The Prevalence of Wrist Wrap Use in Actively Competing Powerlifters

DILLON R. HARRIS, THOMAS D. CARDACI, HARRY P. CINTINEO, RICHARD D. PHAM, KRISTEN A. DUNSMORE, LESLEE K. FUNDERBURK, STEVEN B. MACHEK

Baylor Laboratories for Exercise Science & Technology; Department of Health, Human Performance, and Recreation; Baylor University; Waco, TX

Category: Master's

Advisor / Mentor: Leslee, Funderburk (leslee_funderburk1@baylor.edu)

ABSTRACT

Wrist wraps are often ergogenically employed by competitive powerlifters to improve bench press performance, but several product-specific variations may impact any potential benefits. Moreover, the prevalence of athletic wrist wrap use is hitherto undescribed. PURPOSE: to characterize the pervasiveness of wrist wrap use amongst competitive powerlifters with regards to style (flexible [F] or stiff [S]), length, and tightness amongst competitive powerlifters. **METHODS:** Powerlifters (n = 70; 27±6y) who competed in the last two years were randomly recruited at sanctioned meets across the USA. After providing consent and following a 5-minute seated rest, participant wrist wrap use descriptive data (wrap style [F or S], wrap length, and events used) were collected. Additionally, wrap tightness was assessed via pulse oximeterdetected oxygen saturation (SpO2). Post-meet bench press one repetition maximum (1RM) was also recorded from the Openpowerlifting.com open database. Wrist wrap use prevalence data (wrap style [F or S], wrap length, and events used) were assessed across Central, West Coast, and East Coast regions via separate Pearson's Chi-squared tests. Furthermore, the relationships between both region-collapsed wrapped SpO2 and bench press 1RM were assessed using Pearson's product-moment correlations and all statistical analyses were set at a significance level of p<0.05. RESULTS: Analyses failed to detect any significant regional differences in wrap style, length, or events used (p>0.05). Furthermore, there was a weak, negative correlation between wrapped SpO2 and bench press 1RM (r = -0.393, p = 0.086). **CONCLUSIONS:** Although we failed to detect any significant relationships between performance and wrap tightness, actively competing powerlifters nonetheless prominently utilize wraps similarly across the US regions assessed. Therefore, the potential for wrist wraps to augment bench press performance warrants further elucidation in a controlled, standardized investigation.

ACKNOWLEDGEMENTS: The authors would like to thank USPA president, Mr. Steve Denison, and USAPL president, Dr. Larry Maile, for endorsing the research project, to assist in the completion of this investigation. This abstract uses data from the OpenPowerlifting project, https://openpowerlifting.org

www.tacsm.org