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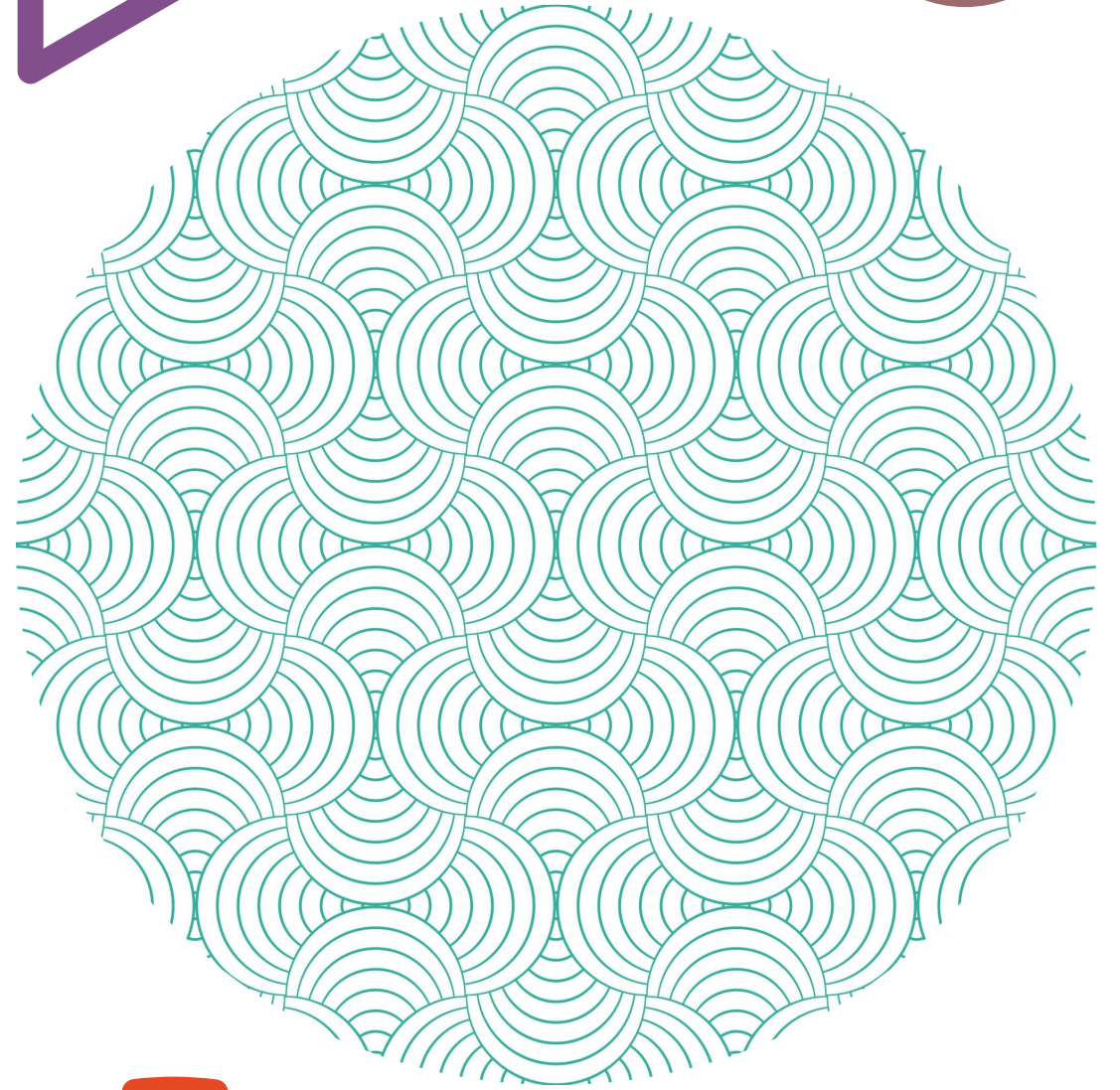
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Is the athlete **REALLY** ready to return to sport following injury?

