

1 Running title: PERCEIVED AND RECEIVED SUPPORT

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8 The Effects of Perceived and Received Support on Self-Confidence

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## Abstract

1  
2 A sample of 222 university athletes, mean age 19.84 years ( $s=1.97$  years), ranging in  
3 standard from university 2nd team to international level, completed a measure of  
4 perceived support two weeks prior to an important competition/match. On the day  
5 before the competition/match, the athletes completed measures of stressors, stress,  
6 received support, and self-confidence. Moderated hierarchical regression analyses  
7 revealed the following key findings: a) main effects for both perceived ( $\Delta R^2=0.11$ ) and  
8 received support ( $\Delta R^2=0.14$ ) upon self-confidence; b) stress-buffering effects for both  
9 perceived ( $\Delta R^2=0.02$ ) and received ( $\Delta R^2=0.07$ ) support upon self-confidence; c) when  
10 both aspects of support were considered simultaneously, stress-buffering effects were  
11 primarily attributable to the influence of received support. These results demonstrate the  
12 beneficial impact of social support on self-confidence, both directly and by reducing the  
13 negative effect of stress on self-confidence. The findings emphasise the need to  
14 recognise the distinction between perceived and received support, both in terms of  
15 theory and the design of social support interventions with athletes.  
16

## 1 The Effects of Perceived and Received Support on Self-Confidence

2 Athletes have been encouraged to harness social support as a useful resource  
3 (Richman *et al.*, 1989) and there is now increasing research interest into the beneficial  
4 effects of social support in sport. Sarason *et al.* (1990) proposed that social support  
5 might affect various aspects of sports performance, and recently researchers have  
6 demonstrated links with Olympic performance (e.g., Gould *et al.*, 2002) and  
7 performance-related factors in tennis (e.g., Rees and Hardy, 2004). The purpose of the  
8 present study was to extend previous research into the effects of social support in a  
9 performance context and to address the recommendation (Rees and Hardy, 2004) that  
10 research be undertaken in various contexts using different outcome measures. This study  
11 therefore examined the effects of different aspects of social support upon self-  
12 confidence in a sample of high-level athletes from a range of sports. Self-confidence is a  
13 key variable in relation to sports performance (Woodman and Hardy, 2003), for which  
14 social support has been highlighted as an important source (Vealey *et al.*, 1998). For  
15 example, according to Vealey *et al.* (1998) encouragement and positive feedback from  
16 significant others are sources beneficial for self-confidence, although there is little  
17 empirical evidence to support this link.

18 The present study also addresses the recommendation of Bianco and Eklund  
19 (2001) to incorporate measures of *perceived* and *received* support in the same study.  
20 Perceived and received support are distinct constructs, typically sharing as little as 20%  
21 common variance (e.g., Cohen and Hoberman, 1983; Komproe *et al.*, 1997; Goodwin *et*  
22 *al.*, 2004). The distinction between perceived and received support may be an important  
23 consideration for sport psychologists and coaches working with athletes. For example,

1 for an athlete in a performance slump, the knowledge that someone is available to  
2 provide help if it is needed may be enough to pull the athlete out of the slump without  
3 actually receiving support (Sarason *et al.*, 1990). Research should, therefore, examine  
4 the differential impact of both perceived and received support, in order to see whether  
5 one type of support exerts a greater influence upon outcomes.

6         Lakey and Cohen (2000) outlined three key theoretical perspectives in research  
7 on social support: the stress and coping perspective, the social constructionist  
8 perspective and the relationship perspective. Within each perspective, different types of  
9 support and operational mechanisms are emphasised. There is, therefore, no definitive  
10 understanding of how different types of support operate. There are, however, two  
11 principal models that explain how social support affects outcomes (for reviews, see  
12 Cohen and Wills, 1985; Cohen *et al.*, 2000): the stress-buffering model and the main  
13 effect model. In its basic form, the stress-buffering model suggests that support protects  
14 people from the harmful effects of stress upon outcomes. The main effect model  
15 suggests that social support has a beneficial effect upon outcomes irrespective of levels  
16 of stress.

