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Examining Group Differences in Emotion Regulation Strategies and the State and Trait Anxiety of Lifeguards and Non-Lifeguards in a Real-World Precompetitive Situation

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Abstract

The purpose of this study was to investigate differences, between swimmer-lifeguards and swimmer-non-lifeguards, in trait and state anxiety and emotion regulation techniques in a real-life precompetitive situation with a secondary focus on gender differences. The Emotion Regulation Questionnaire, Sport Anxiety Scale – 2 and the Mental Readiness Form – 3 were distributed to 100 participants at university swimming competitions in the United Kingdom. Swimmer-lifeguards displayed significantly lower cognitive (p=.03) and somatic state (p=.05) anxiety and cognitive trait anxiety (p=.02) than swimmer-non-lifeguards. Males reported significantly lower levels of cognitive and somatic trait anxiety (p<.01) than females. There was also a gender-group interaction, with male swimmer-lifeguards showing significantly lower somatic trait anxiety than the other groups (p<.03). Males indicated significantly greater use of reappraisal than females (p=.01); no other effects were observed. These results support previous research regarding lifeguard characteristics, however the nature of these qualities and how they originate require further exploration.

Keywords: lifeguards, cognitive anxiety, somatic anxiety, reappraisal, suppression

Introduction

Anxiety has been referred to as a pre-emptive emotion that can influence individuals' responses to a perceived threatening situation (Balague, 2005). State anxiety has been depicted as the moment to moment physiological and psychological responses to a stressful situation (Hanin, 2010; Weinberg, 2011), varying on the context and the apprehensions of the individual towards the situation (Spielberger, 1966). Cattell (1966) explained trait anxiety as characterological anxiety; implying that this characteristic defines how they perceive situations as threatening (Spielberger, 1966) and how resilient the individual is to feelings of anxiousness (Bishop & Forster, 2013). Generally, those with higher trait anxiety are more likely to respond to stressful situations with heightened state anxiety (Spielberger, Gonzalez-Reigosa, Martinez-Urrutia, Natalicio, & Natalicio, 1971). Research within sport has found that participants who experience higher precompetitive trait anxiety report increased precompetitive state anxiety, which also led to poorer performances when compared to low trait anxiety competitors (Hanton, Mellalieu, & Hall, 2002; Weinberg & Genuchi, 1980).

Increased anxiety can be a significant influence on athletes' mental preparation towards an upcoming performance (Hanin, 2010; Jones, Mullen, & Hardy, 2019) due to perceived pressures about performing well (Craft, Magyar, Becker, & Feltz, 2003). This pressure may be specifically prominent in individual sports since the success is dependent exclusively on one athlete (Craft et al., 2003; Scanlan & Lewthwaite, 1984). The effects of precompetitive anxiety may depend on the duration of the sporting event, with anaerobic activities being more susceptible to the negative impacts of anxiousness due to

the shorter length of time competing, compared to more lengthy aerobic events (Raglin, 1992).

Differences in experiences of anxiety prior, during, and following a sporting performance have also been observed between genders. For example, females generally have higher anxiety, and are more likely to display psychological and physiological signs and symptoms, than males (Avramidou, Avramidis, & Polman, 2007; McLean & Anderson, 2009). Jones, Swain, and Cale (1991) also found that cognitive anxiety towards an upcoming competition increased progressively for females but remained steady for males. A meta-analysis conducted on 48 eligible studies, however, found differences in the mean effect sizes between genders, which suggested that males and higher level athletes were significantly more susceptible to the effects of precompetitive anxiety on their performance than females and lower level athletes (Woodman & Hardy, 2003).

Emotion Regulation

Emotion regulation has been defined as a series of conscious and unconscious thoughts and behaviours affecting the intensity, frequency, and extent to which the emotion is expressed (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Gross & Thompson, 2007; Uphill, McCarthy, & Jones, 2009). The way in which athletes manage and perceive emotions in sport has an influence on their performance (Vast, Young, & Thomas, 2010); however, each athlete experiences different interpretations of anxiety, therefore techniques used to control emotions cannot be fully generalised to all performers (Hanin, 2003; Robazza, Pellizzari, & Hanin, 2004) in all sporting contexts (Gaudreau, Blondin, & Lapierre, 2002). The intensity of emotions and anxiety in sport vary depending on pre-performance, mid-performance, and post-performance circumstances (Hanin & Stambulova, 2002) and managing these emotions may depend on the emotional evaluation in that moment (Gross & John, 2003).

