

The Impact of Mental Toughness on Riders' Psychological Responses to Injury
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INTRODUCTION:

Mental Toughness (MT) increases athletes' abilities to withstand sporting demands, one such demand within equestrian sports is a high risk of serious injury associated with both ridden and non-ridden activity (Carmichael et al., 2014). MT is depictive of how a person responds to challenging, stressful situations, such as injury which is a major source of psychological stress for athletes (Masten et al., 2014), and MT has been linked to effective injury coping in athletes (Johnson, 2020). Injury is deemed an unavoidable element of equestrian sport, horses are sentient beings prone to unpredictable behaviours, and although the risk of equine interaction can be mitigated with experience and skill a significant injury risk remains for riders across all levels (Filby, Jackson and Turner, 2012). How an athlete psychologically responds to injury is influenced by a range of factors including social support and motivation, riders have previously reported negative responses following injury to themselves and to their equine partner, with the normalisation of injury within the equestrian community influential upon their responses (Davies and Steel, 2023). This study aimed to investigate the relationship between rider's psychological responses to injury and MT.



METHOD:

An online questionnaire was carried out including two psychologically validated scales - the Sports Mental Toughness Questionnaire (SMTQ-14) and the Psychological Responses to Sports Injury Inventory (PRSII) – completed by a total of 552 participants (537 female, 12 males and 3 who preferred to self-identify). Participants had all experienced a serious injury partaking in either mounted or unmounted equine activity in the 12 months preceding data collection that impacted daily life for a minimum of 21 days. All levels of rider, competitive and non-competitive, were eligible to participate. The SMTQ-14 is a validated measure of mental toughness, presented in the form on a 4-point Likert scale, possible overall scores range from 14-56 with a score given for each subscale – confidence, constancy and control. A higher score denotes higher levels of mental toughness. The PRSII is a measurement of how an athlete psychologically responds following injury, consisting of 19 statements in the form of a 5-point Likert scale. The questionnaire consists of 5 subscales, 4 of the subscales are considered negative – devastation, restlessness, isolation and feeling cheated – higher scores in these subscales indicate a more adverse negative response following injury. A higher score in the positive subscale – reorganization – depicts a more positive response following injury.

A Spearmans-Rho test of correlation tested the relationship between SMTQ-14 and PRSII subscales. Kruskal Wallis tests were performed to analyze the differences in SMTQ-14 and PRSII subscales between riders' self-reported compliance with prescribed rest and how easily they reported this transition.

RESULTS:

Results indicated weak to moderate relationships between all PRSII and SMTQ-14 subscales, other than between 'confidence' and 'devastation'. The ease of rider's return was significantly affected by all SMTQ-14 subscales shown in Figure 1 and PRSII Subscales shown in Figure 2. A statistically significant relationship was found between all PRSII subscales, other than 'feeling cheated', and riders' rest compliance, 'Devastation', $H(2)=19.428$, $p<0.001$, 'reorganisation', $H(2)=14.330$, $p<0.001$, 'restlessness', $H(2)=12.741$, $p=0.002$, 'isolation', $H(2)=14.467$, $p<0.001$. The SMTQ-14 subscale 'confidence' was reported as significant regarding riders' rest period compliance, $H(2) = 9.095$, $p=0.011$.

Table 1: Means and Standard Deviations for SMTQ-14 Scores

SMTQ-14 Subscale	Mean	Standard Deviation	Range
Confidence	14.82	3.51	6-24
Constancy	12.20	2.22	4-16
Control	9.90	2.83	4-16
Total MT Score	36.91	6.30	14-56

Table 2: Means and Standard Deviations for PRSII Subscale Scores

PRSII Subscale	Mean	Standard Deviation	Range
Devastation	9.48	3.96	4-20
Reorganisation	7.51	2.64	3-15
Feeling Cheated	7.61	3.58	4-20
Restlessness	9.42	3.99	4-20
Isolation	7.98	3.67	4-20