17         Bianco and Eklund (2001) suggested that perceived support is primarily  
18 associated with the main effect model and that received support is primarily associated  
19 with the stress-buffering model. This suggestion is congruent with the views of some  
20 researchers in general social psychology (e.g., Dunkel-Schetter and Bennett, 1990).  
21 Perceived support may operate through a psychological or cognitive pathway, whereby  
22 individuals with high perceived support are less likely to view events as stressful  
23 compared to individuals with low perceived support. Received support may operate

1 through a transactional process as a coping resource that reduces the negative effect of  
2 stress.

3         The empirical evidence provides a contrary view. Stress-buffering effects have  
4 been consistently observed with perceived support, whereas there has been only limited  
5 evidence for stress-buffering effects of received support (for a review, see Cohen and  
6 Wills, 1985). Furthermore, perceived support is more consistently related to outcome  
7 variables than received support (Cohen and Hoberman, 1983; Wethington and Kessler,  
8 1986; Helgeson, 1993). Dunkel-Schetter and Bennett (1990) offered two potential  
9 explanations for this lack of effects for received support. First, the context of received  
10 support has often been ignored. In other words, measures of support are seldom relevant  
11 to the specific population under investigation. Second, measures of support, stress, and  
12 outcomes have not been similar in their level of specificity. For example, if specific  
13 stressful situations are assessed, a global measure of support may not match the specific  
14 support needs created by such situations. These issues were addressed in the present  
15 study.

16         There are a number of potential stress-buffering mechanisms of social support  
17 (Cohen and Wills, 1985). As depicted in Figure 1, perceived and received support may  
18 intervene at specific points along the pathway from encountering stressors, through  
19 experiencing stress, to subsequent outcomes such as self-confidence. Perceived support  
20 is hypothesised to intervene when a stressor is encountered, leading it to be appraised as  
21 less stressful (Cohen and Wills, 1985; Cohen *et al.*, 2000). The perception that others are  
22 available to help may redefine the threat posed by a stressor, alter an individual's  
23 perceptions of his/her available resources to cope, or lead an individual to feel more in

1 control, which could all prevent a stressor from being appraised as highly stressful  
2 (Cohen and Wills, 1985; Schwarzer and Leppin, 1991). Once stress is experienced,  
3 however, both perceived and received support may intervene, such that support might  
4 reduce or eliminate the negative effect of the stress on self-confidence (Cohen and  
5 Wills, 1985; Cohen *et al.*, 2000). The perception that others are available to provide help  
6 and assistance may reduce or alter the affective reaction, physiological response, or  
7 behavioural response to the stressful event (Cohen *et al.*, 2000). The receipt of support  
8 may reduce the impact of stress appraisal by decreasing the perceived importance of the  
9 problem, by leading to improved coping, or by providing a distraction from, or a  
10 solution to, the problem (Cohen *et al.*, 2000).

11 With regard to the left hand side of Figure 1, there is a lack of consensus as to  
12 whether this should be tested as a main effect (i.e., perceived support leads to less stress)  
13 or a buffer effect (i.e., when encountering stressors, those with high levels of perceived  
14 support experience less stress compared with those with low levels of perceived support)  
15 (Cohen and Wills, 1985; Kahn and Byosiére, 1992; Lakey and Cohen, 2000; Bianco and  
16 Eklund, 2001). A main effect would be demonstrated if perceived support was  
17 significantly associated with less stress independent of stressors; a buffering effect  
18 would be demonstrated if the interaction term of stressors and perceived support was  
19 significantly associated with less stress. The normal procedure for testing stress-  
20 buffering effects is moderated hierarchical regression analysis (Cohen and Wills, 1985;  
21 Jaccard *et al.*, 1990; Biddle *et al.*, 2001), which incorporates tests for main effects of  
22 social support and interactions of stressors/stress and social support (stress-buffering).  
23 This is the procedure we followed in the present study. We were therefore able to test

1 for main and interactive effects in all models. The following models and hypotheses  
2 were specified for this study.

3 *Model 1: Stressors and perceived support upon stress.*

4 It was hypothesised that stressors would be associated with increases in stress.  
5 Perceived support would be associated with decreases in stress. An interactive effect  
6 would be explained in terms of stress-buffering and would be demonstrated by the  
7 following: the detrimental effect of stressors on stress would be reduced for those with  
8 high perceived support compared to those with low perceived support.