Many emotion regulation strategies have been proposed (Gross & John, 2003); however, we focus on two main techniques in this current research (cognitive reappraisal and suppression) due to the frequency of using these methods to regulate and down-grade emotions (Gross, 2002). “Cognitive reappraisal involves changing the way the individual thinks about a potentially emotion-eliciting situation in order to modify its emotional impact; expressive suppression involves reducing emotion-expressive behaviour once the individual is already in an emotional state” (John & Gross, 2004, p. 1302). We focus on reappraisal and suppression because they can be used in competitive sport to control anxious feelings (Uphill et al., 2009), both as separate strategies or in a combined approach (Gross & John, 2003; Gross & Thompson, 2007). Athletes, who focus on one method of emotion regulation as opposed to another, may encounter certain emotional consequences (Uphill et al., 2009). Reappraisal has been associated with more psychological benefits than

suppression (Carlson, Dikecligil, Greenberg, & Mujica-Parodi, 2012; Gross, 1998). Results have indicated that reappraisal users are more stress resilient than suppression users, as reappraisal can reduce negative anxiety inducing factors whilst increasing the positive experience of that situation (Carlson et al., 2012; Dennis, 2007). Conversely, suppression can ultimately decrease the behavioural expressions of the individual; however, it does not eliminate subjective negative emotions experienced (Campbell-Sills et al., 2006). Therefore, the individual may appear less anxious to an external observer; however, the suppression technique may limit the level of emotional management experienced and thus the individual may fail to regulate their anxiety.

Within competitive sport research, supressing emotions has been linked to heightened awareness of negative emotions (Lane, Beedie, Jones, Uphill, & Devonport, 2012), reduction in performance capacity (Wagstaff, 2014), and utilising more cognitive resources therefore influencing the sporting outcome (Wagstaff, Hanton, & Fletcher, 2013). Reappraisal is viewed positively because it is associated with more optimistic emotions, aiding the reduction of the distress felt by individuals and dispersing any undesirable anxieties (Campbell-Sills et al., 2006; Gross & John, 2003; Hill & Davis, 2014; Uphill et al., 2009). Hofmann, Heering, Sawyer, and Asnaani (2009) assessed the anxiety levels of participants after being told to give an impromptu speech. The suppression group demonstrated significantly higher heart rate and reported more anxiety, again inferring the suppression technique influenced these negative connotations. Interestingly, Hofmann et al. (2009) stated that following the evaluations from the questionnaires used, it was doubtful the observed effects of emotion regulation techniques were the result of differences in trait social anxiety. Apparently, the level of anxiety the individual naturally displayed did not influence the emotion regulation strategy they used.

Lifeguard Research

Researchers investigating lifeguards have focused on competitive lifesavers and lifeguards, which are important terms to differentiate. Competitive lifesavers are any age and participate in lifesaving, a sport that "tests a lifesaver's skills in rescue, accident prevention and emergency care" (Royal Life Saving Society - Australia, 2018), allowing competitors to simulate rescue scenarios and enhance their skills against nature and victim struggles (Avramidou et al., 2007). Lifeguards, however, are individuals who are employed in aquatic settings to prevent patron drownings and save human lives (Avramidou et al., 2007). Similarities exist between lifesavers and lifeguards since they both have comparable skill sets; however, lifeguards are employed to prevent drownings in real-life scenarios, whereas competitive lifesavers simulate those rescue skills in a competitive situation, with no life or death risk on the imitation victims.

