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Proposal

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**CHAPTER 1: INTRODUCTION**

1. **Physiological Area**

Benefits of taking Creatine Supplements

**Rationale:**

 Creatine is a substance that occurs naturally in muscle cells and helps produce energy during high exercise and up-lifting. Taking creatine is more common in athletes and those involved in heavy routine work. Taking creatine build strength and enhance muscle efficiency to improve the performance of athletes. In the 1970s, scientists perform research on the benefits of taking creatine supplements and reveal that these supplements are complimentary in enhancing physical performance. In the 1990s, taking creatine has become common in athletes and was known as a sports supplement. Creatine supplements help athletes to achieve tough competitions by enhancing energy and speed. The muscular boost that athletes got after taking creatine supplements helps them to sprint and weight lifting. There are numerous researches conducted on the nature and benefits of creating accessories. Some researchers suggest that taking creatine supplements can maintain endurance for a short period. At the same time, other investigations reveal that taking creatine supplements does not respond to everyone’s body, which means not everyone sees change after taking creatine supplements (K. VANDENBERGHE, 2020).

 Creatine supplements are the world's best and most effective supplement that brings energy and speeds up muscle activity. Taking creatine supplements for regular 5-7 day’s increases muscle size and body weight caused by the increase in the water content of human muscles. A study of 6-week conducted on the importance and benefits of creatine supplements add 4.4 pounds muscle mass compared to the control group (KREIDER, FERREIRA, & WILSON, 1997). Training at the gym or for sports requires athletes to take these supplements to stay active and smart all the time. Researches reveal that the comparison of the control group showed an average increase in muscle mass and the performance of those who take creatine supplements. During sprinting exercise and at the gym muscles, need extra energy that is supplied through the intake of creatine supplements. Studies revealed that supplementing a diet with 20 g·d-1 creatine monohydrate for 5-7 days will create creatine content in human muscles - up to 20-40%. It also increases athletes' intramuscular activity (KREIDER, FERREIRA, & WILSON, 1997, p. 4).

 Researches (JORGE M. ZUNIGA, 2012) says that if creatine supplements are suitable for a body, it started showing evidence in a week or a few days. Studies also suggest that creatine supplementation helps in fiber muscles' growth and effective in taking while resistance-based-exercise. Some scientists argue that it is not a magic pill, but it can still bring change in muscles' activity and boost the performance of athletes and high-school students who take it to perform different games. Researches from the National Library of Medicine says that creatine supplementation is not all about increasing muscle mass, but it has numerous other benefits (JEFFREY R. STOUT, 1999, p. 137). Such as a person suffers from sleep deprivation that affects the mood and mental health of people. To keep yourself up all night without dropping mood and health, taking creatine supplements is useful.

 Some creatine users claim that they got cramps due to the use of creatine, but research, as highlighted above, is not evident that creatine supplements will suit everyone. Some users report kidney problems associated with the help of creatine. Along with the benefits of creatine supplements, there are numerous risks associated with this intake that needs to be considered when deciding to use the supplement.

**Purpose:**

This research aims to determine the benefits of taking creatine supplements and how it could be better used to enhance the energy of users.

**Hypothesis:**

 It is hypothesized that the intake of creatine supplements is beneficial to boost athletes' energy by increasing muscle mass and strengthening muscles.

**Key Terms:**

1. **Muscles:** A bundle of tissues in the human body that enable humans to produce movements and help maintain body mass.
2. **Creatine:** Creatine is a natural substance present in the human body that turns into creatine phosphate that provides energy to the body during contractions.
3. **Sprinting:** it is known as an exercise that includes running over a short period.
4. **Monohydrate:** it is a substance that contains constituent elements of water.
5. **Fatigue:** it is defined as extreme tiredness caused after exercise or some heavy activity.

# References

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