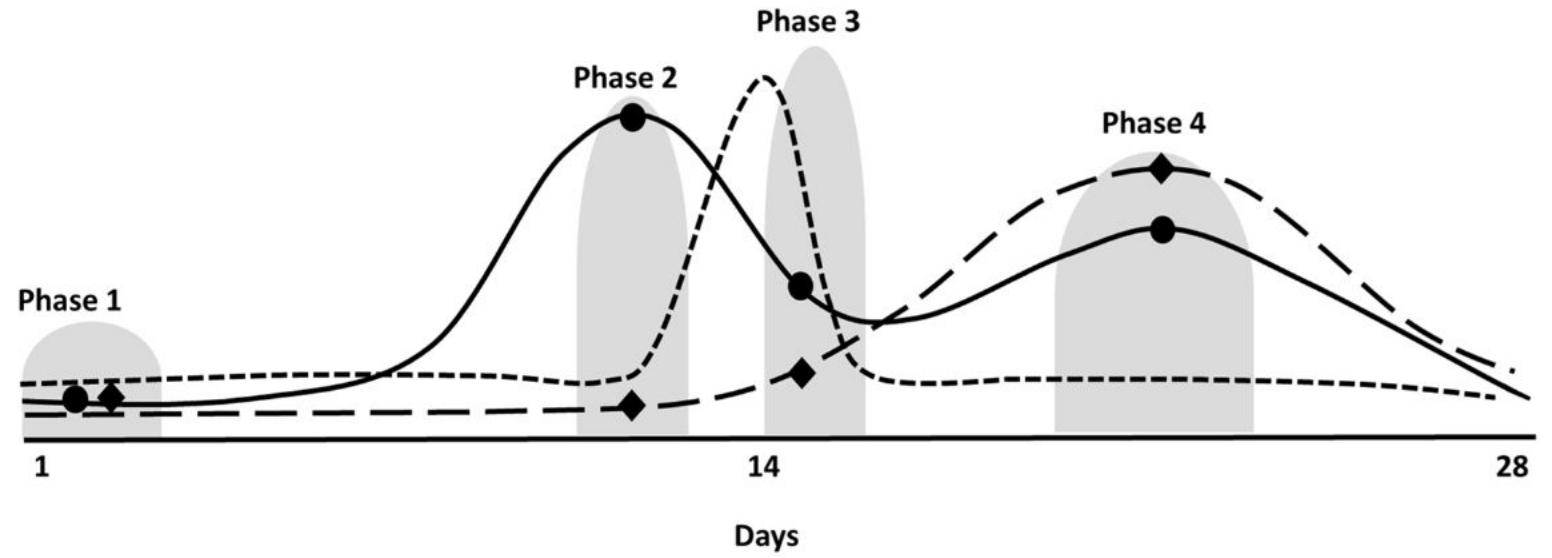


# 6 TH ANNUAL INJURY PREVENTION SYMPOSIUM

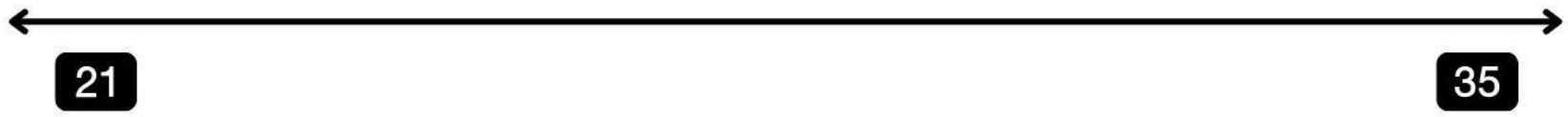