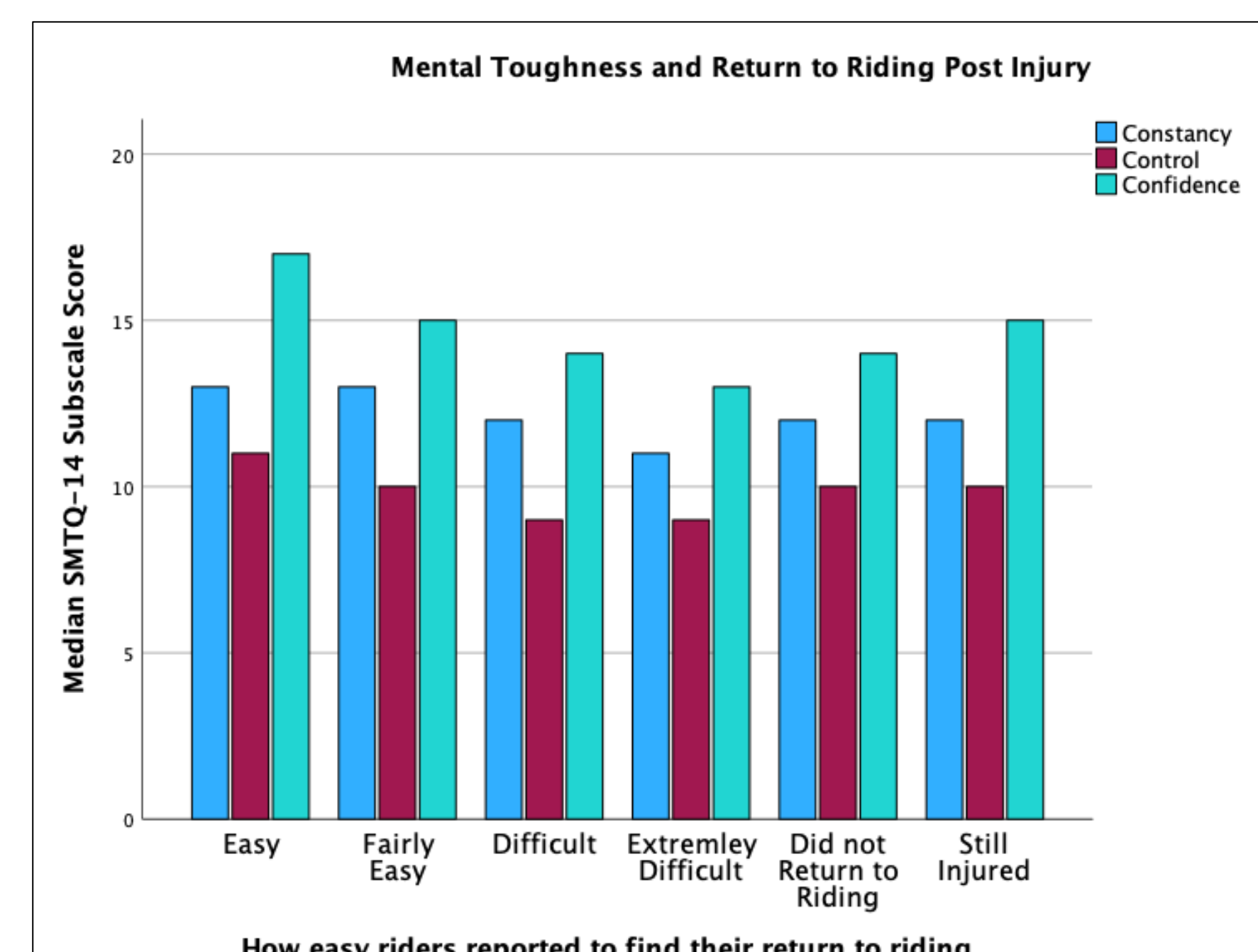


Figure 1: Riders' Median SMTQ-14 Subscale Scores and Return to Riding.

