

# Creatine Usage and Perceptions Among University of Dayton Students

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## Introduction

Creatine is a compound produced endogenously by the liver and is found in skeletal muscle cells. It can also be taken exogenously as a supplement and is often used by athletes and those who exercise regularly to enhance performance and improve training adaptations (Kreider et al. 2017). Various cognitive benefits have been presented in research as well (Kreider et al. 2017). While a popular supplement, there are still elements of creatine supplementation that are not fully understood and continue to be a topic of research. Many individuals are unaware of the potential benefits creatine supplementation can provide. In addition to this, limited research investigating creatine awareness, usage, and perception has been conducted on United States' college campuses. This became the focus of the investigation.

## Methods

We conducted a cross-sectional study. We sent a survey to UD students aimed at investigating their perceptions/attitudes surrounding creatine, awareness, and willingness to take it. We asked questions about demographic information, including gender and student status (Kristiansen et al. 2005), Wiens et al. (2014), and Jovanov et al. (2019) collected participants' types of exercise participated in, and we asked participants a similar question in order to identify the intensity of their regular athletic participation. In addition to this, participants were asked questions about their familiarity with creatine as a supplement and any personal usage of creatine. The questionnaire concludes with the respondents ranking how likely they would be to start supplementation assuming the information provided in the question to be true.

## Results

We conducted frequency and description calculations for the data collected from the 77 total students that participated in this study. Linear regressions and covariate analyses were conducted to analyze answers to activity level and willingness to take creatine as it related to gender. In addition to this, willingness to take creatine was also used in a linear regression to look at team athletes and those that are not on a UD athletic team. Our model increased the percentage of correctly predicted gender by 27.3%, from 71.4% without our model to 98.7% with the model. Similar results were observed with team athletes and nonathletes, with correct predictions increasing 16.9%, from 71.4% without the model to 88.3% including the model.

## Conclusion

A majority of UD college students that participated in this study were aware of creatine being a sport supplement, but few used it as a supplement in their diet. Surprisingly, no varsity/club athletes reported supplementing creatine. Despite this, our model demonstrated existing gender differences surrounding exercise affiliation, creatine awareness, and willingness to begin creatine supplementation under specific circumstances. Additionally, differences were also noted based on athletic team affiliation or more casual exercise practices. Future research to investigate specific areas of differences present in these groups could lead to a better understanding of the perceptions and practices of creatine use in UD students.

## References

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