

THE 8th INTERNATIONAL CONFERENCE  
“ANTHROPOLOGICAL AND TEO-ANTHROPOLOGICAL VIEWS ON PHYSICAL  
ACTIVITY FROM THE TIME OF CONSTANTINE THE GREAT TO MODERN TIMES“

***RAPID WEIGHT LOSS METHODS IN JUDO  
ATHLETES:  
A SYSTEMATIC REVIEW***

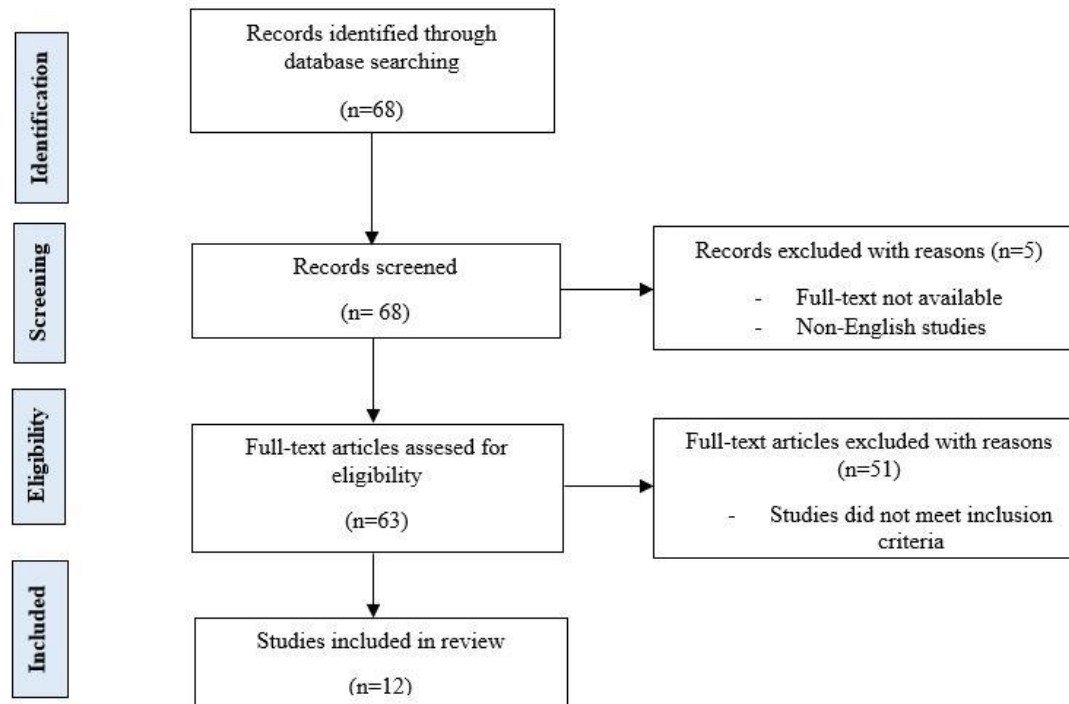
Authors :Stefan Majdov<sup>1</sup>, Samir Hačković<sup>2</sup> & Marko Lasković<sup>2</sup>

Faculty of Physical Education and Sport, University of East Sarajevo<sup>1</sup>  
Faculty of Sport and Physical Education, University of Nis<sup>2</sup>

- **Judo – Olympic combat sport planetarily popular**
- Rapid weight loss (RWL) methods are widely used among combat sport athletes of all ages and gender
- The AIM of this study was to synthesize the existing literature that examines RWL methods in judo athletes. The search for articles was conducted on electronic database PubMed. Out of 68 articles initially found, 12 studies, which met our inclusion criteria, were analyzed



# METHODS



- **Literature Search:** PRISMA flow diagram

- **Inclusion and Exclusion Criteria:**

For inclusion within this review only original articles, written in English were considered. Furthermore, articles published during the last 15 years, not including the current year, were only taken into account

- **Data Extraction**

The information about included studies participants and RWL methods was delineated through table (Microsoft Word Office 2019, Microsoft, Washington, USA)

# RESULTS

- In total, examined data was obtained from 1621 judokas, where the average age was near 22.5 years
- A total of 12 studies were included in this review, since 51 articles did not meet inclusion criteria, mostly because participants were not judokas
- The most frequently used methods for weight reduction were:
  - ❖ *increased exercise*
  - ❖ *caloric restriction*
  - ❖ *fluid restriction*
- Authors also reported less frequently used methods such as skipping meals, dehydration, training in heated rooms, reducing meal portion, fasting, sweat suits and sauna use.

# Table 1. Study design and participants' characteristics.

Author	N	Gender	Age (years)	RWL method
Artioli et al. (2007)	28	males	20 ± 3	-Dehydration; caloric restriction; decreased consumption of sweets and fat
Artioli et al. (2010)	822	males & females	19.3 ± 5.3	-Increased exercise; heated training rooms; skipping one or two meals
Coufalova et al. (2014)	9	males	22.3 ± 2.4	-Caloric restriction; increased exercise
Escobar-Molina et al. (2015)	144	males & females	15-30	-Caloric restriction
Berkovich et al. (2016)	108	males	14.6 ± 1.6	-Increased exercise; skipping meals; fasting
Kons et al. (2017)	12	males	23.3 ± 5.5	-Increased exercise; fluid restriction; heated training rooms
Malliaropoulos et al. (2017)	255	males & females	28.1 ± 11.1	-Increased exercise; caloric restriction; fluid restriction
Fortes et al. (2018)	39	males	22.2 ± 1.8	-Caloric restriction; increased exercise; sauna
Kim et al. (2018)	98	males & females	NA	-Reducing meal portion; skipping meals; fluid restriction
Berkovich et al. (2019)	68	males & females	33.8 ± 9.3	-Increased exercise and dehydration; sweat suits; fluid restriction
Drid et al. (2019)	8	males	19.3 ± 2.0	-Fluid restriction; caloric restriction; increased exercise
Kons et al. (2020)	30	males & females	16-50	-Caloric restriction; increased exercise

# DISCUSSION

- This systematic review investigated the methods of RWL in judo athletes that were preparing for the competition
- The most commonly used methods were *increased exercise* and *caloric restriction*
- Judokas mostly increase their exercise when the process of reducing body mass begins
- Most commonly used methods among judokas were fluid intake reduction, caloric restriction, plastic suit training and increased physical activity
- The highest usage of sauna was reported by 76% of MMA athletes, while elite kickboxers most commonly practice gradual dieting (45.9%) and increased exercise (44.3%) to reduce their body mass



# CONCLUSION

- We may be able to conclude that the most commonly used method for rapid weight loss in judo was increased exercise
- Increased exercise might be the least harmful method to the judokas health
- Other frequently used methods referred to the limitation of a caloric and fluid intake, while the least applied methods referred to the increase in fluid loss.
- However, it is immensely important for judo coaches to carefully implement RWL methods, considering their harmful effects, outlined in the existing literature

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