9 *Model 2: Stress and perceived support upon self-confidence.*

10 *Model 3: Stress and received support upon self-confidence.*

11 *Model 4: Stress and both perceived and received support (entered*  
12 *simultaneously) on self-confidence*

13 For models 2-4, it was hypothesised that stress would be associated with  
14 decreases in self-confidence. Perceived and received support would be associated with  
15 increases in self-confidence. Interactive effects would be explained in terms of stress-  
16 buffering and would be demonstrated by the following: the detrimental effect of stress  
17 on self-confidence would be reduced for those with high perceived and received support  
18 compared to those with low perceived and received support. Models 2 and 3 allowed the  
19 effects of perceived and received support to be considered separately, so that the results  
20 could be compared to previous research that has assessed only one type of support.  
21 Model 4 allowed the effects to be considered simultaneously, thereby offering the  
22 opportunity to examine whether one type of support was of greater influence in relation  
23 to self-confidence.

1           Prior to testing main effect and stress-buffering models, Rees and Hardy (2004)  
2 constructed and refined their measurement of the key social support variables. The  
3 purpose of this was to ensure context-specific and accurate measurement of social  
4 support, not to develop and validate a scale. This same strategy was used in the present  
5 study, and follows two recommendations from the social support literature: a) social  
6 support measures should be relevant to the situational context in which they are being  
7 used; and b) social support researchers should write new items to capture specific  
8 aspects of the support needs of the target population (House and Kahn, 1985; Wills and  
9 Shinar, 2000; Bianco and Eklund, 2001). This is akin to the measurement strategy  
10 within self-efficacy research (Bandura, 1997), for which it has been argued a “one-  
11 measure-fits-all” approach has only limited explanatory and predictive value.  
12 Furthermore, because of problematic issues of construct validity and content relevance  
13 in sport of the many existing social support measures (Rees and Hardy, 2000; Rees *et*  
14 *al.*, 2000), measurement in the present study was guided by the insights of high-level  
15 performers regarding their experiences of social support (Rees and Hardy, 2000).

16           An important consideration when testing for main and stress-buffering effects of  
17 social support is whether to employ aggregate or more differentiated measures of the  
18 key variables. Viswesvaran *et al.* (1999) advocated the use of aggregate measures of  
19 stressors, stress, and support in order to best illustrate how social support works. Kahn  
20 and Byosiere (1992) suggested that research should deal with combinations of stressors.  
21 Cohen and Wills (1985) noted that although social support may be broken down into  
22 specific dimensions conceptually, in naturalistic settings the dimensions are not usually  
23 very independent. In this study, we employed aggregate measures of stressors, stress,



1 perceived support and received support. This helps to reduce the risk of Type I errors, as  
2 well as aiding clarity, affording a primary focus upon differences between perceived and  
3 received support.

#### 4 Method

##### 5 *Participants*

6 Participants were 222 university athletes (120 males, 102 females), mean age  
7 19.84 years ( $s=1.97$  years), in team ( $n=157$ ) and individual ( $n=65$ ) sports. All  
8 participants were involved in the knockout stages of the British Universities Sports  
9 Association (BUSA) competition. The competitive standard of participants included  
10 international ( $n=17$ ), national ( $n=31$ ), county/regional ( $n=116$ ), university 1st team  
11 ( $n=36$ ), and university 2nd team ( $n=22$ ). The study was approved by an institutional  
12 ethics review committee, and participants provided informed consent.

##### 13 *Procedures*

14 Two weeks prior to an important competition/match (first round of the knockout  
15 stages of the BUSA competition), participants completed a measure of perceived  
16 support. On the day before the competition/match, participants completed measures of  
17 stressors, stress, received support and self-confidence in relation to the upcoming  
18 competition/match.

