

## **SELF-HANDICAPPING IN INTERMEDIATE SPORT CLIMBERS: A QUALITATIVE EXPLORATION OF DECISION MAKING AND ITS INFLUENCE ON PERFORMANCE**

Giles, D.<sup>(1)</sup> and Draper, N.<sup>(2)</sup>

<sup>(1)</sup>Health and Social Care Research Centre, College of Health and Social Care, University of Derby, UK drdagiles@gmail.com

<sup>(2)</sup>School of Health Sciences, University of Canterbury, Christchurch, NZ  
Nick.Draper@Canterbury.ac.nz

### **ABSTRACT - ENGLISH**

*There is a lack of research exploring stressors in the climbing environment, the methods climbers use to manage their responses and how some climbers are able to maintain performance, while others are not. Through semi-structured interviews, the experiences of 61 climbers who regularly took part in the sport were examined. Interviewees discussed decisions regarding the challenges they chose, and how these challenges were associated with a range of antecedents, moderators and consequences for performance and enjoyment. The defining characteristic of lead climbing was the anticipation of the potential for taking falls. Avoidance behaviour was discussed, including the difficulty of the route, taking controlled falls, the style of ascent, being taken tight on the rope before failure and changes in clipping positions. These choices moderate the physical, psychological and technical challenge and allow intermediate climbers to engage with the sport on their own terms, with an acceptable level of control during their sessions. For these climbers, however, decisions appear to be made at the expense of performance. Climbers and coaches should be aware of the potential for performance inhibiting decision making during climbing sessions and their implications for progression, enjoyment and performance.*

### **KEYWORDS - ENGLISH**

Avoidance; Rock Climbing; Intermediate; Interviews; Decision Making

**ABSTRACT – FRENCH**

*Il y a un manque de recherche qui explore les facteurs de stress dans l'environnement d'escalade, les méthodes utilisées par les grimpeurs pour gérer leurs réponses et comment certains d'entre eux sont capables de maintenir leur performance tandis que d'autres ne peuvent pas le faire. A travers des interviews semi-structurées l'expérience de 61 grimpeurs (des pratiquants réguliers) a été examinée en détail. Les gens interviewés parlaient de leurs décisions en rapport des défis qu'ils décident d'entreprendre, et comment ces défis étaient associés avec une gamme de précédents, modérateurs et conséquences pour la performance et le plaisir. Les caractéristiques définitives de l'escalade étaient l'anticipation et le potentiel d'une chute. On a parlé des comportements d'évitement, y compris les choix discrets, tels que la difficulté de la route, la possibilité de prendre les chutes contrôlés et des choix manifestes tels que le style d'ascension, la façon qu'on peut être bien tenu sur la corde avant d'échouer et les changements qu'on peut faire avec les points d'attaches. L'ensemble de ces choix permet la modification physique, psychologique, et technique du défi et permet aux grimpeurs intermédiaires de s'engager avec le sport à leurs propres conditions et d'exercer un élément de contrôle pendant leurs séances. Cependant il paraît que les décisions prises sacrifient la performance. Les grimpeurs et leurs moniteurs devraient avoir conscience du potentiel pour les décisions négatives d'être prises pendant les séances et l'implication pour la progression, le plaisir et la performance.*

**KEYWORDS - FRENCH**

Évitement; Escalade; Intermédiaire; Interviews; La prise de décision

## INTRODUCTION

There is considerable anecdotal evidence within climbing coaching literature that indoor lead climbing is a psychological stressor, with potentially detrimental consequences for performance (Hague & Hunter, 2011; Hörst, 2008; Macleod, 2010). The sources of this stress have been speculated about, largely focusing on a fear of falling, or its unknown consequences (Hörst, 2008; Macleod, 2010). Despite a number of detailed quantitative psychophysiological studies, results have been largely equivocal (Draper et al., 2012; Fryer, Dickson, Draper, Blackwell, & Hillier, 2013). Considering the contention of coaches and authors, it is likely that fear and anxiety are experienced by a considerable proportion of climbers when leading, with consequences for performance, progression and enjoyment. However, there is a paucity of research on factors underpinning climbers' behaviour and their decision-making process. Consequently, this study aimed to explore salient stressors in the climbing environment, the methods climbers use to manage their responses and how some climbers are able to maintain performance, while others are not.

## METHODS

Through convenience sampling, 61 participants (aged  $33.4 \pm 10.1$  [mean  $\pm$  SD]; 14 female, 47 male) were recruited to take part in interviews. Intermediate to advanced participants were included based on the self-reported on-sight ability of between French 6a+ to 6c+ (YDS 5.10c to 5.11c; Draper et al., 2016). The climbers had been participating in the sport for a number of years (males  $10.5 \pm 10.1$  years; females  $7.7 \pm 5.9$  years) and took part in the sport regularly (males  $2.6 \pm 1.2$  sessions per week; females  $2.6 \pm 1.1$  sessions per week). The study was approved by the lead author's University Research Ethics Committee. Individual semi-structured interviews explored in detail participants constructs of climbing performance and their antecedents in the context of indoor lead climbing, with specific reference to sources of fear and anxiety. The interviews aimed to ascertain why some climbers are unable to maintain performance on lead climbs as highlighted in coaching literature and previous studies exploring style of ascent. The interviews were recorded and ranged in duration from 30 to 35 min. The interview data were analysed following the principles of framework analysis (Ritchie, Lewis, Nicholls, & Ormston, 2013) and interpreted with thematic analysis (Braun, Clarke, & Terry, 2014).