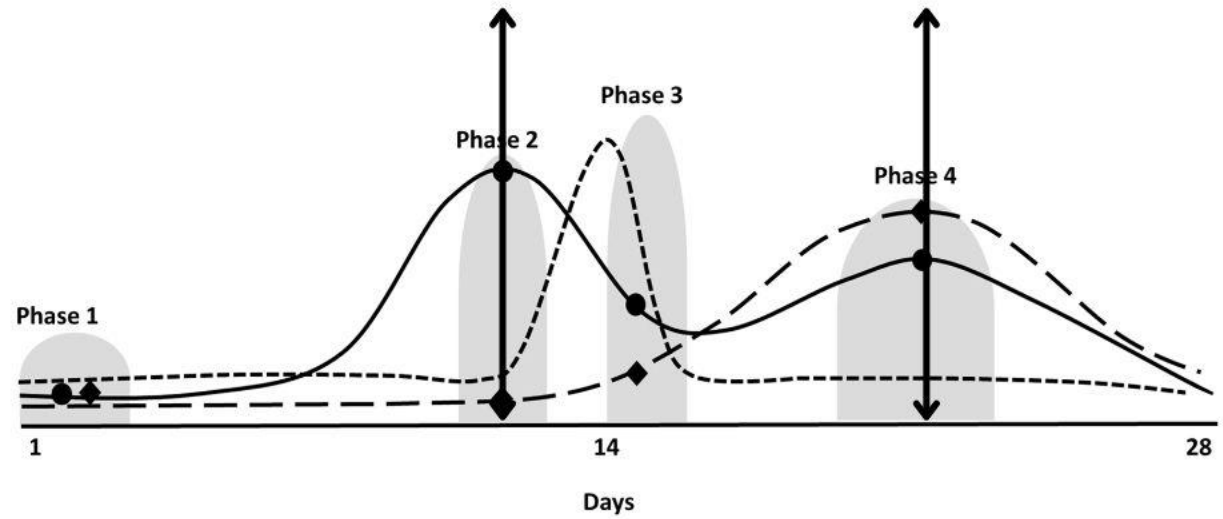
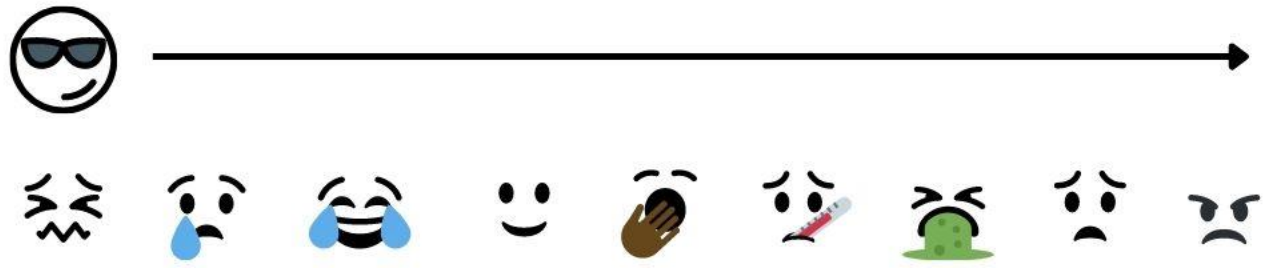
## MENSTRUAL CYCLE CONSIDERATIONS FOR FEMALE ATHLETE PERFORMANCE

