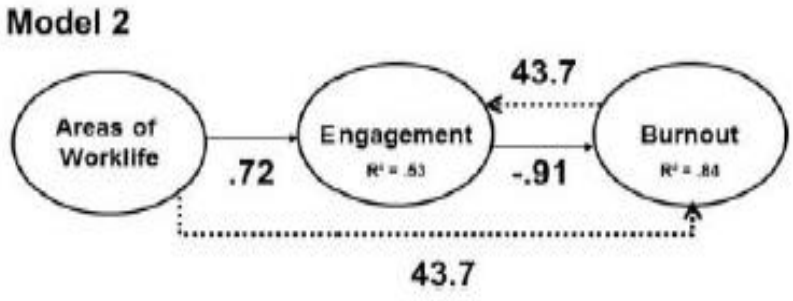
(Previous work that guided present Phd research)

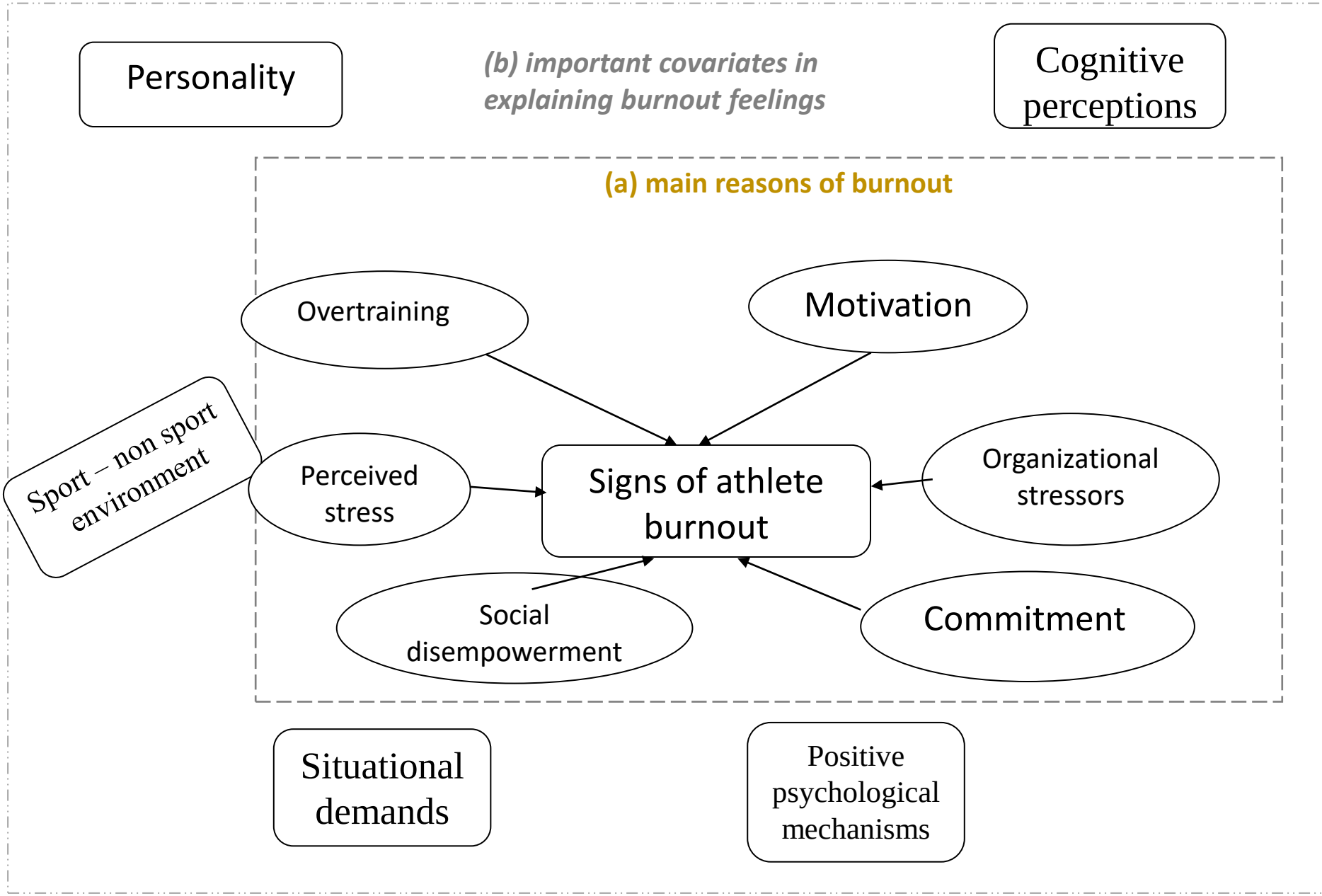
MICHAEL P. LEITER AND CHRISTINA MASLACH

Fig. 5. Causal Model Coefficients: Normative Sample.