Lifeguarding involves long periods of static inactivity and short bursts of action and high anxiety during an incident (Coblentz, Mollard, & Cabon,

2001). Despite this profession involving high human emotion and anxiety, limited research has been conducted into the psychological demands (Avramidou et al., 2007), anxiety levels, and emotion regulation lifeguards experience. Lifeguards display similar personality qualities to those in other physically risky professions, such as firefighters, potentially due to the characteristics of the job relating to life and death (Wismeijer & Gomà-i-Freixanet, 2012). Wismeijer and Gomà-i-Freixanet (2012) claimed that the lifeguarding profession may attract individuals who possess certain personality traits that draw them to risky and dangerous behaviours, undertaking a self-selection process. Professions and activities involving high stress situations (e.g., firefighters or lifeguards) could naturally be less anxious, holding a certain quality that is different to those who do not wish to undertake such a role (Wismeijer & Gomà-i-Freixanet, 2012). Despite this, limited investigations have been undertaken about lifeguarding in spite of the similarities between the risky professions (Avramidis, 2009).

Failure of a lifeguard to successfully manage their heightened emotions could impact their psychological wellbeing and ultimately their physical capabilities in an emergency (Avramidis, 2009). Avramidou et al. (2007) showed that competitive lifesavers (similar to lifeguards) displayed lower trait anxiety than competitive swimmers in a stressful situation. These reduced anxiety levels could be beneficial to competitive lifesavers as the sport requires them to make critical decisions about simulated human life at high performance intensities, therefore, high trait anxiety could be detrimental to performance (Avramidou et al., 2007). High trait anxiety would also be inhibiting for lifeguards when attempting to remain calm and composed throughout a real-life rescue (Chang, Hsieh, Huang, & Lin, 2017; Wismeijer & Gomà-i-Freixanet, 2012), as they are required to deal with extreme human emotions of those involved in the emergency, and to take the lead of the situation and manage the other individuals' emotions as well as their own. Priest (1992) advised the lifeguard should not be put straight back on duty and recommended debriefing rescuers after the incident, therefore, allowing lifeguards the opportunity to reappraise the situation and diffuse any concerns. Research focusing on lifeguards has analysed their scanning techniques and physical ability to carry out their role (e.g., Griffiths, 2013), but emotion regulation control, in such an unpredictable job, remains largely unexplored. Hence, the purpose of this research was to identify emotion regulation techniques and trait and state anxiety responses to a competitive swimming event for competitive swimmers who were also qualified lifeguards, and competitive swimmers who were not qualified lifeguards, and highlight any differences between the groups.

The Current Study

The current investigation aimed to analyse the trait and state anxiety of swimmer-lifeguards and swimmer-non-lifeguards and identify the emotion regulation techniques that the groups used in a precompetitive scenario, as well

as analysing the effects of gender on both the groups. Based on lifesavers research (Avramidou et al., 2007), it was anticipated that swimmer-lifeguards would report lower levels of trait and state anxiety than swimmer-non-lifeguards. Further, as Gross and John (2003) identified those who use reappraisal as likely to take on challenging situations, it was hypothesised that swimmer-lifeguards would display more reappraisal and less suppression than swimmer-non-lifeguards. It was also hypothesised that females in the group would display higher levels of anxiety than males, and that males would use more suppression than females (Gross & John, 2003).

Method

Participants

A convenience sample of 100 student participants (54 Males, 46 Females; M_{age} = 19.7, SD_{age} = 0.99) who competed at nominated University swimming competitions were recruited for the study. British University and College Sport (BUCS) swimming competitions were selected for data collection sites as they are prestigious university competitions in the UK, attracting athletes with experience in competitive swimming at a high level.

Participants naturally fell into one of two groups: competitive swimmers who were also qualified lifeguards (i.e., 'swimmer-lifeguards') and competitive swimmers who were not qualified lifeguards (i.e., 'swimmer-non-lifeguards'). The swimmer-non-lifeguards group were 46 competitive swimmers (21 M, 25 F) who had no lifeguarding experience or qualifications, whereas the swimmer-lifeguards sample comprised of 54 participants (33 M, 21 F) who were competitive swimmers and held a lifeguarding qualification.

Measures

Emotion Regulation Questionnaire *(ERQ)*. The ERQ is a 10-item instrument assessing the habitual use of two emotion regulation strategies: reappraisal and suppression (Gross & John, 2003). Six items measured the use of reappraisal (e.g., *I control my emotions by changing the way I think about the situation I'm in*), while four items assessed the use of suppression (e.g., *When I am feeling negative emotions, I make sure not to express them*). Participants rated their answers on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). Total scores for reappraisal ranged from 6-42 and suppression 4-28, but mean scores were then calculated to give a final score ranging from 1-7 with higher scores indicating the tendency displayed towards either method. Gross and John (2003) presented alpha reliabilities for the ERQ of .79 for Reappraisal and .73 for Suppression, and test–retest reliability over a 3 month period was .69 for both strategies. Cronbach's alpha for the ERQ within this study was .44, and .20 for Reappraisal and Suppression, respectively.