Dr Dale Forsdyke MSST, CSCS, FHEA
@forsdyke_dale



Session aims

- Evaluate the return to sport landscape
- Define what readiness to return to sport is
- Discuss how readiness impacts return to sport
- Explain different dimensions of readiness and how these can be assessed

The return to sport landscape

Chronic symptoms and impaired function

(Cotchett et al., 2022; Hind et al. 2020; Nilsen et al., 2022)

Return to pre-injury sport

(Ardern et al., 2014; Faleide et al., 2021)

Return to pre-injury levels of performance

(Drew, Raysmith & Charlton, 2017; Raya-Gonzalez et al., 2022; Worner et al., 2021)

Non-volitional retirement

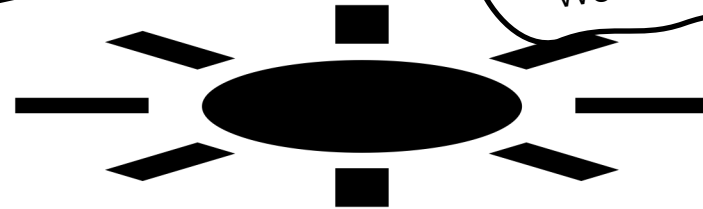
(Ristolainen et al. 2012)

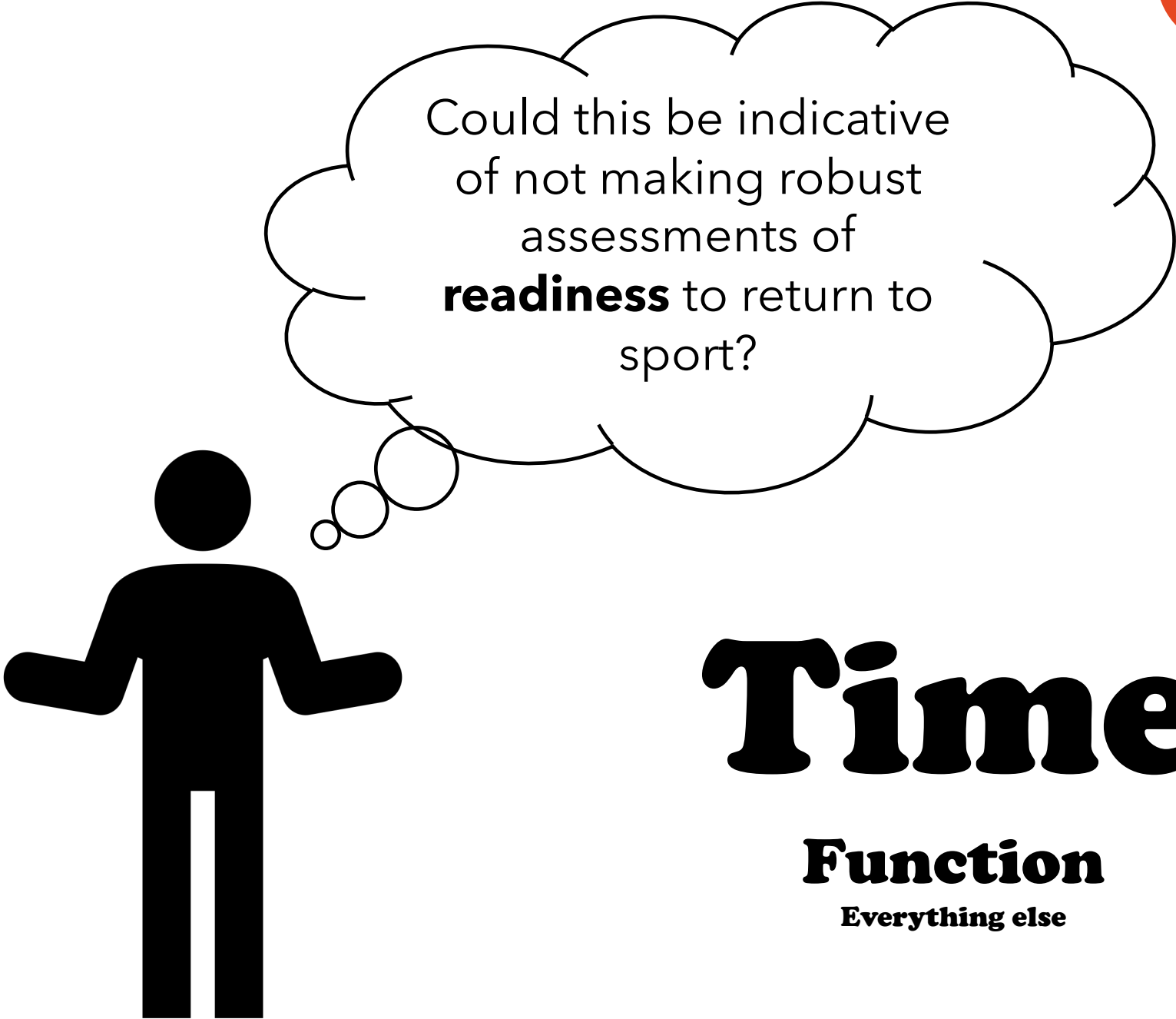
Career trajectory

(Larruskain et al. 2021)

Re-injury

(Ekstrand et al. 2020)





Could this be indicative
of not making robust
assessments of
readiness to return to
sport?