The Job-Person Fit Model of Burnout







Markati, Alexandra; Karteroliotis, Konstantinos, Issari, Philia, & Psychountaki, Maria (in press). Reasons leading to athlete burnout: A systematic review

The proposed **Multi Phase Mixed-Methods Design** attempts to explore possible emerging profiles of the **five main reasons** that lead athletes to feelings of burnout and to investigate whether these athletes emerge **"common paths"** to burnout or experience the syndrome as a **"personal matter"**.

*… emerges and further explores **burnout profiles***

…understands its multidimensional and complicated nature

…identifies commonalities and differences among profiles

…emerges 11 unique "paths" of burnout athletes

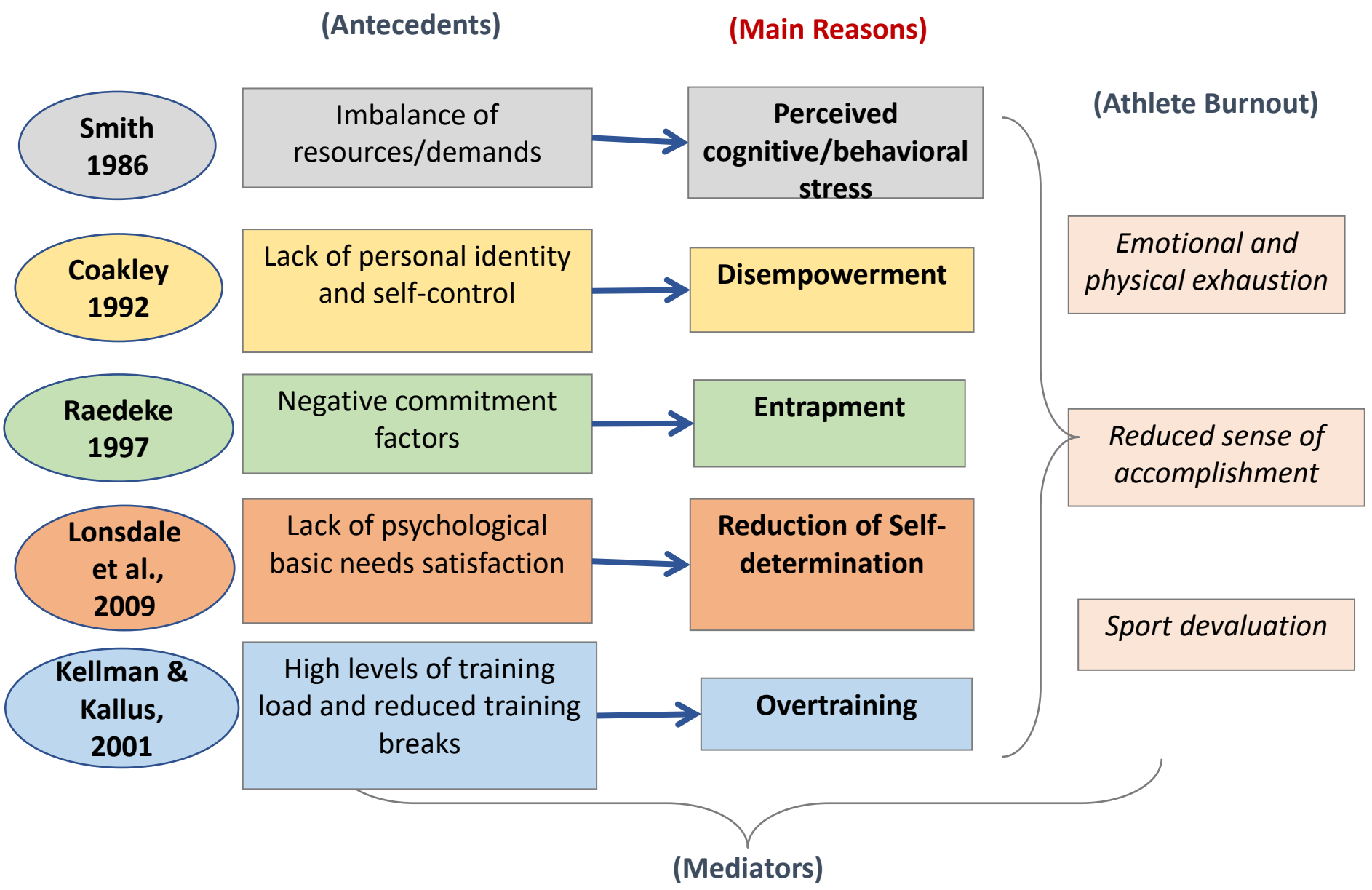
…identifies a critical "hub" stage of transition of burnout

