



**THE MICROSTRUCTURE OF A SHORT MEASURE OF NEGATIVE COPING AND ITS
ASSOCIATIONS WITH STUDENT WELL-BEING AND ACADEMIC OUTCOMES**

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ABSTRACT

Background: Avoidance, self-blame and wishful thinking can be described as negative coping styles in that prolonged use is often associated with negative outcomes. They are, therefore, an important component of models of well-being. The present study examined the microstructure of a three-item negative coping scale. **Methods:** An online survey was conducted, including questions on well-being outcomes and predictors of well-being (social support, psychological capital and stressors). The survey also included three items measuring negative coping (self-blame, avoidance and wishful thinking). One thousand two hundred and ninety-three university students completed the survey. Examination and coursework marks were available, and the Grade Point Average (GPA) score was calculated. The students also rated their perceived work efficiency and course stress. **Results:** Factor analysis showed that the negative coping questions loaded on a single factor. Correlations showed that all the negative coping items were significantly associated with well-being outcomes, course stress, and perceived work efficiency. Multivariate analyses included the other established predictors of well-being. Negative coping was significantly associated with all the outcomes except for GPA. **Conclusions:** The individual items from the negative coping scale of the WPQ were correlated with well-being outcomes, course stress and perceived work efficiency. The three-item negative coping scale from the Well-being Process Questionnaire consists of a single factor. When the total negative coping score and other established predictors of well-being and attainment were included in the same analysis, negative coping was associated with all outcomes except GPA, and the associations were generally higher for negative outcomes than positive ones.

KEYWORD:- Well-being; Social support; Student Stressors; Negative coping; Psychological capital; Perceived stress; Negative well-being; Positive well-being; Academic attainment; Perceived efficiency; Course stress.

INTRODUCTION

The Well-being Process approach^[1, 2] was developed from the Demands Resources Individual Effects (DRIVE) stress model.^[3,4] The Well-being Process Questionnaire (WPQ) was initially designed for occupational samples,^[5-21] and a negative coping scale was developed based on single questions about avoidance, wishful thinking and blame. A version of the WPQ was then developed for use with university student samples.^[22-40] The Well-being Process Questionnaire (WPQ) included more predictor variables (e.g. psychological capital) than the DRIVE model and more positive outcomes (happiness, positive affect and life satisfaction). Many studies have generally replicated the effects of the established predictors and added new outcome variables (e.g., physical health and flourishing) and predictors (e.g., workload, flow, work-life balance, and daytime sleepiness). Results obtained from university students have been replicated with samples from a secondary school.^[41-46]

One key approach in developing the WPQ was using short scales to assess the different concepts. This allowed the inclusion of many concepts in the questionnaire. The present study aimed to investigate the microstructure of a negative coping scale and examine its associations with well-being and attainment outcomes.

Coping is a key process in the relationship between psychosocial stressors and health outcomes and is an important stage of the transactional stress models of Folkman and Lazarus^[47] and Cox.^[48] Coping behaviours occur after secondary appraisal, and as they vary between individuals and appear to often have trait-like characteristics, coping can be conceptualised as an individual difference variable. Coping behaviours are often viewed as stable, dispositional characteristics, but Parkes^[49] states that situational and environmental factors are also important in determining coping behaviours. In transactional theories, individuals are assumed to be able to select from a range of coping

options, which they select and implement in response to different situations based on experience and current threats.^[48]

Folkman et al.^[50] suggested that coping could be divided into one of two major categories of response: either problem-focused behaviours, which involve rational efforts to solve the problem, make plans of action, etc, or emotion-focused coping, which aims to deal with the problem by managing emotional states or making emotional responses (e.g. venting frustrations, getting upset, avoidance behaviours, etc). Problem-focused coping strategies were proposed to be adaptive for many situations, particularly those for which outcomes could be changed. Emotion-focused coping is more appropriate for situations which cannot be changed (e.g. the death of a loved one). The exclusive use of emotion-focused behaviours is counterproductive and related to negative health outcomes. Other classifications of types of coping behaviour include Vigilance/Avoidance,^[51] with the former related to an excessive focus on the threat-related aspects of a stressor, and the latter where attention is averted from threatening cues, and the similar conceptualisation of Monitoring/Blunting,^[51] or Positive/Negative coping.^[6,7,24]

The problem-focused and emotion-focused distinction^[50] has proved perhaps the most popular in coping research. However, it has been criticised as being too simple by many,^[52] and alternative, more complex classifications for coping behaviours have been suggested by Carver, Scheier, and Weintraub,^[53] and others, who have suggested that a five or six-factor structure for coping is a better representation of how people cope. Folkman et al.^[50] and Schaubroeck^[54] claim that the relation between events and health status is mediated by coping processes, and according to Cox and Ferguson,^[48] mediation is a key process in primary appraisal. This suggests that past coping success and an individual's coping repertoire can influence the appraised threat of a situation. Cox and Ferguson^[48] also state that coping is a key moderator in the stress-outcome relationship and that individual differences in coping are instrumental in influencing different health outcomes.

There is much evidence showing links between coping behaviours and health outcomes. For example, Healy and McKay^[55] found that avoidance coping was associated with poor mental health and active problem-solving was associated with greater satisfaction in nurses. However, Cooper et al.^[56] state that there are inconsistencies in the findings. Bar-Tal and others claim that much coping research is disappointing, and even today's knowledge is still limited on coping's contribution and how it relates to stressors and strain. Briner, Harris and Daniels^[57] state that there is much research on coping but a very narrow range of methods used. Dewe et al.^[58] also claim that a major issue in this field is the failure to establish a consistent research framework for the measurement and

identification of coping strategies, and thus, more research remains to be done.