Time

Function

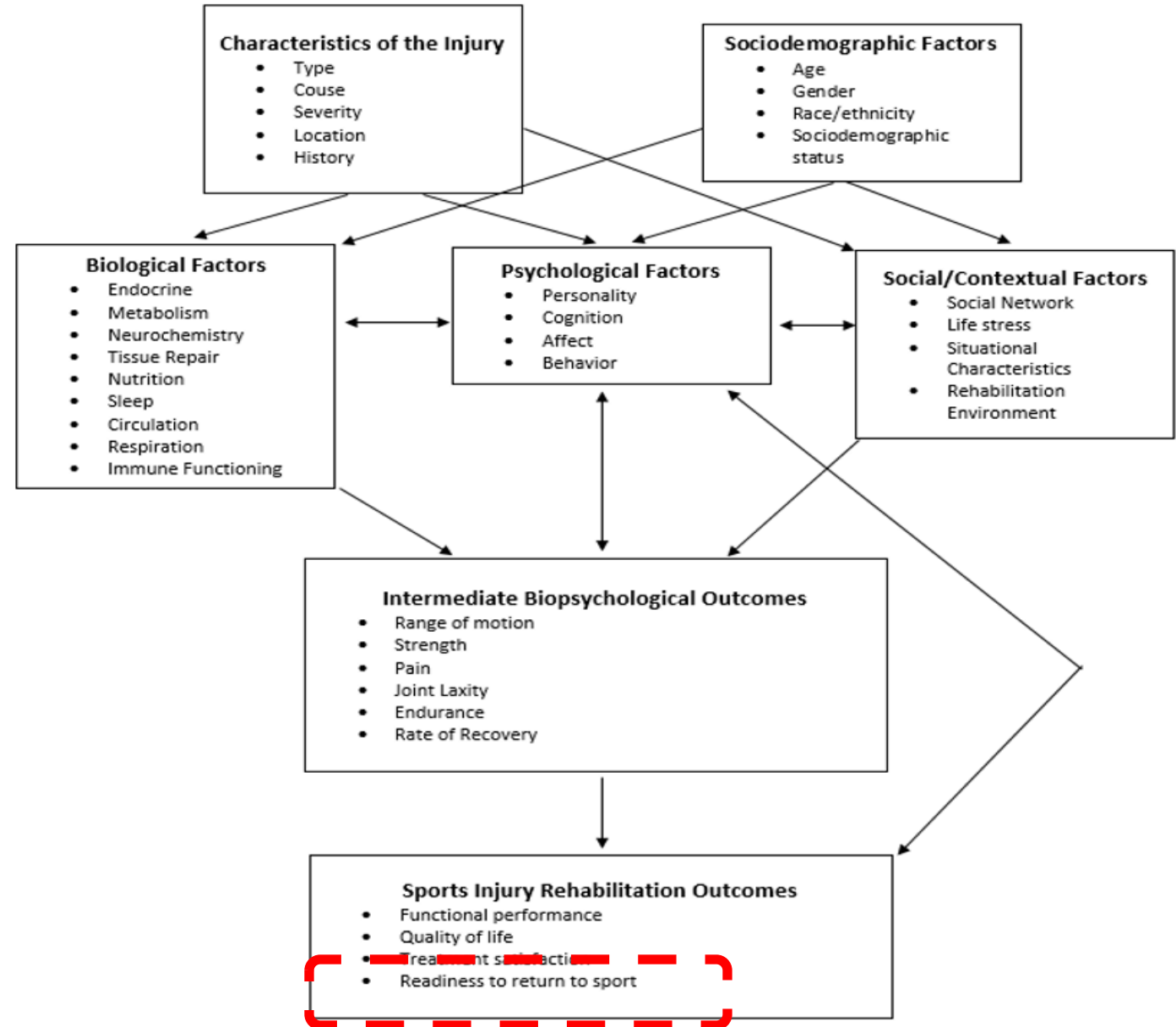
Everything else

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The biopsychosocial model of sports injury rehabilitation

(Brewer, Andersen & Van Raalte, 2002)



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Editor's choice
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Consensus statement