…offers a theoretical model for further exploration

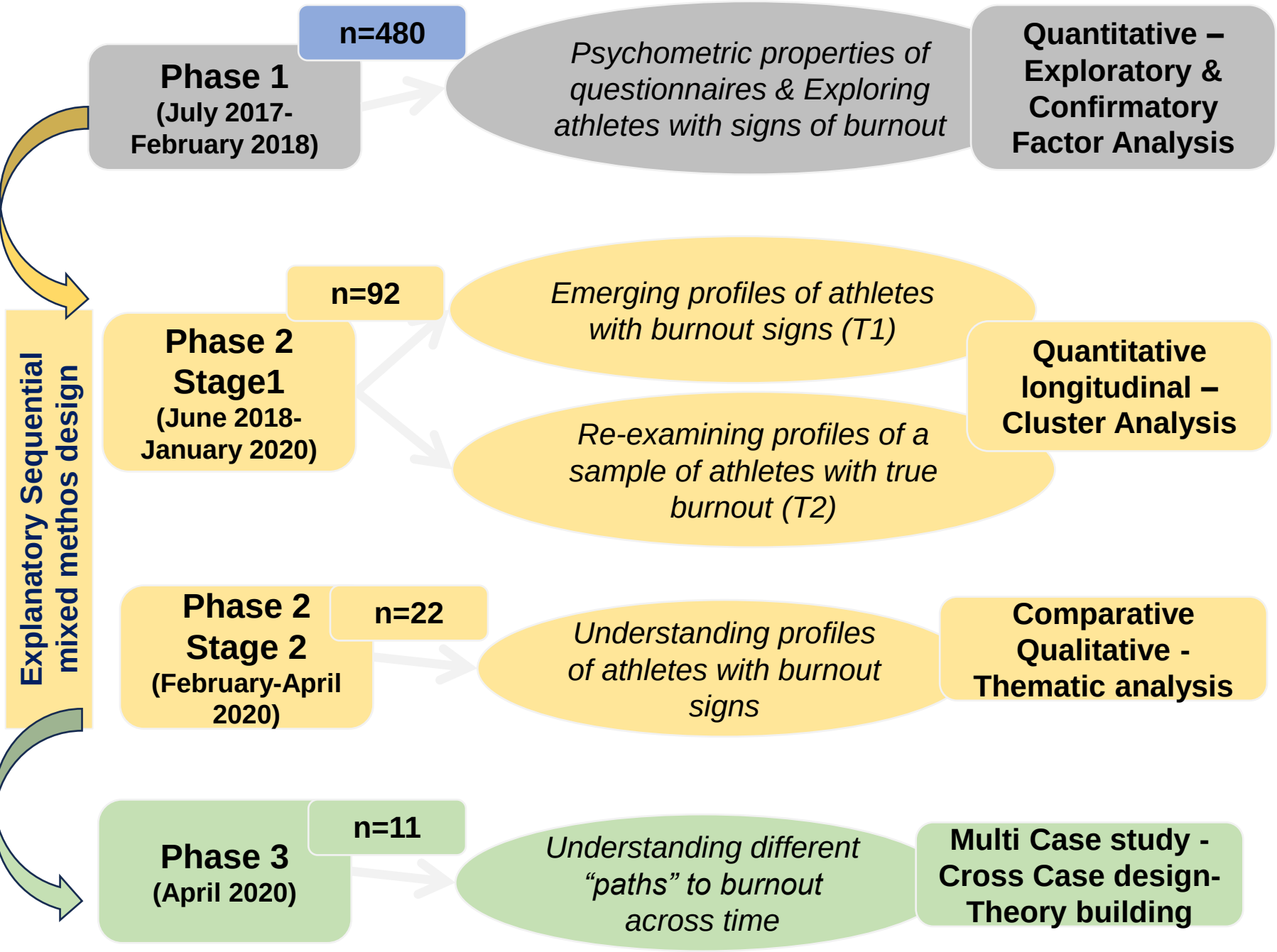
…offers a practical instrument for identification and prevention

… value of mixed methods

5 traditional models explaining of athlete burnout



Proposed pedagogical model guiding present Phd study – unpublished work (Markati A.)



Proposed research design guiding present Phd study – unpublished work (Markati A.)