Sport Anxiety Scale – 2 (*SAS2)***.** The SAS2 is a 15-item tool for analysing the somatic anxiety, worry and concentration disruption of athletes before or during

a sporting activity (Smith, Smoll, Cumming, & Grossbard, 2006). Participants rated each item on a four-point scale; 1 (*Not at all*), 2 (*A little bit*), 3 (*Pretty much*) and 4 (*Very much*), with five items measuring each SAS2 subscale. Overall scores were the sum of the rated points on the scales, and individual subscale scores were the sum of the responses to those related items. Higher scores equated to higher propensity toward sport anxiety or subscales. Smith, Smoll, Cumming, and Grossbard (2006) utilised Cronbach's alpha to test internal consistency of the total score from 15 questions - alpha = .91 (95% CI = .90–.92). Subscale reliability coefficients were .84 (CI = .82–.85) for Somatic, .89 (CI = .87–-.90) for Worry, and .84 (CI = .82–.85) for Concentration Disruption. Test-retest coefficients showed .76 for Somatic anxiety, .90 for Worry, .85 for Concentration Disruption, and .87 for the total score. Finally, correlations were observed between the SAS and SAS2 to ensure the same constructs were being measured in the updated questionnaire, total scores on the two scales correlated at .90. Cronbach's alpha within this study for the SAS2 was .82 and .88 for Somatic Anxiety and Worry, respectively. For the purpose of this study, only Somatic Anxiety and Worry subscales from the SAS2 were used for analysis.

Mental Readiness Form - 3 *(MRF3)*. The MRF3 is a shortened version of the Competitive State Anxiety Inventory-2 (Krane, 1994; Martens, Burton, Vealey, Bump, & Smith, 1990) to be used in an efficient manner immediately before a sporting event. The MRF3 uses an eleven-point Likert scale, asking participants to rate their response to each of the three questions. Anchor terms were used at either end of the scale for each question; *calm* and *worried* were used for the question assessing cognitive anxiety, *relaxed* and *tense* for somatic anxiety, and *confident* and *scared* for self-confidence. Krane (1994) stated the correlations between the MRF3 and Competitive State Anxiety Inventory-2 (Martens et al., 1990) to be 0.76 for cognitive anxiety, 0.69 for somatic anxiety, and 0.68 for self-confidence, which indicated satisfactory concurrent validity. For the purpose of this study, only the cognitive and somatic anxiety subscales from the MRF3 were used for analysis.

Procedures

Prior to participant recruitment and data collection, the project received institutional ethical approval by the University Research Ethics Committee in the United Kingdom. All data collection and contact with participants were conducted at university swimming competitions; thus, the first author initially approached team coaches and captains to ask for volunteer athletes to participate. These student-athletes were then approached, prior to competing. Questionnaires were completed together in the order: ERQ, SAS-2, and finally the MRF-3 within approximately 1 hour of the participant competing in their race. The order of completing the questionnaires was important because, first, the ERQ was designed to analyse the way emotions are dealt with in general terms, not specifically sporting circumstances. Therefore, the participants

completed the ERQ before the sport specific surveys to ensure they accurately fulfilled its requirements, without completing the questions in the same mindset as the other two sport-based measures. Finally, the MRF3 was designed to be completed as close to the competitive event as possible, thus the MRF3 was the final questionnaire completed. After participants completed the questionnaires, they were thanked and fully debriefed about the study's purposes.

Data Analysis

For each of six dependent measures, of trait anxiety (cognitive and somatic), state anxiety (cognitive and somatic), and emotion regulation (reappraisal and suppression), separate two-way analyses of variance (ANOVAs) were conducted. The two factors were the variable of primary interest, the group (swimmer-lifeguards or swimmer-non-lifeguards), and a potential confounder, gender (male or female). Interaction terms were incorporated to test whether gender modified the effect of group on each dependent measure. Analyses were conducted with an alpha level set at .05.