2016 Consensus statement on return to sport from the First World Congress in Sports Physical Therapy, Bern

Clare L Ardern,^{1,2,3} Philip Glasgow,^{4,5} Anthony Schneiders,⁶ Erik Witvrouw,^{1,7}
Benjamin Clarsen,^{8,9} Ann Cools,⁷ Boris Gojanovic,^{10,11} Steffan Griffin,¹²
Karim M Khan,¹³ Håvard Moksnes,^{8,9} Stephen A Mutch,^{14,15} Nicola Phillips,¹⁶
Gustaaf Reurink,¹⁷ Robin Sadler,¹⁸ Karin Grävare Silbernagel,¹⁹ Kristian Thorborg,^{20,21}
Arnlaug Wangensteen,^{1,8} Kevin E Wilk,²² Mario Bizzini²³

**We need to be evaluating
readiness to inform decisions
over return to sport**

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Review

Psychosocial factors associated with outcomes of sports injury rehabilitation in competitive athletes: a mixed studies systematic review

Dale Forsdyke,¹ Andy Smith,² Michelle Jones,³ Adam Gledhill⁴

**Practitioners need to ensure
injured athletes are physically,
psychologically, socially,
tactically and technically ready
to return to sport**

But what is readiness?

Not well conceptualised or operationalised in the literature

A set of multidimensional qualities that are developed over the course of rehabilitation and reconditioning, that will enable the athlete to return to sport (training and competition) and perform to expectations while remaining injury-free



**Functional
readiness**

**Biological
readiness**

**Psychological
readiness**

**Technical
readiness**

**Tactical
readiness**

**Overall readiness to
return to sport**

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Example methods to assess dimensions of readiness

Functional readiness

- **Hop tests**
 - **Distance**
 - **Time**
 - **Number of repetitions**
- **Isokinetic dynamometer (IKD)**
 - **Peak force**
 - **Work done**
- **Athletic shoulder test (ASH)**
 - **Peak force**
 - **Rate of force development**
- **Running T-test**
- **Y-balance**
 - **Lower extremities**
 - **Upper extremities**

Psychological readiness

I-PRRS scale (Glazer, 2009)

ACL-RSI (Webster et al., 2008)

ACL-RSI (SF) (Webster et al., 2018)

SI-RSI (Geromotta et al., 2018)

ALR – RSI (Signonney et al., 2020)

PRIA-RS (Gomez-Piqueras et al., 2014)

TSK (Miller, Kori & Todd, 1991)

RIAI (Walker, Thatcher & Lavalley, 2010)

K-SES (Thomee et al., 2007)

Biological readiness

Time

Imaging

Tensiomyography (TMG)

A Return to sport – ‘Quadrant of doom’

(Forsdyke & Gledhill, 2021)

Functional readiness to return to sport



Psychological readiness to return to sport



**THE PSYCHOLOGY OF
SPORTS INJURY**
FROM RISK TO RETIREMENT

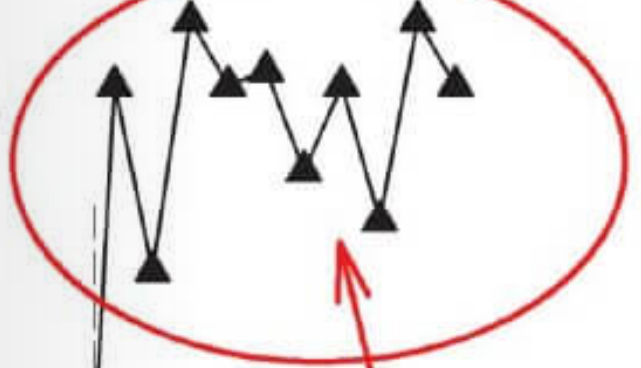
Edited by
ADAM GLEDHILL
AND DALE FORSDYKE



High-Speed Running Distance (m/min)

Training for the average demands will likely result in athletes being under-prepared for the most demanding passages of play

Does our assessment of readiness mirror what we are returning the athlete back to?