## FINDINGS & DISCUSSION

Research is needed to address lack of knowledge of salient stressors in the climbing environment, the methods climbers use to manage their responses and how some climbers are able to maintain performance, while others are not. Through interviewing and exploring the experiences of 61 intermediate and advanced climbers who regularly practice indoor climbing the findings of the present study are able to describe in detail the challenges faced by climbers, providing rich insight for climbers, coaches and future research. Three key themes were apparent: (1) climbers' perceptions of internal stressors within indoor lead climbing; (2) factors that influence the amount of control climbers' have over stressors; and (3) external mediating factors.

The defining characteristic of lead climbing discussed by the interviewees was the potential for taking falls, particularly the anticipation of falling. *"I am scared about falling . . . I am fine going bold until I suddenly know that I am absolutely at my limit and I am not sure how this fall is going to be and then I'm terrified."* (CA,

Male, f6b/6b+), such factors were described by 80% of interviewees. Climbing indoors, while objectively safer than climbing outdoors (Schöffl, Morrison, Schwarz, Schöffl, & Küpper, 2010), still presents a considerable number of stressors that may serve to disrupt the performance of climbers (Nieuwenhuys, Pijpers, Oudejans, & Bakker, 2008). The feelings described by the interviewees may often have been disproportionate in terms of both their frequency and their magnitude and may occur in response to a threat that is either actual or potential (Steimer, 2002). *“When you actually do [fall] it's not that bad. I trust [my climbing partner] to be a competent belayer I trust him not to let me deck out, it just wouldn't happen. It is just one of those irrational silliness that you have.”* (AK, Female, f6a/6a+). However, the physiological and psychological responses and behavioural changes that occur are real (Sagar, 2001). The function of these responses likely facilitates coping with an adverse situation. Fear or anxiety result in the expression of a range of adaptive or defensive behaviours, which are aimed at escaping from the source of danger or motivational conflict (Steimer, 2002). Even if irrational and towards a threat only imagined or anticipated by the climber, such anticipated threats can have a real, significant, debilitating effect on performance (Nieuwenhuys et al., 2008).

Many of the stressors present in the climbing environment are self-selected, including the safety protocol, route difficulty and climbers' knowledge of the challenges and movement sequences a route contains. The complex and multifaceted nature of the sport of climbing afford those taking part a range of opportunities to challenge themselves, and equally to exert control over the challenges of the sport: *“f6a+ on overhanging I will go for, f6b on overhanging I would expect to fall off, therefore I probably wouldn't bother with it. Because again I wouldn't do that sort of thing outdoors because if I thought I was going to fall off I would rather not.”* (CH, Male, f6a/6a+). In many cases, decisions around these climb characteristics were influenced by fear or anxiety around falling (e.g. route difficulty 39%, route knowledge 15%, height above ground 11%). Choices made around these climb characteristics allow the climber to change, manage and exert control over the stressors faced.

Of the strategies discussed to maintain control particularly prevalent was avoidance behaviour, a typical response to feared activities or situations (Richard & Lauterbach, 2011). Some decisions made by the interviewees highlighted may be considered discreet, such as the difficulty of route choice, taking controlled falls on routes and changes in the clipping position. Other decisions are more overt, such as the style of ascent or choosing to be taken tight on the rope before failure: *“If I am doing a route that I am not comfortable with sometimes I will opt out, I will opt to fall instead of making the next move to try and clip. So that is a mind game.”* (AJ, Male, f6b/6b+). While important for allowing the climber to participate on their own terms, longer term avoidance in the climbing environment is likely to perpetuate anxiety and avoids dealing with issues likely to affect performance (Clarke & Jackson, 1983).

While considered a solo sport, inter-personal relationships were the most important of moderating factors. The belayer and climbing partner(s) are an inherent part of the climbing experience, engaging, protecting and supporting the climber during their sessions. If trust between the belayer and the climber does not exist or has not had time to develop, several interviewees describe issues with the climber struggling to place trust into the person who is belaying: *“It is very important who is belaying me and on that actually that depends how I am climbing. If it is someone that I don't know I just say bloc [take] when it is too hard.”* (CC, Female, f6a/6a+). Secondly, the motivational and emotional support of the climbing partner was referred to by a third of

the interviewees: “Yeah the people that I am climbing with is a big one. If I am climbing with someone who is sort of quite competent and is climbing at quite a high level, I am more likely to climb to push myself, because I think it is just you get more motivated too. I think you sort of think ah I am going to try and push myself as well.” (BS, Male, f6b/6b+).

To conclude, to our knowledge this is the first study within the sport of climbing’s growing body of literature that has qualitatively explored climber’s perceptions towards indoor recreational lead climbing. The findings support coaches’ assertion of the stressors involved in lead climbing and offer potential explanations for the variability seen in previous psychophysiology research (Draper et al., 2012; Fryer et al., 2013). Developing significantly on previous results, the interviewees discussed control and avoidance behaviour. Specifically, the interviewees identified how stressors in the climbing environment influenced their perception of control and coping resources and the decisions they make in order to manage the stressors, particularly avoidance behaviour. The findings of the present study have implications for coaches working with intermediate climbers identifying sources of stress and areas for potential gains in performance. However, perhaps most importantly, understanding the challenge faced by climbers developing and progressing into lead climbing could have significant implications for long-term participation in the sport, as anxiety has also been associated with discontinuation of sport participation and less pleasure while participating (Crane & Temple, 2015).

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