Results

For somatic trait anxiety, there was a significant effect of gender, F (1, 96) = 7.737, p = .007, η^2 = .08, with males (M = 2.14, SD = 0.61) significantly lower than females (M = 2.55, SD = 0.70). There was no significant main effect of group, F (1, 96) = 2.568, p = .11, η^2 = .03, but there was a significant interaction between group and gender, F (1, 96) = 5.214, p = .025, η^2 = .05, as male swimmer-lifeguards demonstrated lower somatic trait anxiety (M = 1.95, SD = 0.58) than male swimmer-non-lifeguards (M = 2.45, SD = 0.54), female swimmer-lifeguards (M = 2.60, SD = 0.80) and female swimmer-non-lifeguards (M = 2.51, SD = 0.62).

For cognitive trait anxiety, there was a significant effect for gender, F (1, 96) = 7.527, p =.007, η^2 = .07, with males' cognitive trait anxiety (M = 2.42, SD = 0.71) lower than females' (M = 2.88, SD = .077). There was also a significant effect of group, F (1, 96) = 6.16, p = .02, η^2 = .06 (see Table 1 for swimmer-lifeguard and swimmer-non-lifeguard scores). There were no significant interactions for cognitive trait anxiety, F (1, 96) = 0.703, p = 0.40, η^2 = .01.

For somatic state anxiety, there was a significant effect of group, F (1, 96) = 3.931, p = .05, η^2 = .04. No significant effect was shown for gender, F (1, 96) = 2.66, p = .12, η^2 = .03, and no interactions were observed for group and gender, F (1, 96) = 0.617, p = .43, η^2 = .006.

For cognitive state anxiety, there was a significant effect of group, F (1, 96) = 4.963, p = .03, η^2 = .05. There was no significant effect for gender, F (1, 96) = 2.050, p = 0.16, η^2 = .02, and no significant interactions of group and gender, F (1, 96) = 0.299, p = .59, η^2 = .05.

For reappraisal technique use, there was a significant gender effect, F (1, 96) = 6.748, p =.01, η^2 =.07 with males demonstrating significantly more (M = 4.63, SD = 0.73) than females (M = 4.24, SD = 0.71). There was no effect of group, F (1, 96) = 0.584, p =.45, η^2 = .01, and no interaction of group and gender, F (1, 96) = 0.312, p = .58, η^2 = .003.

For suppression technique use, there was no significant effect of group, F (1, 96) = 3.267, p = 0.07, η^2 = .03, no significant effect of gender, F (1, 96) = 0.197, p = .66, η^2 = .002 and no interaction of gender and group, F (1, 96) = 1.346, p = .25, η^2 = .01.

Table 1. Anxiety scale response means and standard deviations for swimmer-lifeguards and swimmer-non-lifeguards.

Dependent Measure	Swimmer-Lifeguard Score Mean (Standard Deviation)	Swimmer-Non-Lifeguard Mean (Standard Deviation)
Cognitive Trait Anxiety	2.43 (0.80)	2.87 (0.66)
Somatic Trait Anxiety	2.20 (0.74)	2.48 (0.58)
Cognitive State Anxiety	5.44 (2.65)	6.78 (2.66)
Somatic State Anxiety	5.39 (2.61)	6.63 (2.78)
Reappraisal	4.52 (0.77)	4.36 (0.71)
Suppression	5.16 (0.74)	4.88 (0.80)

Discussion

This research aimed to identify the level of trait and state anxiety of a swimmer-lifeguard in a stressful situation, as well as examining the emotion regulation strategies they used. Differences between swimmer-lifeguards and swimmer-non-lifeguards, after adjustment for gender differences, were also examined.

In summary, there were significant gender effects for trait anxiety, both cognitive and somatic, with lower levels in males than females, but no significant gender differences in state anxiety. Males also showed significantly more use of reappraisal technique than females. After adjustment for gender differences, there were significant effects of group for all four anxiety variables. In three cases – cognitive trait, cognitive state and somatic state – for males and females combined, swimmer-lifeguards displayed lower levels than swimmer-non-lifeguards. In one case – somatic trait – there was an interaction between group and gender (i.e., gender modified the effect of group), with male swimmer-lifeguards displaying lower levels than male swimmer-non-lifeguards, while female swimmer-lifeguards and swimmer-non-lifeguards had similar levels to each other and to male swimmer-non-lifeguards. After adjustment for gender differences, there were no significant differences between swimmer-lifeguards and swimmer-non-lifeguards regarding reappraisal or suppression.

