# Flipturns of Adolescent Swimmers Psychological (in)Flexibility: An Idiographic Study with DNA-V

## INTRODUCTION

**Psychological flexibility** is a key factor in athletic **performance** and **well-being** [1]. This study investigates the effects of a DNA-V training [2] on all DNA-V competences and **motivation**, based on psychological flexibility, both in training and competition.

#### **METHODS**

A color-coding scheme based on Thematic Analysis was developed to illustrate psychological flexibility changes. Each DNA-V competence was coded according to its defining characteristics. Below, the colors represent the questionnaires responses:

- Inflexible answer
- Partially flexible answer
- Flexible answer

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TCAME behavior change





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- Design: **idiographic** longitudinal study.
- Psychological training: 12-session **DNA-V program** (60-minute sessions over six months), including in-water practice.
- Assessment: weekly self-report open-ended questionnaires, both after training sessions and competitions, aimed to evaluate DNAV-related skills.

## RESULTS

There are many **differences between participants**, showing the importance of developing individualized trainings.

- **3** strong negative Vision of Self negatively influences all other competences;
- **2,3,4** improvement in both Values and Discoverer, while **1** remains too focused on goals rather than values;
- 2 and 4 connected early to their Values and applied committed actions;
- **1,2,3** small improvement in A (not the aim of the training);
- No athlete showed improvement in Noticer.
- Many thoughts are recurrent among all athletes.

#### DISCUSSION



DNAV-based training is be an effective approach to enhance psychological flexibility in adolescent competitive swimmers.

**Take-home message**: Although the training resulted in positive outcomes for the team, individual differences should be taken into account to address each athlete's need.



Spend time with loved ones

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• Training with friends

• Competing



#### Functional

- "I don't need to focus on finishing first or last, but to go fast"<sup>3</sup>
- Think about giving everything I have before a race <sup>3</sup>
  - Remind myself to stay in the present <sup>1</sup>
  - Focus on technique, what makes me feel good <sup>1,2</sup>
  - During competitions: desire to win—to perform well <sup>1,2</sup>
  - In training: think about why I am training = competitions<sup>2</sup>
  - Think about my values, believing in myself, the coach who motivates me<sup>3,4</sup>



- independent
- Commit consistently
- Improve as a student and as an athlete
- Believe in oneselfSwim for the love of the sport
- Making proud the coach
- Managing school and swiming
- Training with friends



Anticipating the fatigue by thinking about it <sup>1,2,4</sup>
Setting goals that are too difficult: fear of not reaching them <sup>1</sup>

Disfunctional

• Thinking every time that I should have done better <sup>1,3</sup>

• Thinking that the races will go poorly<sup>1</sup>

- Fear of making mistakes of starting too fast <sup>2,3</sup>
- Ruminating on past mistakes<sup>2,3</sup>
- Always finding a negative aspect and focusing on it  $^{\rm 3}$
- Thinking about the slow pool blaming external factors  $^{\scriptscriptstyle 3}$
- Thinking more about the time than the performance itself  $^{\scriptscriptstyle 3}$
- Being afraid of being judged by others during training <sup>3</sup>
- Thinking about how the race will go before or during the performance <sup>4</sup>
- Thinking that I don't feel like putting in effort while I'm in the water<sup>2,4</sup>
- "I'm training alone and there's no one to push me"<sup>2</sup>



**DNA-V disk**: all four athletes' thoughts, actions and values emerged through the questionnaires and during the training sessions.

## REFERENCES

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