##### 19 *Measures*

20 *Perceived support.* Perceived support was assessed with a nine-item measure  
21 constructed specifically for this study. The items represented two dimensions of support  
22 (emotional, esteem) identified by Rees and Hardy (2000) in a study into the social  
23 support experiences of high-level sportspeople. Emotional and esteem support have

1 been shown to buffer the effects of a wide range of stressful events (Cohen and Wills,  
2 1985), and were deemed to best match the needs elicited by the stressors in this study.  
3 The measure asked, “To what extent do you have someone . . . ,” and participants  
4 responded on a 5-point Likert scale ranging from 1 (not at all) to 5 (a lot). There were  
5 four emotional support items (e.g., who talks things through with you) and five esteem  
6 support items (e.g., who encourages you). Confirmatory factor analysis (Jöreskog and  
7 Sörbom, 1993) of the two-factor model using the data in the present study revealed a  
8 good model fit (cf. Hu and Bentler, 1999:  $\chi^2(26)=54.60$ ,  $P=0.00$ ; RMSEA=0.07;  
9 SRMR=0.04; CFI=0.96; NNFI=0.95). Cronbach’s alpha internal reliability coefficients  
10 for the two subscales were 0.78 and 0.81. The correlation between the two subscales  
11 was substantial ( $r=0.76$ ,  $P<0.05$ ). Correlations of this magnitude have been noted with  
12 other social support measures (see, e.g., Brookings and Bolton, 1988). This correlation  
13 lends support to summing the subscales to create a total perceived support score, which  
14 was used for all subsequent analyses. The Cronbach’s alpha internal reliability  
15 coefficient for this total score was 0.88.

16 *Stressors.* Stressors were measured by way of three examples drawn from the  
17 literature on sources of stress in sport (e.g., Scanlan *et al.*, 1991; Gould *et al.*, 1993;  
18 Noblet and Gifford, 2002). Chosen for their relevance to university athletes and their  
19 potential to apply to a range of sports, the stressors were: personal problems,  
20 expectations from others, and difficulty balancing sport and study commitments. The  
21 measure asked, “Please indicate to what extent you have encountered these situations  
22 over the past two weeks . . . ,” and participants responded on a 5-point Likert scale  
23 ranging from 1 (not at all) to 5 (a lot). Confirmatory factor analysis was not conducted

1 on the three stressor items, because they were chosen to assess different sources of  
2 stress. They were not, therefore, intended to form a single-factor model. The items were,  
3 however, summed to create a total score for stressors. This served to reduce the number  
4 of models to be tested and aided clarity, but should not be interpreted as evidence that  
5 the stressors measure the same underlying construct.

6         *Stress.* Although stressors produce stress in many people, individual differences  
7 in the degree of reaction are normally evident (Lazarus and Folkman, 1984). Participants  
8 were therefore asked to indicate the stress they had experienced resulting from the  
9 stressors. The measure asked “Please indicate how stressed you have felt as a result of  
10 the following situations over the past two weeks . . . ,” and participants responded on a  
11 5-point Likert scale ranging from 1 (not at all) to 5 (a lot). The items were summed to  
12 create a total score for stress.

13         *Received support.* Received support was assessed using the same nine items  
14 included in the perceived support measure. To reflect received support, items were  
15 reworded to be in the perfect tense and participants were asked to rate the extent to  
16 which they had received those types of support in the past two weeks. The measure  
17 asked, “In the past two weeks, to what extent has someone . . . ,” and participants  
18 responded on a 5-point Likert scale ranging from 1 (not at all) to 5 (a lot). Barrera  
19 (1986) suggested that it could be argued that self-report scales of received support are  
20 actually assessing “perceived-received support” (p. 417), because they rely on the  
21 retrospective evaluations of the participants. The alternative method of measuring  
22 received support is behavioural observation. However, Burleson and MacGeorge (2002)  
23 have highlighted the practical difficulties associated with attempting to observe the

1 support transactions of a large number of participants in real world settings. More  
2 importantly, behavioural observation fails to represent the individual's perception of  
3 whether helping behaviour is regarded as supportive (Burlison and MacGeorge, 2002).  
4 Confirmatory factor analysis of the two-factor model using data in the present study  
5 revealed a reasonably good fit (cf. Hu and Bentler, 1999:  $\chi^2(26)=58.80$ ,  $P=0.00$ ;  
6 RMSEA=0.07; SRMR=0.04; CFI=0.96; NNFI=0.94). Cronbach's alpha internal  
7 reliability coefficients for the two subscales were 0.72 and 0.84. As with the perceived  
8 support measure, the correlation between the subscales was substantial ( $r=0.73$ ,  
9  $P<0.05$ ). The two subscales were summed to create a total received support score, which  
10 was used for all subsequent analyses. The Cronbach's alpha internal reliability  
11 coefficient for this total score was 0.87.