Table 1 Descriptive Data for the Athlete Burnout Questionnaire: Previous Research and the Present Study

	Athlete Burnout Questionnaire Subscales					
	PEE		DV		RA	
	M	*SD*	*M*	*SD*	*M*	*SD*
Previous Research						
Raedeke and Smith (2001; N = 208)	2.62	0.86	2.02	0.88	2.37	0.76
Cresswell and Eklund (2004; N = 199)	2.32	0.72	2.16	0.76	2.43	0.68
Cresswell and Eklund (2005a; N = 102)						
Pre	2.39	0.57	1.65	0.53	2.04	0.44
Mid	2.36	0.63	1.82	0.67	2.23	0.52
End	2.43	0.58	1.90	0.67	2.50	1.17
Black and Smith (2007; N = 182)	2.92	0.89	1.99	0.90	2.29	0.81
Hill, Hall, Appleton and Kozub (2008; N = 151)	2.28	0.81	1.86	0.92	2.35	0.69
Perreault, Gaudreau, Lapointe and Lacroix (2007; N = 259)	2.16	0.75	1.62	0.69	1.92	0.59
Cresswell (2008; N = 183)						
T1	2.82	0.71	1.90	0.70	2.38	0.59
T2	2.82	0.69	2.01	0.69	2.40	0.61
Hodge, Lonsdale and Ng (2008; N = 133)	2.76	0.63	2.00	0.70	2.35	0.57
Appleton, Hall and Hill (2009; N = 201)	2.25	0.81	1.66	0.77	2.10	0.67
Lonsdale, Hodge and Rose (2009; N = 201)	2.47	0.84	2.37	0.68	2.30	0.73

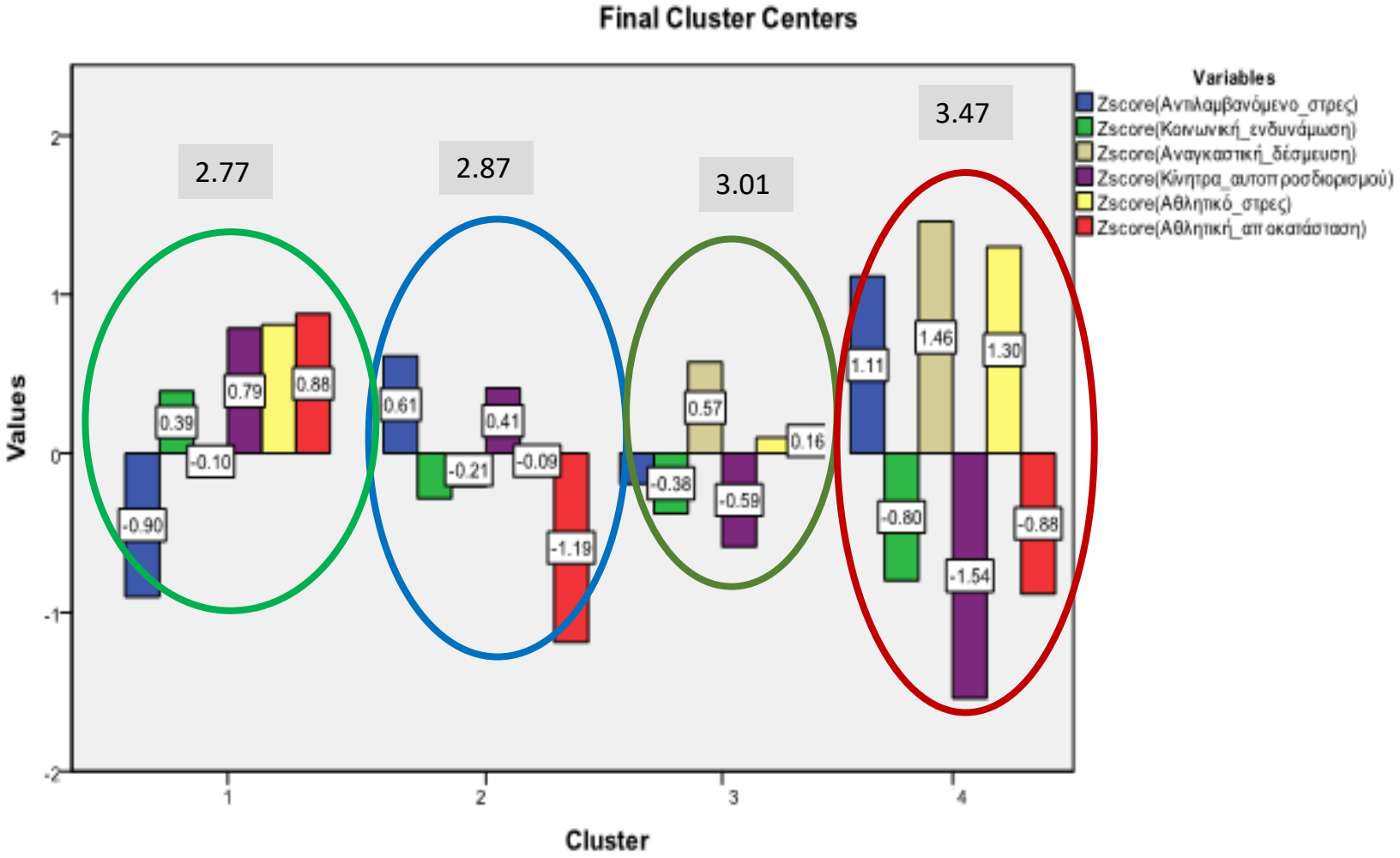
ABPs T1

ABP1 T1: Sport-specific **stress** & psychophysical coping mechanisms (11)

