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THE EFFECT OF TARGETED TRAINING REGIME ON  
EXPLOSIVE STRENGTH DEVELOPMENT IN YOUNG HANDBALL  
PLAYERS

Kopaonik, 2021.

# METHODS

## Subject sample

- Subject sample consisted of 17 handball players age 12-15 years old.
- Subject sample characteristics:
  - male,
  - included in continual training process.

## Variable sample

- In order to increase their explosive strength, players were subject to the specific strength training regime during the six months period.
- Explosive strength assessment was conducted at the beginning and at the end of the six months period – initial (I) and final (F) measurement points.
- The variable sample used to evaluate explosive strength:
  - 20 meter sprint (SP20);
  - throwing the 1kg medicine ball from sitting position with both hands from chest height (BMED);
  - standing broad jump (SKUD).

## Statistical and data analysis

- Description analysis and paired sample t-test were used to determine the influence of strength training regime on explosive strength.

# RESULTS AND DISCUSION

## Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Dev.	Skewness		Kurtosis	
	Stat.	Stat.	Stat.	Stat.	Stat.	Stat.	Std. Error	Stat.	Std. Error
SP20I	17	3.80	5.90	4.5553	.44190	1.592	.550	5.163	1.063
SP20F	17	3.60	5.60	4.2218	.45214	1.871	.550	5.077	1.063
BMEDI	17	1.14	2.15	1.5659	.26389	.809	.550	1.164	1.063
BMEDF	17	1.10	2.20	1.6424	.28525	-.008	.550	1.042	1.063
SKUDI	17	4.00	9.50	6.1029	1.60939	.868	.550	.843	1.063
SKUDF	17	4.20	9.70	6.2235	1.55223	.868	.550	.755	1.063

# RESULTS AND DISCUSSION

## Descriptive statistics

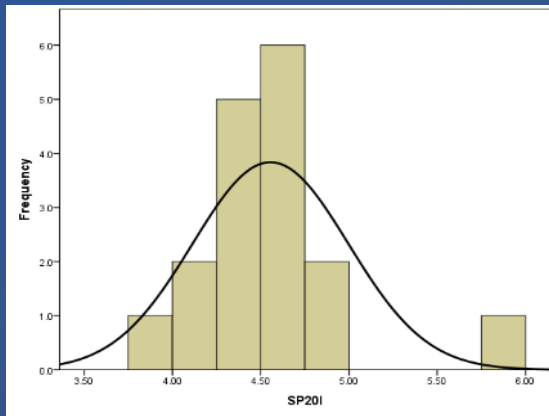


Figure 1 – SP20I

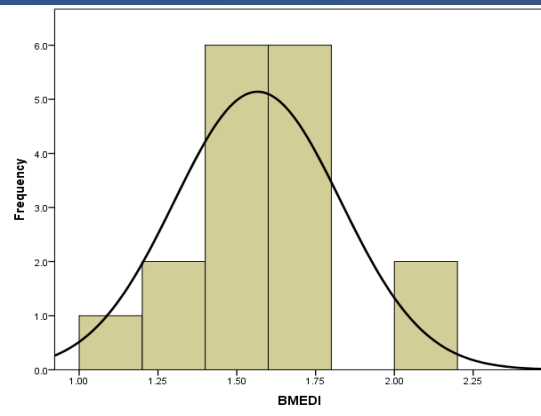


Figure 3 – BMEDI

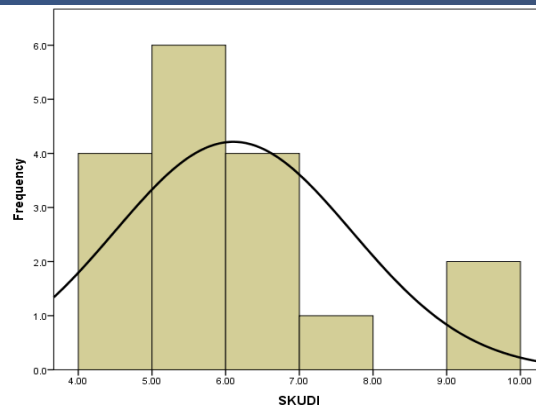


Figure 5 – SKUDI

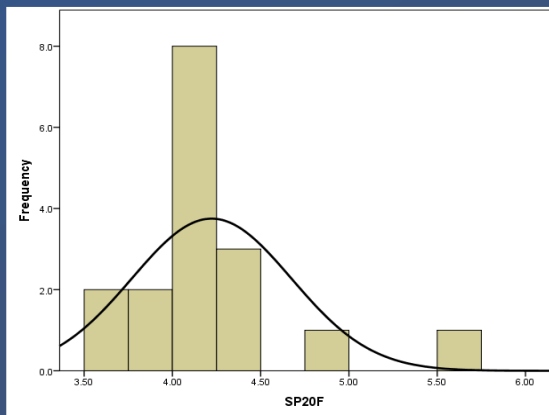


Figure 2 – SP20F

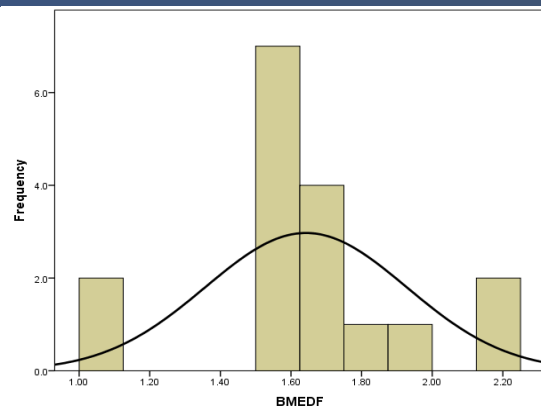


Figure 4 – BMEDF

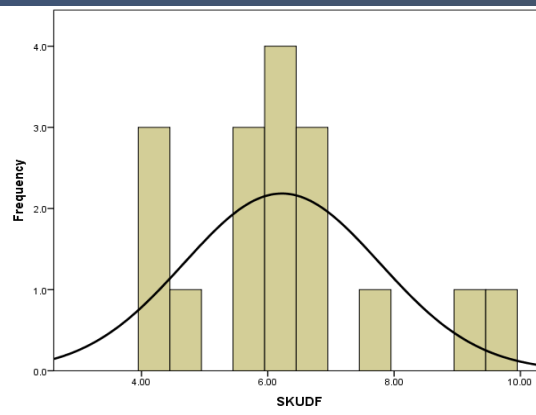


Figure 6 – SKUDF

# RESULTS AND DISCUSSION

## Paired sample correlation

	N	Correlation	Sig.
SP20I & SP20F	17	.858	.000
BMEDI & BMEDF	17	.951	.000
SKUDI & SKUDF	17	.996	.000

# RESULTS AND DISCUSSION

## Paired sample t-test

	Mean	Std. Dev.	Std. Error Mean	t	df	Sig. (2-tailed)
SP20I - SP20F	.33353	.23880	.05792	5.759	16	.000*
BMEDI - BMEDF	-.07647	.08874	.02152	-3.553	16	.003*
SKUDI - SKUDF	-.12059	.15315	.03715	-3.246	16	.005*



# RESULTS AND DISCUSSION

- The results show there was statistically significant increase in all observed variables.
- We can conclude that targeted training regime can significantly develop explosive strength in young handball players.

**Thank you for your attention!**