12 *Self-Confidence.* Self-confidence was assessed using the scale from the revised  
13 version of the Competitive State Anxiety Inventory-2 (CSAI-2R) (Cox *et al.*, 2003). The  
14 self-confidence scale in the CSAI-2R has five items, and participants respond on a 4-  
15 point Likert scale ranging from 1 (not at all) to 4 (very much so) to statements about  
16 how confident they feel right now about an upcoming competition. Sample items  
17 included "I'm confident I can meet the challenge" and "I'm confident about performing  
18 well." Confirmatory factor analysis of the one-factor model using the data in the present  
19 study revealed a good fit (cf. Hu and Bentler, 1999:  $\chi^2(5)=8.60$ ,  $P=0.13$ ; RMSEA=0.06;  
20 SRMR=0.03; CFI=0.99; NNFI=0.98). The Cronbach's alpha internal reliability  
21 coefficient for the scale in the present study was 0.81.

22 *Analyses*





1           The results suggest that both perceived and received support were associated  
2 with main and stress-buffering effects upon self-confidence, but that when entered  
3 simultaneously, it was primarily received support that contributed to stress-buffering.  
4 There was no evidence for perceived support leading to stressors being appraised as less  
5 stressful. The results provide evidence of the beneficial effects of social support upon  
6 self-confidence and provide partial support for the buffering effects of perceived and  
7 received support represented in Figure 1.

8           The graph displaying the interaction between stress and perceived support upon  
9 self-confidence demonstrates that the detrimental effect of stress upon self-confidence  
10 was partially reduced for those with high perceived support compared to those with low  
11 perceived support (cf. Cohen and Wills, 1985). Similarly, the graph displaying the  
12 interaction between stress and received support upon self-confidence demonstrates that  
13 the detrimental effect of stress upon self-confidence was partially reduced for those with  
14 high received support compared to those with low received support (cf. Cohen and  
15 Wills, 1985). The stress-buffering effect of perceived support has been noted in previous  
16 research in both sport psychology (Rees and Hardy, 2004) and general social  
17 psychology (Cohen and Wills, 1985). Empirical evidence for the stress-buffering effect  
18 of received support has, however, been mixed, with some studies finding effects, others  
19 finding no effects, and some even finding effects in the opposite direction (Cohen and  
20 Wills, 1985; Barrera, 1986; Dunkel-Schetter and Bennett, 1990). It may be easier to  
21 detect stress-buffering effects when received support and outcomes are measured  
22 simultaneously, as they were in the present study. The nature and time-frame of the  
23 variables assessed might also help to explain the generally beneficial effects found for

1 received support. Jacobson (1986) noted that because stressful situations unfold over  
2 time, support needs may also change. According to Jacobson, emotional support should  
3 be most effective during the onset of stressful situations, whereas informational and  
4 tangible support should be most effective when stressful situations persist. The present  
5 study examined the stressful situations encountered “over the past two weeks” and only  
6 assessed emotional and esteem support. Significant effects for received support may  
7 therefore have been found because the dimensions of support matched the needs elicited  
8 by the stressful events at this particular point in time. Finally, discussing the general  
9 social psychology literature, Dunkel-Schetter and Bennett (1990) suggested two  
10 potential reasons for the inconsistent findings for received support that were satisfied in  
11 the present study. First, by using sport-specific measures of support, attention was paid  
12 to the context in which support was received. Second, the measures of stress and support  
13 were comparable in their level of specificity.

14         Some researchers have noted a need for research that examines the effects of  
15 both perceived and received support within the same study, hypothesising that buffering  
16 effects would be more likely for received support, whilst perceived support would be  
17 associated with main effects (e.g., Dunkel-Schetter and Bennett, 1990; Bianco and  
18 Eklund, 2001). In the present study, when we tested a model with perceived and  
19 received support entered simultaneously, both types of support were associated with  
20 main effects upon self-confidence, but it was primarily received support that contributed  
21 to the stress-buffering effect upon self-confidence. It may be that although perceived  
22 support can buffer the negative effect of stress up to a point, if the situation remains



1 unresolved an individual may actually need to receive support to cope with the ongoing  
2 demands.