ABP2 T1: Cognitive-emotional **stress** & very low sport specific **recovery** (19)

ABP3 T1: High constrained **commitment &** low self-determined **motives (25)**

ABP4 T1: Combination of all main reasons (17)



Phase 2 – stage 1 (T1): Quantiative Longitudinal Research (unpublished Phd work (Markati A.)

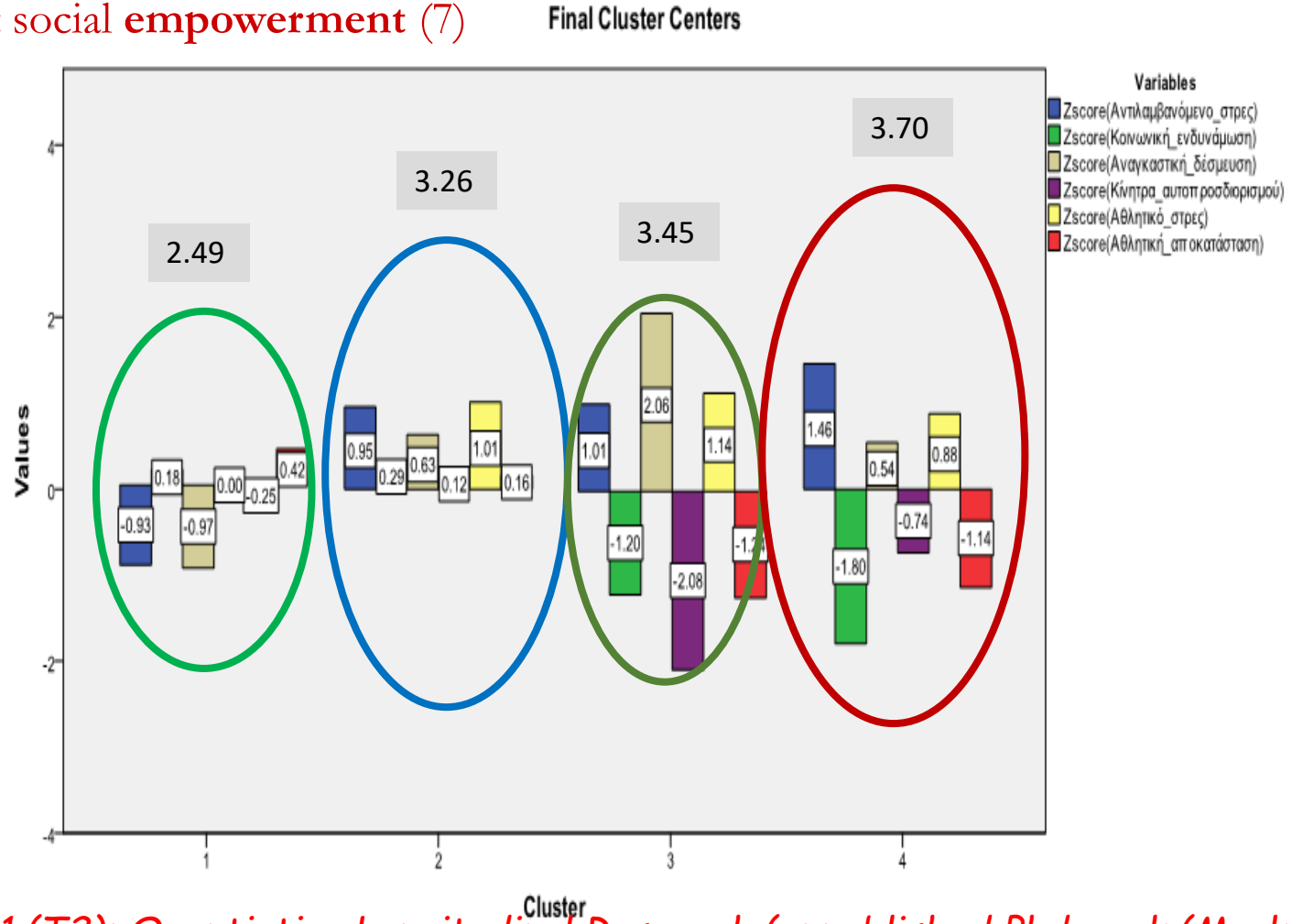
ABPs T2 (2 - 3 years later)

