Gender differences in coping strategies of undergraduate students and their impact on self-esteem and attainment

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ABSTRACT This study sought to investigate differences in the coping strategies adopted by male and female first year students in a higher education environment and the extent to which such strategies had an impact on self-esteem and attainment. Results revealed significant differences between males and females in terms of engagement in coping strategies and academic attainment. Specifically, males exhibited greater ability to detach themselves from the emotions of a situation, were more inclined to demonstrate emotional inhibition or 'bottling up' of emotions and reported higher self-esteem. In addition, it was observed that females attained at a significantly higher level than males. Practical implications and recommendations for future research are identified.
KEYWORDS: *coping styles, emotional control, rehearsal, self-esteem*

Introduction

The transition from post 16 to higher education for many students is a stressful experience as they struggle to cope with an array of changing situations including: movement away from home, change of peer group and the establishment of new friendships. Whilst for most this transition occurs naturally with limited interruptions to learning, for others, the transition

is more stressful requiring the adoption of strategies specifically aimed towards coping with the changing situation.

Coping represents an individual's cognitive, affective and behavioural efforts to manage specific external and/or internal demands (Crocker et al., 1998; Lazarus, 1999). Specifically, it can be defined as the 'conscious, rational way of dealing with the anxieties of life' (Reber, 1985: 158) and is reflected in the self-protection strategies adopted by the individual (Kashden et al., 2006). Effective application of such strategies allows the individual to 'resolve problems, relieve emotional distress, and stay on track towards achieving their goals' (Brown et al., 2005: 792). Ineffective application may result in 'subtle avoidance or suppressed behaviour' (Kashden et al., 2006: 1301).

Models of coping identify two distinct categories based on the intention and function of coping efforts: problem focused and emotion focused (Lazarus and Folkman, 1984). Problem focused coping refers to cognitive and behavioural efforts used to change the problem, and includes such strategies as problem solving, planning and effort (Holt et al., 2005). Therefore the focus is towards the successful completion of the given task. Emotion focused coping involves strategies that help control emotional arousal and distress that are caused by the stressor without addressing the problem (Crocker et al., 1998), and includes avoidance, detachment and suppression (Kashden et al., 2006). The ability of the individual to adopt appropriate coping strategies impacts upon their overall performance and consequently their level of attainment (Brown et al., 2005). More explicitly where coping is ineffective, performance is adversely affected and 'coping strategies can either buffer or aggravate these adverse effects, depending upon the tactics used' (Brown et al., 2005: 797).

Gender differences in the selection of coping strategies have been identified, with males adopting more problem focused strategies and females adopting a more emotion focused approach (Ptacek et al., 1994). Gender differences in terms of attainment have also been established. Smith and Naylor (2001) found that 53.3 per cent of females who left universities in 1993 obtained good degrees compared to only 45 per cent of males. In addition, it has been shown that girls value academic success and that being too successful at school could disadvantage some boys among their peers (Tinklin et al., 2001). Further, Tinklin (2003) suggests that females take education more seriously and tend to be better prepared, more conscientious, cooperative, organized and respectful. Males in contrast, are seen as ill prepared, competitive, disruptive, overconfident and less attentive (Clark and Trafford, 1996; Warrington et al., 2000).

Links have also been established between coping strategies and self-esteem, both of which have the potential to impact upon the well being of

the individual (Lane et al., 2002; Rector and Roger, 1996). Further, it has been suggested that low self-esteem may lead to performance deficits, negative mood states and motivational deficits, which in turn lead to a reduction in the exercise of adaptive problem-orientated coping and the relative infrequent opportunity to gain successes and bolster self-esteem (Ader et al., 1991). Self-esteem may also influence coping responses that seek to deal with or avoid stressors. Avoidance generates negative self-evaluations owing to the inherently undesirable qualities of this behaviour, which create bad feelings and failure to obtain personal growth (Bednar et al., 1989). The preoccupation with emotional upset may inhibit individuals with low self-esteem from engaging in assertive and adaptive coping behaviours to combat stress.

Whilst the concepts identified above have been assessed within a higher education context this has taken place in relative isolation, thus there is a shortage of literature regarding the relationship between coping strategies, self-esteem and attainment. Further, whilst gender differences have been established this has occurred primarily within the secondary and further education setting and therefore a need arises to identify if similar trends occur within higher education.

Within the current higher education environment there is a drive towards the development of greater independence and personal reflection requiring students to take ownership of their learning. In order to do so, it is important that they are able to adopt appropriate coping strategies. Therefore, a need arises to understand and identify the coping strategies adopted by students and the extent to which these impact upon their self-esteem and level of attainment. This will allow the identification and implementation of support mechanisms where appropriate.