3         Although there was no evidence for perceived support leading to stressors being  
4 appraised as less stressful, it may be that perceived support does not directly influence  
5 the relationship between stressors and stress, but rather operates by influencing an  
6 individual's cognitive appraisal process. Schwarzer and Leppin (1991) suggested that  
7 support might influence the cognitive appraisal process through altering an individual's  
8 perceptions of his/her available resources to cope, or by leading an individual to feel  
9 more in control. This could then lead to appraising the situation as less of a threat and/or  
10 more of a challenge (Folkman and Lazarus, 1985). Challenge and threat appraisals are  
11 themselves both forms of stress (Lazarus and Folkman, 1984; Lazarus, 2000). Perceived  
12 support might, therefore, have been associated with the more specific appraisals of  
13 challenge and threat, even though it was not associated with the less differentiated stress  
14 measure we used in the present study. Relatively few studies have examined the  
15 influence of social support on cognitive appraisal and a greater understanding of these  
16 links would be an important contribution to the social support literature (Lakey and  
17 Cohen, 2000).

18         The present study has important implications for social support interventions  
19 aimed at increasing self-confidence. The results suggest that emotional and esteem  
20 support are associated with beneficial effects upon self-confidence, but that the  
21 distinction between perceived and received support needs to be recognised. The main  
22 effects imply that both perceived and received support should be increased irrespective  
23 of the stress an athlete is under. The stress-buffering effects imply that, although for

1 those under stress both perceived and received support might be increased, the emphasis  
2 should be on increasing the support athletes actually receive. Items from the support  
3 measures used in the present study provide examples of specific forms of emotional and  
4 esteem support that athletes may find useful. Emotional support includes aspects such as  
5 having someone “who listens to your concerns,” “is always there for you,” “talks things  
6 through with you,” and “helps take your mind off things.” Esteem support includes  
7 aspects such as having someone “who reinforces the positives,” “boosts your  
8 confidence,” “believes in you,” “encourages you,” and “lifts your morale.” Richman *et*  
9 *al.* (1989) also suggested a number of other specific strategies, such as arranging social  
10 events away from the sporting environment, providing athletes with communication  
11 training, encouraging athletes to be proactive in both using and providing social support  
12 and coaches having an open door policy, so that they are available to provide help to  
13 athletes when required.

14         Some potential limitations of the present study should be noted. First, due to the  
15 correlational nature of the study, it is important to note that no causal relationships can  
16 be inferred from the data. For example, a correlation between received support and self-  
17 confidence may indicate that self-confident individuals feel they receive greater support,  
18 rather than the receipt of support leading to higher self-confidence. Second, Gardner *et*  
19 *al.* (1998) noted that a major concern with self-report research is that any empirical  
20 demonstration of a relationship between two variables can be attributed, at least in part,  
21 to shared method variance. For example, negative affectivity (Watson and Pennebaker,  
22 1989), social desirability, or individuals avoiding extreme responses, might have led to  
23 inflated relationships (Cohen *et al.*, 1997) between the variables of interest in this study.

1 Shared method variance is a valid concern for the main effects reported in this study. It  
2 seems very unlikely, however, that shared method variance could account for the  
3 interactions (stress-buffering effects). The interactions demonstrated that individuals  
4 responded differently under high stress conditions than under low stress conditions.  
5 Equally, of those reporting high levels of stress, some individuals reported high self-  
6 confidence, while others reported low self-confidence. Effects were therefore due to  
7 content and not method. Third, the timing of the administration of the perceived and  
8 received support measures may be a concern. Perceived support was assessed two weeks  
9 prior to the assessment of received support. Received support was assessed two weeks  
10 later, because stress-buffering effects of received support are likely to occur as a result  
11 of support being mobilised in response to the stress arising from a stressful situation  
12 (Gore, 1985). Perceived support, on the other hand, has been shown to be relatively  
13 stable over time (Sarason *et al.*, 1986), suggesting that the timing of its assessment is  
14 less critical. Nonetheless, received support may appear to have been a more important  
15 stress-buffer than perceived support, simply because it was assessed at the same time as  
16 the self-confidence measure.