ABP1 T2: Low Cognitive-emotional **stress** & constrained **commitment** (4)

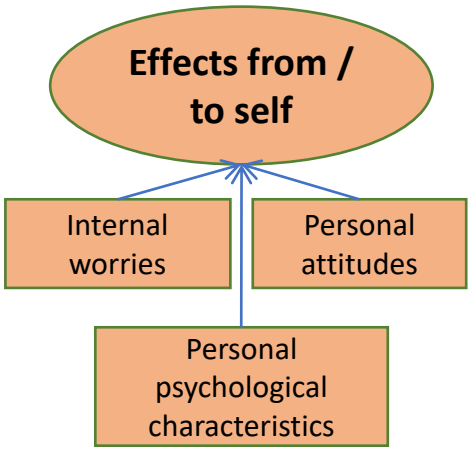
ABP2 T2: Overall **stress** & constrained **commitment** (10)

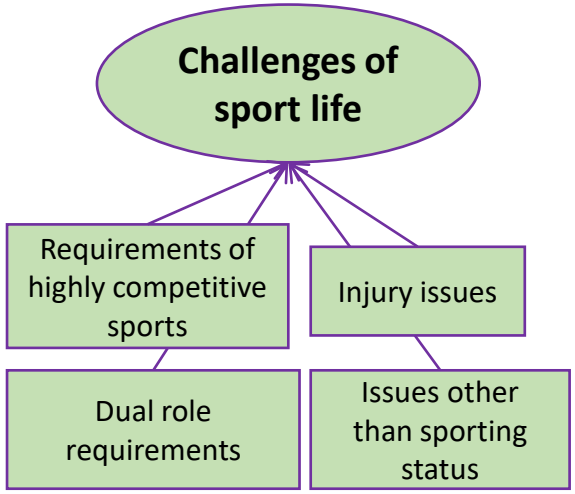
ABP3 T2: Combination of all main reasons with the highest **obligation** & **overtraining** (7)

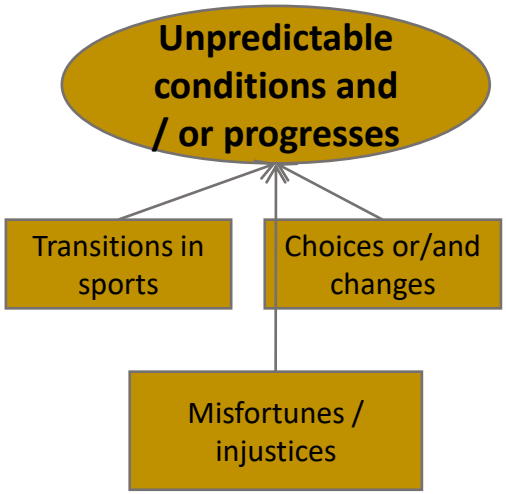
AB4 T2: Combination of all main reasons with the highest Cognitive-emotional **stress** & the lowest social **empowerment** (7)



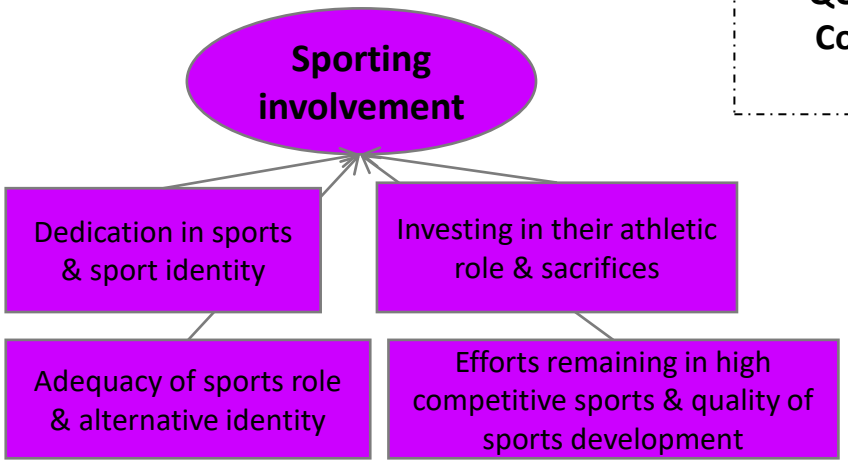
Phase 2 – stage 1 (T2): Quantiative Longitudinal Research (unpublished Phd work (Markati A.)