Given the importance of the first year (students are more likely to drop out at this level), this study focuses on the coping strategies adopted by a cohort of first year undergraduates and the extent to which these impacted on self-esteem and attainment. Specifically, the following research questions were addressed. What are the nature and type of coping strategies adopted by first year students? To what extent are coping strategies linked to self-esteem and attainment? Are gender differences present in respect of coping strategies, self-esteem and attainment?

Methods

Participants
One hundred and sixty (58 female and 102 male) first year sport sciences undergraduate students participated in the study. The students were aged between 18 and 20 years of age.

Instruments

York Self-Esteem Inventory (YSEI: Rector and Roger, 1996). The scale comprises 30 items measuring global self-esteem. Items reflect various evaluative self-domains including personal, interpersonal, familial, achievement, physical attractiveness and the degree of evaluative uncertainty across these domains. Preliminary psychometric examination of the scale (Rector and Roger, 1993) has revealed strong internal reliability (t = 0.86) and test–retest reliability (0.83). The self-esteem has also been shown to correlate highly significantly with established indices of self-esteem including the Rosenberg Self-Esteem Scale (1965).

Emotional Control Questionnaire (ECQ: Roger and Najarian, 1989). The ECQ comprises four factors: Rehearsal, Emotion Inhibition, Aggression Control, and Benign Control. Rehearsal examines the degree to which a person broods over past threats and failures. Emotional Inhibition measures the willingness of participants to express emotion. Aggression Control is a measure of the degree to which aggression is controlled, and finally Benign Control is a measure of impulsivity. Factors have been shown to possess satisfactory internal consistency (Rehearsal: 0.86; Emotional Inhibition: 0.77; Benign Control: 0.79; Aggression Control: 0.81) and test–retest reliability (Rehearsal: 0.80; Emotional Inhibition: 0.79; Benign Control: 0.92; Aggression Control: 0.73).

Coping Styles Questionnaire (CSQ: Roger et al., 1993). The CSQ comprises three factors – a bipolar scale entitled Detached/Emotional coping, a Rational dimension and an Avoidant coping factor. The factors have been shown to possess acceptable internal consistency (range: 0.69–0.85,) and good test–retest reliability over a 3-month period (range: 0.70–0.80).

Procedure

Participants were asked to complete a questionnaire package containing a consent and demographic form, and the YSEI, ECQ and CSQ at the end of the 2004/5 Spring Semester. During the administration of the questionnaires one of the authors was always present to answer any questions that arose. Finally, at the end of the academic year attainment grades for each participant were obtained from a central university source. Grades were averaged and grouped according to degree classification criteria.

Data analysis

Data analyses comprised four phases. Initially, data were screened for univariate and multivariate outliers using standardized z-scores and the Mahalanobis Distance test respectively. Second, the distributional properties

of the data were assessed. Third, in order to determine whether gender differences in coping style and attainment were present and hence, whether to run separate regression analyses a MANOVA and t-test were conducted. Finally, multiple regressions were conducted to explore the relationship between attainment grade and coping styles.

Results

Data screening and descriptive statistics

Data screening revealed no univariate or multivariate outliers. Descriptive statistics can be found in Table 1.

Gender differences in coping style and attainment

Results of the 2 (gender) $\times$ 8 (coping styles) MANOVA revealed a significant difference between males and females, Wilks' Lambda = 0.86, F (8, 151) = 3.11, p <0.01, η^2 = 0.14. Specifically, follow-up univariate analysis revealed significant differences in self-esteem, F = 4.85, p <0.05, η^2 = 0.03, detachment F = 12.48, p <0.01. η^2 = 0.07, and emotional inhibition, F = 4.16, p <0.05, η^2 = 0.03. In all cases, males scored significantly higher than females (see Table 1 for descriptive statistics).

Finally, a Mann-Whitney U-test revealed that female students attained a significantly higher final grade than their male counterparts (see Table 1). Based on these results separate regression analyses were conducted for male and female participants.