The results from this study are novel since a dearth of prior research has investigated such qualities in lifeguards. There could be at least two explanations for swimmer-lifeguards displaying lower cognitive trait and state anxiety than swimmer-non-lifeguards. First, lifeguards may naturally display lower anxiety and are drawn to risky behaviours and activities because of thrill-seeking personality characteristics (Wismeijer & Gomà-i-Freixanet, 2012). Wismeijer and Gomà-i-Freixanet (2012) suggested that lifeguards are less likely to be predisposed to the effects of anxiety, similar to other 'risky' professions such as firefighters. Hence, those with lower trait anxiety may be more likely to undertake such a demanding role because they are more adept at coping with the cognitive anxiety. This could explain why the cognitive trait and cognitive state anxiety scores between the swimmer-lifeguards and swimmer-non-lifeguards are significantly different in this study, and other studies (Avramidou et al., 2007; Wismeijer & Gomà-i-Freixanet, 2012). Moreover, this explanation could apply to why swimmer-lifeguards displayed lower levels of somatic state anxiety than swimmer-non-lifeguards, as trait anxiety is positively correlated with state anxiety (e.g., Marchant, Morris, & Andersen, 1998; Williams & Krane, 1992). This links to the second explanation for the results, specifically for state anxiety, as the role and training of a lifeguard may incite an ability to maintain reduced anxiety in stressful situations, and these could then be translated onto other aspects of the lifeguard's life. These explanations require further investigation because the current study is the first (to our knowledge) that highlights these potential influences on a lifeguard's anxiety levels, and investigating the 'why' for this occurrence is beyond the scope of this research. Nevertheless, lower trait and state anxiety would be of benefit to lifeguards within their role to ensure they remain calm in stressful situations and to prevent them from jeopardizing the lives of patrons.

This effect of anxiety on performance has been illustrated in competitive sport using speculated threshold levels of anxiety in athletes (Woodman & Hardy, 2003). Fazey and Hardy (1988) developed this threshold concept in their catastrophe theory which detailed that small increases in anxiety can lead to minor changes in performance. This arousal encompasses the athletes' interpretations of the symptoms of anxiety and therefore could relate to their use of reappraisal and/or suppression techniques in response to these emotions. On application to lifeguards, this would include the way they interpreted the anxiety experienced during an emergency and thusly how they regulated their emotions. The swimmer-lifeguards in the current study displayed lower levels of cognitive and somatic state anxiety and cognitive trait anxiety than the swimmer-non-lifeguards. Due to their experiences in their role, the swimmer-lifeguard participants could have had more understanding of how to interpret their anxiety in a facilitative manner, as they are used to dealing with anxiety-provoking situations (Avramidou et al., 2007), and therefore need to utilise their anxiety to reach optimal performance. This could explain why the swimmer-lifeguards displayed these significantly different levels of state and trait anxiety as they

understood how to control it in stressful situations. This links to conclusions drawn by Wismeijer and Gomà-i-Freixanet (2012) as the lifeguarding role would require someone capable of dealing with emergencies involving human life, and be able to control their anxiety about the situation. Therefore it is possible the lifeguarding role attracts certain people who have particular personality qualities that facilitate high performance under pressure.

Anxiety amongst lifeguards has been demonstrated in research by Griffiths (2013) who utilised 839 lifeguards in an online survey about the 'internal noise' they experienced whilst on duty. They defined internal noise as "thoughts and emotions that distract an individual from a task" (Griffiths, 2013, p.1). Amongst the most common responses, 37% of lifeguards reported experiencing feelings of cognitive dissonance, such as anxiety and worry whilst on duty. Moreover, many reported they were concerned about identifying an individual requiring assistance, performing a rescue and letting people down. This internal noise can have detrimental effects to the lifeguards' ability to perform a rescue, influencing their level of doubt and hesitation which could ultimately affect the chances of survival for those in need (Griffiths, 2013). In relation to the current results, the swimmer-lifeguards may have been able to deal with this 'internal noise' and therefore cope with the anxious situation. However, as the role of a lifeguard involves high stress situations and often being on the front line of rescue and human emotion, it is important that lifeguards are given effective training to deal with this likely occurrence within their job.