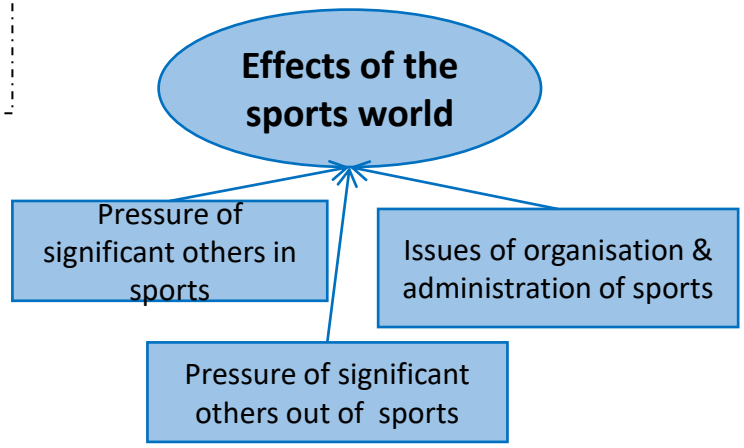




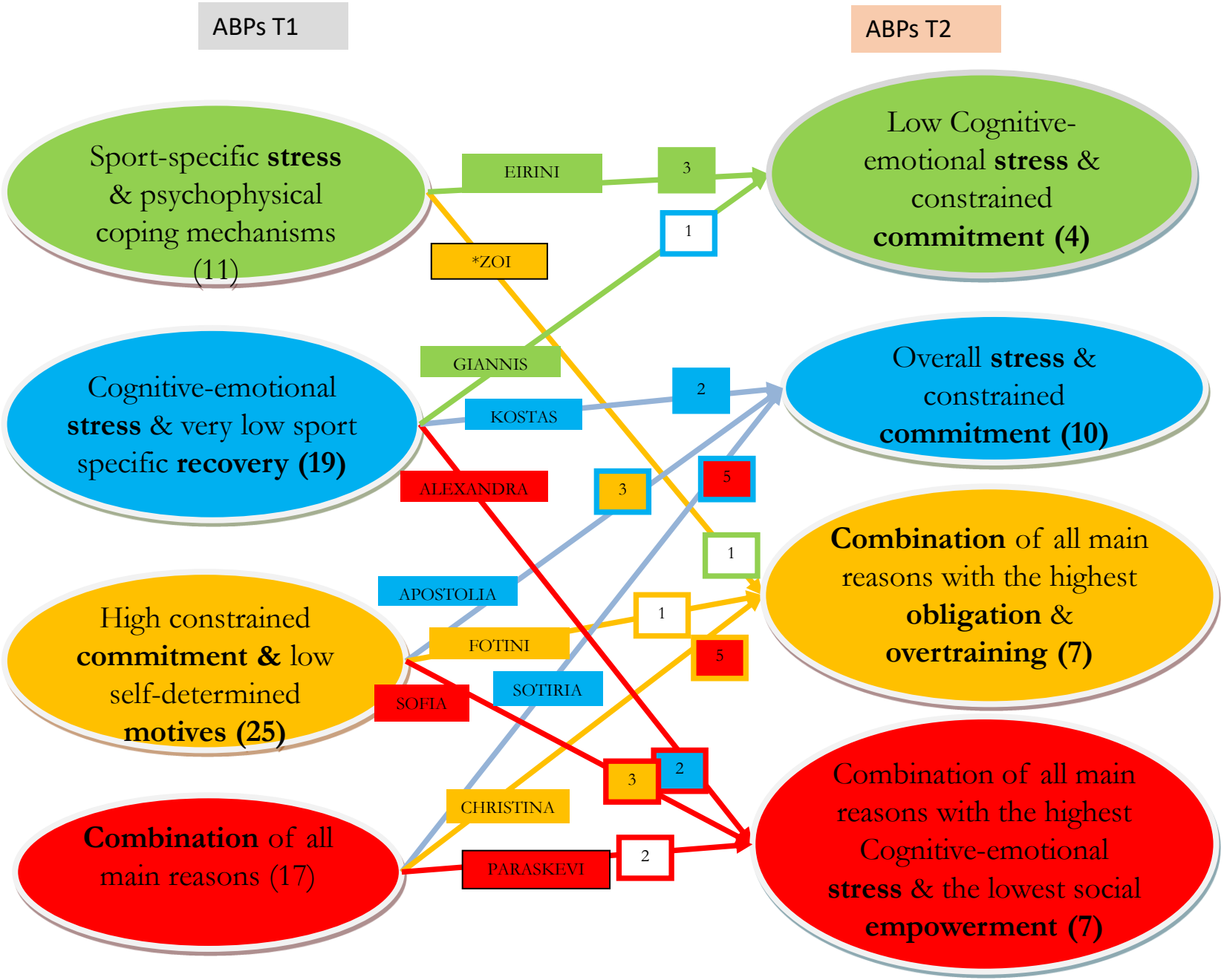


QUALITATIVE: Comparative Analysis





Phase 2 – stage 2: Qualitative Comparative Research (unpublished Phd work (Markati A.)



