

Human adaptation to stress in sport contexts: implications for intervention and research



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INTRODUCTION

Sports is a well-known potentially triggering environment for athletes' stress. However, much less is known about how the process of adaptation to stress takes place and how different factors involved in this adaptation interact and influence each other.

Based on the Cognitive, Motivational and Relational Theory (Lazarus, 1991; 1999) and on the Interactive Model of Human Adaptation to Stress (Gomes, 2014; see Figure 1), this study aims to discuss the integration of cognitive appraisal, coping, emotions, and human functioning in stress situations into a single framework.

Currently, the major challenge of comprehending human adaptation to stress is how to integrate in one study all factors involved.

Therefore, we propose one quantitative (Adaptation to Stress Questionnaire; ASQ) and one qualitative approach (Interview Guide of Adaptation to Stress; IGAS) to analyse the process of human adaptation to stress in sports.

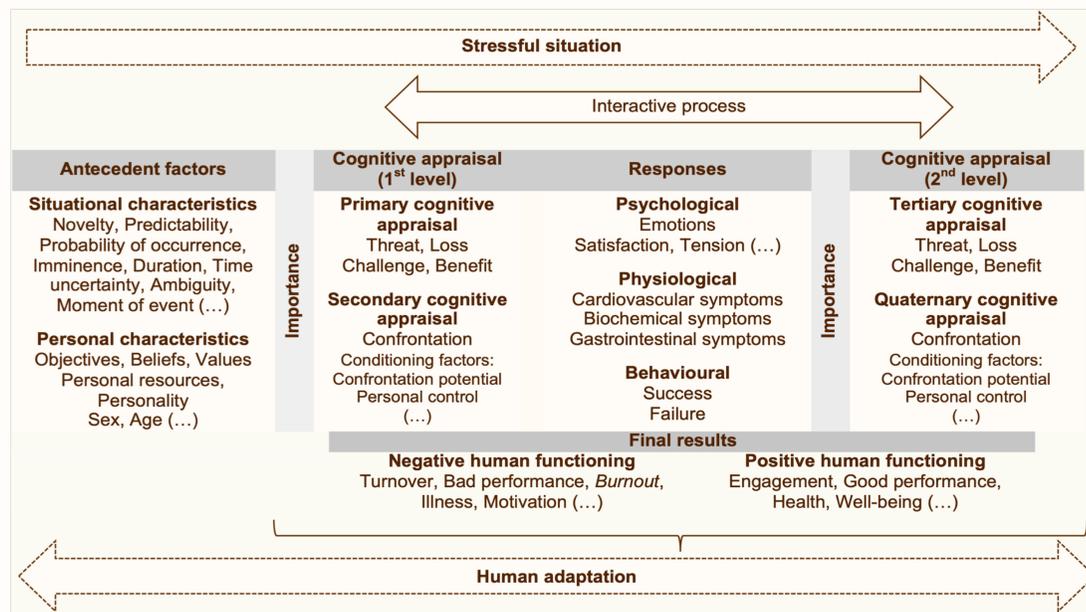


Figure 1. Interactive Model of Adaptation to Stress (Gomes, 2014)

INSTRUMENTS

Model – Areas of evaluation	Adaptation to Stress Evaluation Interview Example of questions	Adaptation to Stress Evaluation Questionnaire Example of questions
1. Stressful event	"From all the stress sources we've been discussing, would it be possible for you to choose the one that caused the most pressure and stress?"	"Generally speaking, this stressful event was... 0 = not stressful; 4 = highly stressful"
2. Antecedent factors	"How long did the stressful situation last for?"	"Where you expecting this stressful event? Yes / No"
3. Personal characteristics	Evaluated with specific measures	Evaluated with specific measures
4. Primary cognitive appraisal	"When you faced the situation, what did you think? What did you try to do?"	"For me, this stressful event was... 0 = Not at all important; 4 = Highly important"
5. Secondary cognitive appraisal	"To what extent what you tried to do at the time to deal with the stressful situation was effective or produced the result you were expecting? If yes, how was it effective?"	What I did to deal with the stress situation was ... 0 = Not effective; 4 = Very effective
6. Responses	"How did you feel, psychologically and emotionally? Can you give me examples?"	"From a psychological point of view, the stressful event... 0 = made me feel terrible; 4 = made me feel very good"
7. Final adaptation to stress	"At the end of the stressful situation, how satisfied were you?"	"By the end, the stressful event... 0 = Decreased my sport performance; 4 = Facilitated my sport performance"

CONCLUSION

The Interactive Model of Adaptation to Stress (Gomes, 2014) is therefore a theoretical model that can be used to evaluate and intervene in human adaptation to stress.

The model integrates the factors that explain adaptation to stress, highlighting their interaction. The adaptation can be evaluated using an interview or a questionnaire, thereby making it possible to study the phenomenon using both quantitative and qualitative methods. This makes it suitable for different types of research and usable in different sports contexts.

IMPLICATIONS FOR RESEARCH AND INTERVENTION

Research

- Evaluates the transactional and interactive nature of adaption to stress.
- Evaluates the role of cognitive appraisal in the relationship between the stressful situation and the final adaptation result.
- Evaluates the moderating role of situational and personal variables in the relation between the stressful situation and the final adaptation result.
- Both instruments can be used in longitudinal studies in order to analyse human adaptation over time.

Intervention

- Captures specific sources of stress for each athlete.
- Evaluates how each athlete evaluate the sources of stress.
- Evaluates how each athlete cope and adjust to stress.
- Evaluates specific reactions of adaptation to stress.
- Allows to define individualized plans of intervention to athletes.

FUNDING