The results of the emotion regulation techniques in this study indicated no difference between males and females overall suppression use. This is in contrast to other research which has suggested that due to masculinity being associated with inhibiting emotional expression, men should in theory display more suppression than women, and indeed this has been shown in prior research from other countries; United States (Gross & John, 2003); Italy (Balzarotti, John, & Gross, 2010); and Germany (Abler & Kessler, 2009). John and Eng (2014) explained that reappraisal and suppression are two separate entities and they are not necessarily linked. However, it is unusual to see that in the current results males displayed more reappraisal, as this indicates they altered the way they thought about the emotion-eliciting situation to make it less emotionally impactful, as this strategy is more common in females (Gross & John, 2003).

Previous research on lifeguards has not focused on emotion regulation techniques, implying that current presumptions about lifeguard emotions are based on unsupported theories, as opposed to evidence-based findings. As a result of this research, organisations employing lifeguards should take into account ways in which their staff will cope with anxieties and general emotions whilst on duty. More information should be provided within the lifeguard training processes, covering emotion regulation and management of anxieties

when employed as a lifeguard and most importantly when dealing with the psychological effects of an incident.

Limitations

One limitation of the current research may have been the effect of social desirability bias on the survey responses during data collection. The participants were often sitting with their teammates whilst completing the surveys, therefore, it was difficult to control for collusion on responses and social desirability issues (King & Bruner, 2000). A final limitation was that the ERQ Cronbach's alpha score for the current sample was different from the original score (Gross & John, 2003), indicating low internal consistency of this survey within this research. An explanation may be that the original sample in the Gross and John (2003) study consisted of individuals from the United States, therefore, cultural or language differences could have affected the current participant responses who were from the United Kingdom. Further, there was no indication of the circumstances in which the participants of Gross and John (2003) completed the survey, therefore, the real-life precompetitive situation of the current participants could have influenced the way they interpreted the questions, and how quickly they completed the survey to continue with their competition preparations.

Future Research and Implications

Future research should build on the current findings and explore in more depth the reasons for swimmer-lifeguards displaying lower levels of cognitive and somatic state anxiety and cognitive trait anxiety than swimmer-non-lifeguards. Specifically analysing use of mental skills, such as reframing or refocusing (Davis, Davis, Wills, Appleby, & Nieuwenhuys, 2018), in their emotion regulation, and understanding the surrounding influencers to this, i.e. the lifeguard's natural predisposition and ability to cope with anxiety (Avramidou et al., 2007; Wismeijer & Gomà-i-Freixanet, 2012), or the lifeguard training process as a factor in influencing their anxiety in real-life stressful situations. In relation to the lifeguard training process, this research identifies a difference between swimmer-lifeguards and swimmer-non-lifeguards in their emotional responses to an anxious situation. Thus, trainers and managers of lifeguards should consider additional support and guidance for lifeguards to properly manage their anxieties within their role, maintain their health, and the safe supervision of patrons.

Conclusion

In conclusion, the results of the present study support the main expectation that swimmer-lifeguards would have lower trait and state anxiety than swimmer-non-lifeguards. The research in this study adds to the existing literature by differentiating between genders and groups (swimmer-lifeguards vs. swimmer-non-lifeguards) to instigate future research linked to anxiety and emotion regulation. By identifying swimmer-lifeguards as having differing responses to

swimmer-non-lifeguards in a real-life stressful situation, there may be a common factor or characteristic amongst those taking up the lifeguarding profession. Further research should clarify this, but as conclusions from Wismeijer and Gomà-i-Freixanet (2012) have also indicated this possibility, it is interesting to note the similarity between the results. Finally, as there was no significant difference in emotion regulation techniques used between swimmer-lifeguards and swimmer-non-lifeguards, more research is needed to ensure that lifeguards manage their emotions effectively due to their role incurring periods of heightened anxiety.

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