Phase 3: Multiple Case Study - unpublished Phd work (Markati A.)

Suggestions and examples for preventing and dealing with sports burnout (for sports psychologists)

- **Positive Psychology & CBT**

- **Intervention strategies that take into account:**

❑the theoretical background of the causes of burnout

❑simultaneous examination of individual and organizational parameters

❑chronic nature of the syndrome and the need for preventive interventions

- **Proposed Tool "*Profile of Identification Practices and Management Solutions (PIPMS)*" (Markati, Psychountaki, Issari & Karteroliotis, in press)**

- **Evidence-based intervention approach**

❖ *Evaluate*

❖ *Choose*

❖ *Plan design*

❖ *Evaluate effectiveness*

Future considerations

- The value of a ***socio-ecological*** orientation when recognizing the syndrome and its evolution – early recognition of AB stage and transformation
- The need to **prevent athletes from** dangerous and chronic factors and from signs of obligation
- The importance of **sports devaluation** as a critical feature of the syndrome
- Need to **identify** similarities and differences between athletes who belong to the same ABP T1 but follow different "paths" of ABP's development in T2
- The need to **protect athletes** from burning out through a harmonious relationship with their athletic identity and the value of cultivating principles of a healthy sports environment to those involved in sports (coaches, parents, etc.)

Suggestions and examples for preventing and dealing with sports burnout (to coaches/athletes)

Need to understand different aspects of burnout

Not everyone quits!

Athletes (with the same coach) may show different burnout profiles and need different treatment

There is a chance that a previously exhausted athlete will return to their athletic identity

Special attention to athletes with dual identity (athlete-student)

Value of general awareness of the signs of burnout

Training / attending special seminars ...such as training-recovery periodicity, stress management, motivational development, balanced life principles

Encouraging the use of psychological skills in various settings

Partnerships

INDICATIVE ARTICLES / PRESENTATIONS

Markati A, Psychountaki M, Karteroliotis K, Apostolidis N, Raedeke TD (2023) Psychometric Properties of a Greek Version of Athlete Burnout Questionnaire. Sports Injr Med 7: 194.
DOI: https://doi.org/10.29011/2576-9596.100194

Markati, A., Psychountaki, M., Kingston, K., Karteroliotis, K., & Apostolidis, N. (2018). Psychological and situational determinants of burnout in adolescent athletes. International Journal of Sport and Exercise Psychology, 1-16. doi: 10.1080/1612197X.2017.1421680

Markati, A., Psychountaki, M., Karteroliotis, K., (2018). Recognizing and understanding sports burnout: A literature review. Sports Psychology (2013)

Athlete Burnout: Differences Across Sex, Age, And Other Sport Characteristics. *Book of Abstracts of the 13th FEPSAC European Congress of Sport Psychology* (Madeira, Portugal)

Common paths or a personal matter. Examining athlete burnout. ECQI - 2020 - Qualitative Research Congress – (Malta)

Evaluating the associations between coaches' autonomy supportive behaviors, the quality of athlete-coach relationship and athlete burnout under a self-determination perspective. ISSP 2017 (Sevilla, Spain)

Integrating significant antecedents to understand commonalities and differences of athlete burnout experience. FEPSAC 2019 - 15th European Congress Sport Psychology - (Munster, Germany)

Introduction to the program "I PLAY (cause) I FEEL" addressed to sport psychology practitioners in youth sports FEPSAC 2019 - 15th European Congress Sport Psychology (Munster, Germany)

Understanding athlete burnout syndrome through a longitudinal mixed methods design. ECQI- 2019 - qualitative research congress – (Endinburg, Scotland)

Athlete burnout: A multidimensional approach on predicting burnout under a conceptual integrated perspective. ISSP 2017 (Sevilla, Spain)

Athlete Burnout: Differences Across Sex, Age, And Other Sport Characteristics. Book of Abstracts of the 13th FEPSAC European Congress of Sport Psychology. (Madeira, Portugal)

Athlete Burnout Questionnaire: Validity and reliability in a Greek population. IV European Congress of Methodology, (Berlin) (2010).

Athlete Burnout Questionnaire: Examination of the initial psychometric properties in Greek population». 10th National Congress of Sport Psychology (Athens) (2009)

Thank you!!!!

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- https://www.researchgate.net/profile/Alex-Markati
- www.mikroiathlites.gr