Worst Case Scenario

Average Demands

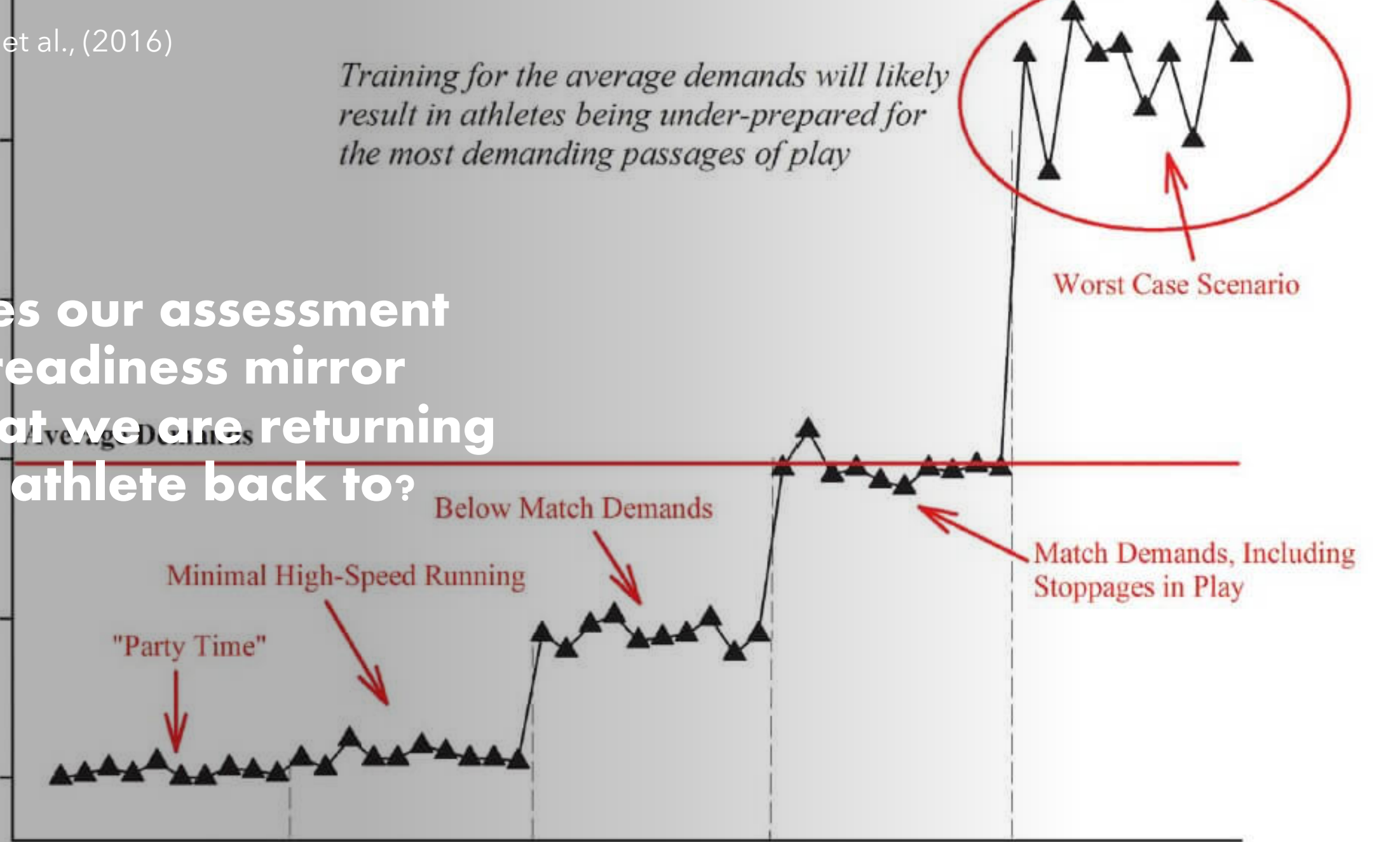
Below Match Demands

Minimal High-Speed Running

"Party Time"

Match Demands, Including Stoppages in Play

Off-Season Break Rehabilitation Skills Match-Play Intense Passages of Play



Maybe we should also consider tactical and technical readiness too

- May fill the gap between current assessments of readiness and demands of what we are returning the athlete back to
 - Open skills and chaotic
 - Cognitively demanding
 - Evaluate other dimensions of readiness in context
- Practically this may mean
 - Periodising your pitch-based reconditioning for tactical and technical demands
 - Observe the athlete on return to training
 - Gain perspectives on readiness from coaches (training form) and sports scientist/performance analyst (key performance indicators)



Functional
readiness

Biological
readiness

Psychological
readiness

Technical
readiness

Tactical
readiness

Overall readiness to
return to sport



‘Being back out there on the pitch has been brilliant. I feel fit, I feel confident and I feel like myself again’

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So, in summary

- Readiness to return to sport appears associated with several important outcomes
- Readiness to return to sport is multidimensional, and as such decisions over returning to training and competition should consider these different dimensions
- Although dimensions of readiness can be measured, we must consider the limitations of these measurement methods

**Any
questions?**