The questions used in the WPQ were developed from the Ways of Coping scales.^[59] The present study's first aim was to examine whether the negative coping questions were independent or loaded on a single factor. A second aim was to investigate associations between these questions and well-being and attainment items. Finally, the analyses examined which associations between negative coping and the outcomes remained significant when established predictors (social support, stressors, psychological capital, and conscientiousness) were covaried.

Ethical committee approval

The Ethics Committee, School of Psychology, Cardiff University, approved the study, which was conducted with the informed consent of the participants.

Participants

One thousand two hundred and ninety-three undergraduate psychology students (138 male; 1145 female; mean age = 19.5 years, age range 17-48 years; 49.7% year 1, 50.3% year 2) completed the study.

Materials

The online survey contained questions about well-being and academic attainment. The negative coping questions are shown below.

Avoidance

When I find myself in stressful situations, I try to avoid the problem (e.g. I keep things to myself, I go on as if nothing has happened, I try to make myself feel better by eating/drinking/smoking).

Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Self-Blame

When I find myself in stressful situations, I blame myself (e.g. I criticise or lecture myself, and I realise I brought the problem on myself).

Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Wishful thinking

When I find myself in stressful situations, I wish for things to improve (e.g., I hope a miracle will happen, I wish I could change things about myself or my circumstances, or I daydream about a better situation).

Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Well-being questions

The Student Well-Being Process Questionnaire (WPQ)^[25] consisted of questions about the well-being predictors and well-being outcomes.

Academic performance

The average coursework and examination marks and the Grade Point Average (GPA) were available, and ratings

of perceived work efficiency and course stress were recorded.

Analysis strategy

A factor analysis determined whether the three negative coping questions were independent or loaded on a single factor. Correlations were computed to examine the associations between the individual negative coping questions and the well-being and attainment scores. A MANOVA was then carried out to investigate which well-being and attainment variables were significantly associated with negative coping when the other established predictors of well-being were covaried.

RESULTS

Factor analysis revealed a single-factor solution accounting for 52.6% of the variance. Table 1 shows the correlations between the negative coping scores and the

well-being and attainment measures. All the negative coping questions were significantly associated with the outcomes ($p < 0.01$), except the correlation between self-blame and GPA.

A MANOVA was then carried out, including the total negative coping variable and the established predictors of well-being, with the attainment and well-being variables as dependent variables. This analysis showed which associations with negative coping remained significant when other established predictors were covaried. The overall effect of negative coping was significant (Wilks Lambda = 0.88 $p < 0.001$); all the established predictors (conscientiousness, stressors, social support, and negative coping) showed significant associations with the outcomes. Negative coping was significantly associated with all the outcomes (all p 's < 0.001) except for GPA.

Table 1: Correlations (Pearson r) between the negative coping scores and well-being and attainment outcomes.

| | Positive well-being | Negative well-being | Work efficiency | Course stress | GPA |
|------------------|---------------------|---------------------|-----------------|---------------|---------|
| Self-blame | -0.34 | 0.49 | -0.10 | 0.20 | 0.04 ns |
| Avoidance | -0.32 | 0.34 | -0.27 | 0.12 | -0.10 |
| Wishful thinking | -0.11 | 0.26 | -0.07 | 0.20 | -0.07 |

DISCUSSION

The Well-being process approach was developed from the DRIVE stress model. The DRIVE model included job characteristics such as demands, control and social support. It also included individual characteristics such as coping styles. The well-being process approach also included positive predictors, such as psychological capital, and positive outcomes, such as happiness, life satisfaction, and positive affect. Negative coping has several components, such as avoidance, self-blame and wishful thinking. Previous studies have assumed that these variables can be summed to give a total negative coping score, a significant predictor of well-being outcomes. Studies with occupational samples have also used a single question to measure negative coping.^[6] Surveys of university students have generally used separate questions measuring avoidance, self-blame and wishful thinking. The analyses reported here confirmed that the individual negative coping items load on a single factor. In addition, these items were all significantly correlated with well-being outcomes, perceived course stress and work efficiency. The correlations with negative well-being outcomes were generally higher than those with positive well-being outcomes and attainment variables. When other established predictors were included in the analyses, the results showed that negative coping remained significantly associated with all outcomes except the GPA. These results suggest that a single question could represent negative coping, and a recent study confirms this.^[60] This approach has also been applied to exposure to psychological stressors,^[61] social support,^[62] and psychological capital.^[63]

CONCLUSION

Prolonged use of avoidance, self-blame and wishful thinking is often associated with negative outcomes. Therefore, these negative coping styles are an important component of models of well-being. The present study examined the microstructure of a three-item negative coping scale. One thousand two hundred and ninety-three university students completed an online survey. The survey included questions on negative coping, well-being outcomes and other predictors of well-being (Social support, psychological capital and stressors). Examination and coursework marks were available, and the students also rated their perceived work efficiency and course stress. Factor analysis showed that the negative coping items loaded on a single factor. Correlations showed that all the negative coping questions were significantly associated with well-being outcomes, course stress, and perceived work efficiency. Multivariate analysis, including the other established predictors of well-being, showed that the total negative coping score was significantly associated with all the outcomes except for GPA. In summary, the three negative coping questions from the Well-Being Process Questionnaire were loaded on a single factor, and the individual negative coping questions were all correlated with well-being outcomes, course stress, and perceived work efficiency. When the total negative coping score and other established predictors of well-being and attainment were included in the same analysis, negative coping was associated with all outcomes except GPA, and the associations were generally higher for negative outcomes than positive ones. These results show that a single negative coping question can be used in the WPQ,

and similar results have been found for stressors,^[60] social support^[61] and psychological capital.^[62]

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