Regular physical activity promotes health benefits; however, many college students are not meeting physical activity recommendations. Furthermore, the transition to college life may have a negative impact on exercise motivation. According to the Social Cognitive Theory, motivation and self-efficacy may influence health behaviors. However, limited research has investigated this potential relationship among college students. **PURPOSE:** To determine if there is a significant relationship between exercise motivation and physical activity among college students. **METHODS:** In this quantitative cross-sectional survey study, a volunteer sample of 307 undergraduate students (75.2% White, 68.7% Female), enrolled in health and fitness courses at a Mid-Atlantic region University and Community College, completed an online demographic questionnaire, International Physical Activity Questionnaire-Short Form (IPAQ-SF), and Behavioral Regulations in Exercise Questionnaire (BREQ-3). A linear regression analysis was conducted to assess the relationship between relative autonomy index (RAI) and MET-minutes/week. **RESULTS:** RAI was a significant predictor of total MET-minutes/week ($p < .001$). A correlation coefficient value of .389 indicated a moderate, positive, linear relationship between total MET-minutes/week and RAI. Predicted physical activity, measured in MET-minutes/week, was equal to $1748.972 + 271.869(RAI)$. **CONCLUSION:** There is a significant relationship between exercise motivation and physical activity among college students. **SIGNIFICANCE/NOVELTY:** In light of this relationship, physical activity interventions designed for college students should focus on improving self-regulation skills and self-efficacy. The BREQ-3 appears to be a useful tool that provides an accurate measurement of exercise motivation in the college student population, identifying specific regulations of exercise behavior.