

Honors Day Abstract: Correlation between Grip Strength and Exit Velocity of DIII Collegiate Softball Players

Batting average is an important measure of skill at the plate for baseball and softball players. Those that have a higher batting average can contribute to the overall success of their teams. Batting average is calculated by dividing hits by at-bats, and is strongly correlated with exit velocity, or the speed at which the ball leaves the bat post-contact. Therefore, improving exit velocity is an important factor in training for baseball and softball players. Previous research has explored the relationship between grip strength and exit velocity in baseball players, highlighting grip strength as a critical component of hitting power. However, while this correlation has been well-documented in baseball, there is a significant lack of research on its relevance to softball players, particularly at the Division III level. This study seeks to address this gap and provide valuable insights into the role of grip strength in softball performance.

The purpose of this study is to determine whether grip strength, as measured through a hand dynamometer, has any significant relationship with exit velocity in individual hitters. This research will focus on players from the Alma College softball team who meet specific eligibility criteria, including being 18 years of age or older and free from any physical limitations or injuries sustained in the past six months.

Data will be collected across three sessions- once after the fall season, once at the beginning of spring training, and once during mid-spring season. Participants will undergo standardized grip strength assignments, followed by exit velocity testing using specialized equipment.

As this research is still ongoing, no preliminary findings are available at this time. However, it is hypothesized that greater grip strength will be positively correlated with higher exit velocity. The findings of this research could provide valuable insights into the role of grip strength in improving exit velocity, ultimately helping athletes and coaches optimize performance in collegiate softball.