Table 1   Descriptive statistics for the YSEI, ECQ, CSQ and Final Grade

Instruments	Factors	Male		Female	
		M	SD	M	SD
YSEI	Self-esteem	111.58	14.85	106.21	14.86
ECQ	Rehearsal	5.72	3.42	6.41	3.35
	Emotional inhibition	7.08	3.20	6.03	2.96
	Aggression control	7.25	2.90	7.88	3.06
	Benign control	6.48	2.99	6.74	2.43
CSQ	Detachment/emotional coping	40.30	8.82	35.22	8.60
	Rationalization	15.74	3.75	15.07	4.16
	Avoidance	11.60	5.03	10.90	4.36
Attainment	Grade	4.97	0.84	5.34	0.76

Key: Grade: 1 = < 20%, 2 = 20–29%, 3 = 30–39%, 4 = 40–49%, 5 = 50–59%, 6 = 60–69%, 7 = 70–79%, 8 = > 80%

Regression analyses for male and female participants

Regression analyses revealed that none of the coping strategies were significant predictors of final grade (see Table 2).

Discussion

The purpose of this study was to investigate the coping strategies adopted by first year undergraduate students. Specifically, it addressed the impact they had on self-esteem and academic attainment and whether any gender differences were present.

In contrast to previous research (Brown et al., 2005), results showed no relationship between the coping strategies adopted and attainment in this first year cohort. This may be reflective of the level of study, which may not meet the academic level of initial student perceptions, allowing them to cope effectively with the academic demands placed upon them. Such a premise supports previous research (Folkman and Lazarus, 1985) demonstrating that variance in the strategies adopted by individuals was dependent upon the perceived demands placed upon them.

Table 2   **Standard linear regression analyses to predict grade from YSEI, ECQ, CSQ subscales (N = 160)**

Gender	Dependent variable	Independent variable	Standardized Beta
Male	Grade	Self-esteem	−0.14
		Rehearsal	0.14
		Emotional inhibition	0.03
		Aggression control	0.20
		Benign control	−0.01
		Detachment/emotional coping	−0.13
		Rationalization	0.14
		Avoidance	−0.13
$R = 0.30, R^2 = 0.09$			
Female	Grade	Self-esteem	0.18
		Rehearsal	−0.14
		Emotional inhibition	−0.26
		Aggression control	0.12
		Benign control	−0.14
		Detachment/emotional coping	−0.07
		Rationalization	0.10
		Avoidance	0.18
$R = 0.33, R^2 = 0.11$			

$^* p < 0.05$

Analysis revealed gender to be a key determinant in academic success, with females attaining at a significantly higher level than males. Such findings are consistent with previous research (Richardson and Woodley, 2003; Smith and Naylor, 2001; Tinklin, 2003). Significant differences were also seen in self-esteem and coping styles between males and female participants, with males exhibiting higher self-esteem, greater ability to detach themselves from the emotions of a situation and more inclination to demonstrate emotional inhibition or 'bottling up' of emotions. In line with Ptacek et al. (1994) this suggests that in terms of the coping strategies adopted, males have a tendency to avoid using emotion-focused approaches in contrast to females who predominantly use this approach. Further, the results lend support to the notion that individuals high in self-esteem tend to perceive situations as controllable and react with a strategy aimed at changing the cause of the problem (Dodgson and Wood, 1989).

Lecturers may find it useful to expand students coping repertoires in relation to both problem- and emotion-strategies in order to address coping weaknesses in students. This may form part of the pastoral support structure within which students are encouraged to reflect upon academic progress and set appropriate goals for future development. Such practice may enhance student retention and their overall cognitive development (Fertig, 2003; Ul-Haq et al., 2003). Further, 'a support system for each and every student [should not be seen] as an optional extra but as an essential part of the fabric of every university faculty' (Owen, 2002: 7).

In spite of this, lecturers need to look towards the introduction of methods designed to encourage students to reflect upon their individual progress in order to identify areas of development (Cowan, 2006; Hinett, 2002). This may include the use of reflective journals as a basis for discussion during tutorial support or by the establishment within modules of support group networks. In addition, students should be encouraged to use the support mechanisms as a matter of course rather than turning to them when they have a problem. The implemented strategies should be reviewed on a longitudinal basis utilizing both quantitative and qualitative methods. This would enable the monitoring of changes in both self-esteem and coping through the course of the academic year and the resulting impact on academic attainment to be established.

Given the small sample size and the focus towards a single discipline, our future research will seek to recruit participants across degree courses from a number of universities in order that a more equal gender distribution is achieved allowing inferences about gender effects to be more valid, and to establish what effect, if any, the discipline has upon the strategies employed. Further, consideration needs to be given with regard to whether females are able to utilize emotion-focused coping more

effectively resulting in academic success or whether academic success negates the need to employ such strategies. Finally, consideration needs to be given to age of the participants. Future studies will look at the coping strategies adopted by students across levels of study, how these coping strategies change over the period of study, and whether age at entry to study impacts on the strategies adopted.

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