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Student Paper

Examining the Influence of Motivation and Engagement on Psychological Distress: A One-Year Follow-Up Study

Xinrong Cheng, Andrew Holliman, and Daniel Waldeck

Abstract

Few would dispute the importance of motivation and engagement as predictors of students' psychological functioning at university. However, there are at least two key issues in this area: 1) few studies embrace a validated, 'multidimensional' framework, for motivation and engagement; and 2) few studies in this area control for wellbeing outcomes at baseline. In this study, a sample of first-year university students ($N = 71$) completed measures of motivation and engagement as well as psychological distress in Year 1, and their psychological distress was measured again in Year 2, one year later. It was found that after controlling for age, gender, and psychological distress (Time 1), motivation and engagement was predictive of psychological distress one year later. The findings demonstrate the importance of motivation and engagement in predicting psychological functioning among university students over the course of their studies.

Keywords: *Motivation; Engagement; Wellbeing; Distress; University.*

Introduction

Psychological distress can be defined as a "non-specific set of psychological symptoms including, for example, depression, anxiety or stress" (Kraiss et al., 2023, p. 16789). Prevalence of psychological distress is reportedly higher among university students (when compared with the general population) and is of particular concern (see Granieri et al., 2021, for some related discussion). Indeed, it has been argued that if students do not manage their transition to higher education effectively, this may lead to stress. Holliman et al. (2020) suggest that the likely change to locale, social networks (e.g., old ties may be lost), and the increased demand on learning in more depth in their subject can be challenging for some students. Research has shown that motivation and engagement factors might influence psychological distress. For example, longstanding evidence has shown that motivation is an important predictor of psychological health (Deci & Ryan, 2000) and a systematic review revealed 'lack of engagement' to be commonly associated with poor mental health (Campbell et al., 2022).

The present study attempts to extend existing work. In response to calls for a more integrative approach that embraces a multidimensional motivation and engagement framework (see Murphy & Alexander 2000), Martin's (2007) Motivation and Engagement Scale (inspired by the associated 'Wheel') was used, which incorporates numerous conceptual areas relevant to motivation and engagement (e.g., mastery, self-efficacy, persistence, and control). Moreover, in an effort to address issues of directionality in longitudinal work, it is important to control for factors such as psychological distress reported at baseline. Therefore, the present study examines whether motivation and engagement is predictive of psychological distress one year later after controlling for known factors such as age, gender, and distress at baseline.

Method

Sample and Procedure

This study draws on the same sample as that reported in prior work focusing on other psycho-educational constructs, such as 'adaptability' (Holliman et al., 2022). Seventy-One students were sampled from a University in the West Midlands in their first term by responding to an online and/or in-lecture advert promoting the study. Of those who took part, all were in Year 1, most were white British (59%), female (76%), and from the UK (73%), and the vast majority were aged around 20 years ($M = 19.89$; $SD = 3.65$). This study received ethical approval from the participating institution and adhered with the Code of Ethics and Conduct set out by the British Psychological Society.

Measures

In addition to self-reported 'age' (years) and 'gender (0 = male, 1 = female)', the Motivation and Engagement Scale – University/College (MES-UC-Short; Martin, 2007) provided a measure of students' positive and negative 'motivation and engagement'. Participants responded to 11 items capturing different component of motivation and engagement using a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). To obtain a single estimate (i.e., average score) of motivation and engagement, 'adaptive dimensions' (self-efficacy, valuing, mastery orientation; persistence, planning, task management) were combined with reflected 'impeding/maladaptive dimensions' (anxiety, failure avoidance, uncertain control, self-handicapping, disengagement – e.g., "I often feel like giving up in my university course."). Cronbach's alpha was .73.

The Kessler Psychological Distress Scale (K10) (Kessler et al., 2002) provided a measure of students' general level of 'psychological distress'. Participants responded to 10 items (e.g., "During the last 30 days, about how often did you feel nervous?") capturing incidence of symptoms of anxiety and depression over the last month using a 5-point Likert

scale from 1 (none of the time) to 5 (all of the time). Cronbach's alpha was .92 at baseline and .82 one year later.

Results

Means, standard deviations, and bivariate correlations are shown in Table 1. As indicated, motivation and engagement was significantly negatively associated with psychological distress (both time points) and later psychological distress was positively predicted by earlier psychological distress.

A hierarchical regression was conducted to test whether motivation and engagement could account for significant variance in *later* psychological distress after controlling for age, gender, and *earlier* psychological distress. The results showed that in Step 1, age (β = -.09, p = .35) and gender (β = .09, p = .32) were not significant predictors of later distress, however, earlier distress was a significant positive predictor (β = .56, p < .001). Together, these variables accounted for 36.1% of the variance in later distress. In Step 2, Motivation and Engagement provided an additional 5.7% of the variance and was a significant negative predictor of distress (β = -.29, p = .01).

Discussion

In line with prior work (e.g., Campbell et al., 2022; Deci & Ryan, 2000), this study found that motivation and engagement (utilizing a multidimensional motivation and engagement framework and associated scale: Martin, 2007) is predictive of psychological distress among university students after one year, even after age, gender, and earlier psychological distress has been controlled. The findings therefore demonstrate the importance of motivation and engagement in predicting psychological functioning among university students over the course of their studies. As such, universities might consider how best to support students' motivation and engagement to help reduce incidence of psychological distress over the course of their studies.

There are some limitations that will be acknowledged here. First, the sample size was limited. There was also scope, to include and control for other factors that were not included in this study (e.g., social identity and loneliness) and even to explore antecedents of motivation and engagement (see Mansour & Martin, 2009, for relevant discussion). Finally, a single estimate of motivation and engagement was used in the present study; however, it is acknowledged that there exist some differences in factors predicting, and outcomes predicted by, motivation and engagement (see Martin et al., 2017), so future work might delineate facets of motivation and engagement (Nagy et al., 2022). Despite this, the present study offers new evidence regarding the important role of motivation and engagement for students' psychological functioning at university.

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Table 1: *Means, standard deviations, and correlations between key variables.*

Variables	1	2	3	4	5
1. Age					
2. Gender	-.01				
3. Motivation and Engagement	.22**	-.06			
4. Psychological Distress (Time 1)	-.12*	.12*	-.51**		
5. Psychological Distress (Time 2)	-.30*	.20	-.54**	.61**	
Mean	19.89	.74	4.84	2.62	2.62
SD	3.65	.44	.80	.85	.76

Note: *p* <.05; **p* <.001.