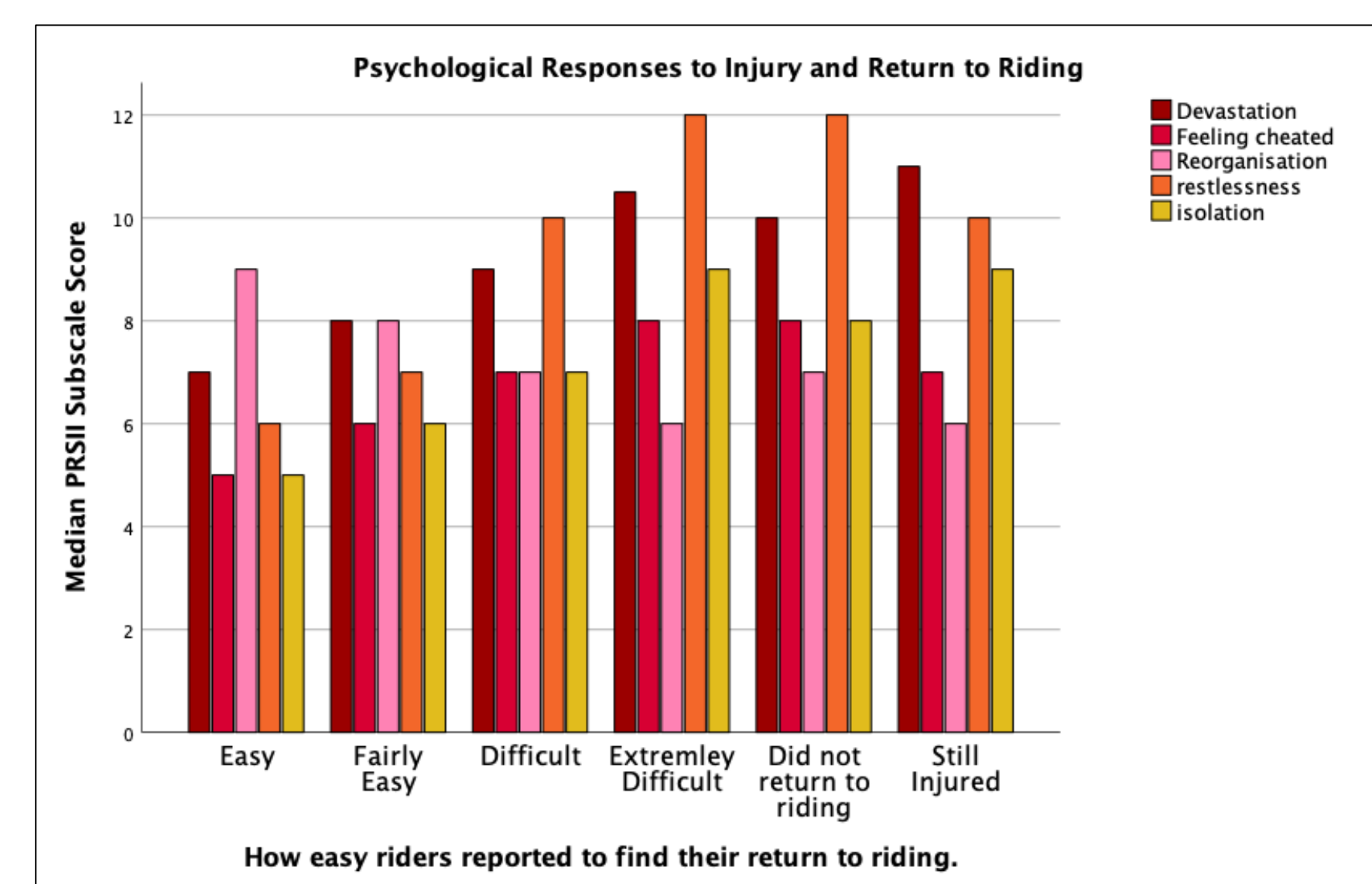
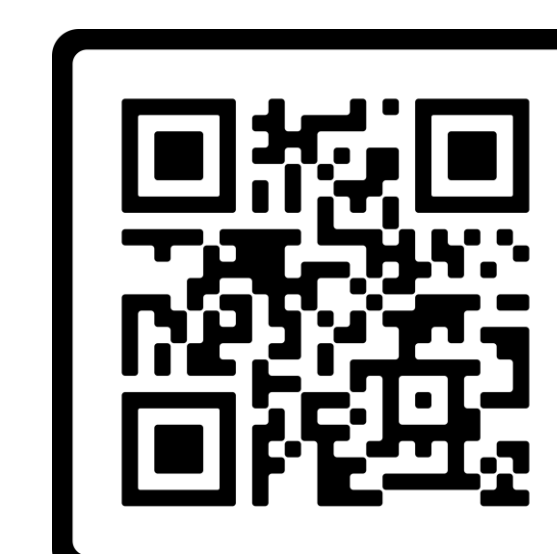


Figure 2: Riders' Median PRSII Subscale Scores and Return to Riding

DISCUSSION & CONCLUSIONS:

Findings suggest that MT has the potential to impact a rider's psychological responses to injury, with more adverse responses seen in those with lower MT. The impact of psychological responses to injury and mental toughness on riders' rest compliance and ease of return indicates that psychological skills training may be necessary to enhance the MT of riders to ensure they are adequately equipped to manage injuries as a result of participation. Education of equestrian coaches surrounding the psychological implications of injury and strategies for recovery is also suggested to ensure adequate support is made available to riders in their transition back to riding post-injury.

REFERENCES:



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