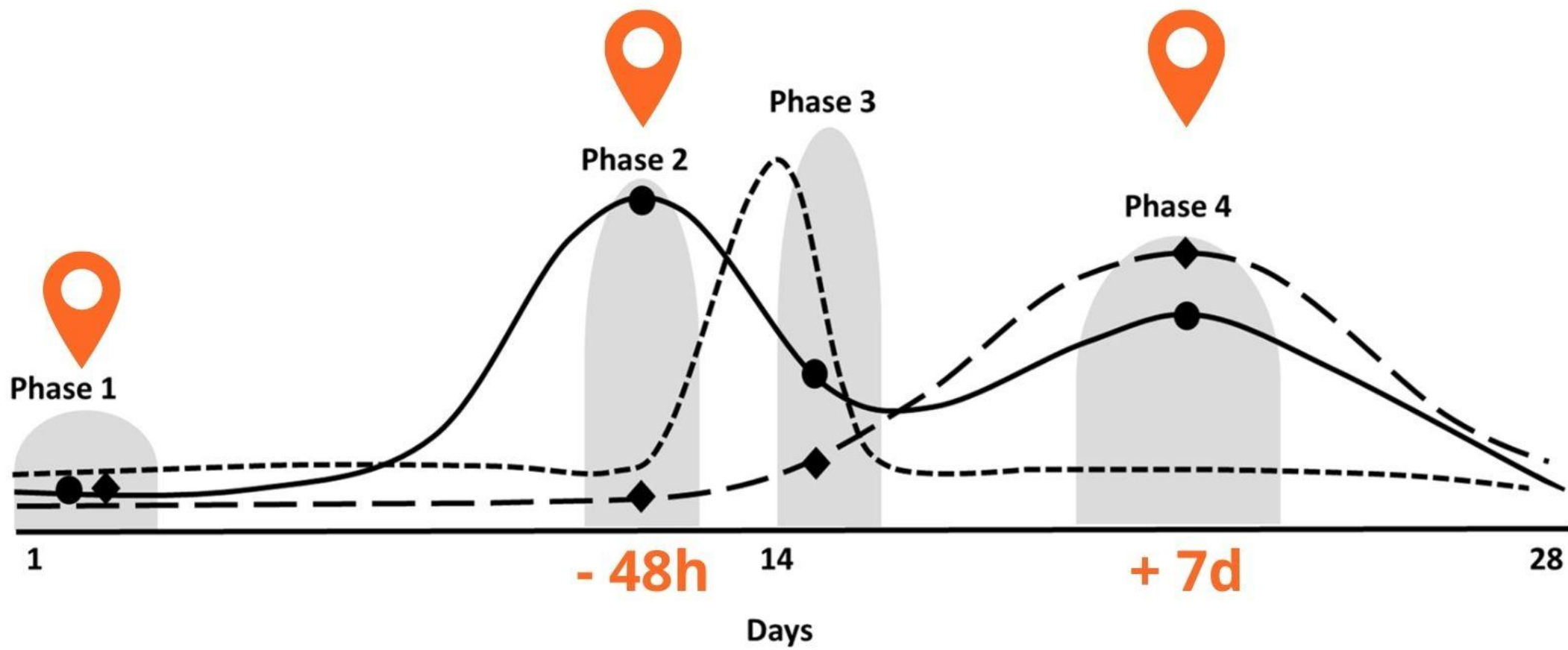
**PROF KIRSTY ELLIOTT-SALE**





# Menstrual cycle





*Question*

**DO THESE CHANGES AFFECT  
PERFORMANCE?**

**YES**

**THEORY V EVIDENCE**

Oestrogen and progesterone receptors throughout body



# THEORY V EVIDENCE

Quality and quantity of research evidence

# PERFORMANCE

51 STUDIES

**8% HIGH QUALITY**

In women, exercise performance might be reduced by a trivial amount during the early follicular phase of the menstrual cycle when compared with other phases. However, large between study variance was identified, indicating that research design, participant characteristics and choice of outcome measure might influence any group level effect.

Practically, the current evidence does not warrant general guidance on modulating exercise across the menstrual cycle. As such, we recommend that a personalised approach should be taken based on each individuals' response to exercise performance across the menstrual cycle.

The quality of evidence for this review was mostly classified as “low” quality, which can be attributed to a range of methodological issues. Future studies need to improve methodological quality and limit confounders in order to facilitate a deeper understanding of the effects of the menstrual cycle on exercise performance.



# CONTEXT OF THE MENSTRUAL CYCLE



## Lifespan

MC: Puberty-Menopause  
Excluding pregnancy,  
hormonal contraceptive use  
& menstrual irregularities



## Prevalence

Audit



## Definition

5 Criteria

# NEXT STEPS



01

## Identify athletes with menstrual cycles

And then identify those who are affected



02

## More high quality studies

Recruit/research those who are affected



03

## Extend research to other times in the lifecycle

Puberty, hormonal contraceptive users, menstrual irregularities, pregnancy/postpartum, and menopause

# THANK YOU

## Publications

Goggle Scholar profile  
Prof Kirsty J Elliott-Sale

## Twitter

@ElliottSale

# REFERENCES

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- Martin D, Sale C, Cooper SB, **Elliott-Sale KJ**. Period Prevalence and Perceived Side Effects of Hormonal Contraceptive Use and the Menstrual Cycle in Elite Athletes. *Int J Sports Physiol Perform.* 2018 Aug 1;13(7):926-932.
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