17 Finally, although self-confidence was assessed in relation to an upcoming event,  
18 performance was not assessed. In general social psychology, self-efficacy has been  
19 found to mediate the relationship between social support and adaptive outcomes  
20 (Duncan and McAuley, 1993). In future researchers could therefore examine if the  
21 social support-performance relationship is mediated by self-confidence or other  
22 psychological states (Cohen *et al.*, 2000). This assessment would help to identify the

- 1 mechanisms via which perceived and received support exert their effects in a
- 2 performance context (e.g., see Lakey and Cohen, 2000).
- 3

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1 Table 1

2 *Mean±s and Intercorrelations of Stressors, Stress, Perceived Support, Received*

3 *Support, and Self-Confidence.*

4

	Mean±s	1	2	3	4
1. Stressors	2.70±.75				
2. Stress	2.49±.83	.77*			
3. Perceived Support	3.63±.65	-.06	-.05		
4. Received Support	3.18±.70	.04	.03	.46*	
5. Self-Confidence	2.60±.63	-.14*	-.27*	.34*	.36*

5

6 *Note.* \* denotes correlation significant at 0.05 level (2-tailed)

7

1 Table 2

2 *Moderated Hierarchical Regression Analyses.*

3

Dependent Variable	Step	Independent Variable	$R^2$	$\Delta R^{2a}$	$P(F)^b$	$b^c$	$p(t)^d$
Stress	1	Stressors	.60	.60	.00	.64	.00
	2	Perceived Support	.60	.00	.93	.00	.97
	3	Product	.60	.00	.16	-.05	.16
Self-Confidence	1	Stress	.07	.07	.00	-.15	.00
	2	Perceived Support	.18	.11	.00	.20	.00
	3	Product	.20	.02	.04	.08	.04
Self-Confidence	1	Stress	.07	.07	.00	-.83	.00
	2	Received Support	.21	.14	.00	.22	.00
	3	Product	.28	.07	.00	.21	.00
Self-Confidence	1	Stress	.07	.07	.00	-.92	.00
	2	Perceived Support	.24	.17	.00	.12	.00
		Received Support				.16	.00
	3	Stress*Perceived Support	.31	.07	.00	-.04	.37
	Stress*Received Support				.24	.00	

4

5 *Note.*  $n=222$ . All variables standardised except for Product. Product formed from the two preceding (standardised) variables.6 <sup>a</sup>Stepwise change in  $R^2$ . <sup>b</sup>Probability of  $F$  for  $\Delta R^2$ . <sup>c</sup>Unstandardised regression coefficient in final equation. <sup>d</sup>Probability of  $t$  for  $b$ .

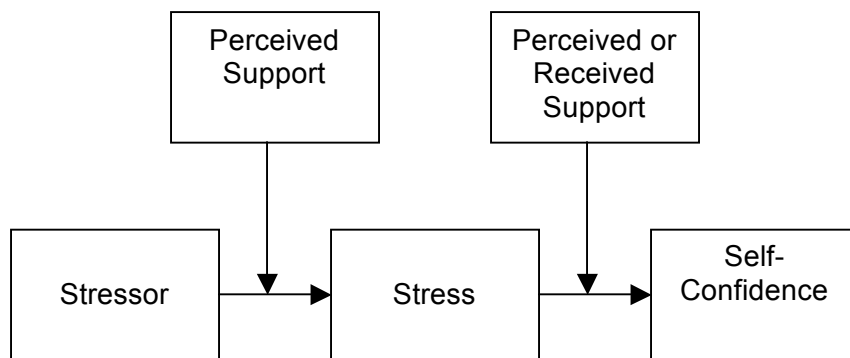
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## Figure Caption

2 *Figure 1.* The potential influence of perceived and received support on self-confide

3 (adapted from Cohen and Wills, 1985; Cohen *et al.*, 2000).



- 1 Figure Caption
- 2 *Figure 2.* Interaction of Stress and Perceived Support predicting Self-Confidence.
- 3 Interaction of Stress and Received Support predicting Self-Confidence.



