

## Model for Manuscript Review

### Research articles

#### Manuscript title:

Peerj-75022

Progressive overload without progressing load? The effects of load or repetition progression on muscular adaptations

<b>Title</b>	
Is it understandable and concise?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
Reflects the content?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
<b>Abstract</b>	
It includes: objectives, methodology, key findings and conclusions?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
<b>Introduccion</b>	
The investigation was carried out in a suitable theoretical structure?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
Clear leaves the questions you want to answer and objectives of the work?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The cited references are current and relevant?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
<b>Methods</b>	
The methods presented are appropriate to achieve the proposed objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The selection and composition of the sample are adequately described?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The data collection process and the tools used are described clearly?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The statistical analysis and the research design appropriate?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
<b>Results</b>	
The presentation of the results clear?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The main results are highlighted without the inclusion of interpretation and comparisons?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The results evaluate the proposed objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
Tables and figures are properly numbered, labeled and explained?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
<b>Discussion and Conclusion</b>	
The results are discussed based on the literature?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
Author's interpretations show the safety and soundness?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The limitations of the work are presented?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not
The conclusions of the study are presented?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not
The conclusions respond to the objectives?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not

#### General comments:

##### Title

The title is creative, however, it makes it difficult to understand and especially to understand the study.

##### Abstract

It is written in a structured way, however, the methodology is written in a very summarized way which ends up making the findings and conclusions of the article.

It would be indicated that the abstract had more data in an ethical and absolute ethics.

Another point observed was that the interventions present difficulties to be understood, thus, it suggests that in the methodology the interventions are better detailed.

Please check if the Keywords are listed as descriptors in health sciences.

## **Introduction**

The introduction is not starting from general to specific. It should initially present a more general approach and gradually address the problem (gap) and then present the objective.

The introduction should be more focused on the construct and not on the methodology of what is being researched.

The definition of the load would be important to be in the introduction. If no other definition is presented for the load, it normally refers to intensity, such as effort per unit of time and density, which is related to the stimulus permeated by the recovery time, this two, linked to training intensity and amplitude, which refers to the number of stimuli and duration, which refers to the time to apply the stimulus; these two connected to the volume. We still have the frequency that the stimuli are repeated in a certain time interval. In this sense, in order to vary the load, applying the overload, we would have to start from these definitions, or from another one duly referenced to justify the increase in the load, or overload, which is not identified in the introduction.

The term etc should be avoided in scientific studies, please review.

After the objectives, there should be hypotheses to be answered by the study.

## **Methods**

It should present more clearly the design of the study. A CONSORT or time line, should be presented in order to get a better view of the study design.

We agree on how the sample size was determined, however, in a study that will assess issues related to strength and hypertrophy, using men and women can lead to a misleading outcome. Either this is justified, or a way of evaluating the genres is evaluated separately.

Resistance training procedures do not provide the necessary data for the evaluation. There is a clear confusion between load and kilo. Training percentages were not mentioned, or even no subjective effort scale was used to characterize the training

intensity. There is mention of execution speed, but instruments were not presented to control this, such as filming, encoder or even metronome. How was this controlled?

There is no form of control, that is, repetitions between 8-12 are parameters, but we have the possibility that part of the subjects are doing 8 repetitions with higher percentages, while others could be training doing 12 repetitions with lower percentages. Would the load be the same in this case?

The instruments and test methodology must be correctly referenced, the instruments must bring model, manufacturer, city, state, when applicable, and country of manufacture. As for the tests, there must be who the creator was and if it is the case of validation and also the relevant cut-off points with the reference for these.

If the isometric force was not collected, it should not even be described in the methodology.

The jump test, strength-resistance, among others, were not supported by reference procedures and reference values. And much less of the methodological procedures adopted.

The ultrasound measurements also have methodological flaws that make it impossible to replicate the study in order to find the same results presented.

Statistical treatment should be better detailed in order to better follow what has been done. The study assumes that there are differences between men and women, so why evaluate the two together. Other assessments could be used that would favor the identification of differences more like an ANOVA. Please consult Cohen (1988).

## **Results**

Are presented satisfactorily. However, it is suggested that you consult what is mentioned in the methodology as they could interfere with the results.

The presentation of tables and figures are relatively well presented, however, after each one, the results to be discussed must be explained.

## **Discussion**

It should reaffirm the objectives and start discussing the results in the chronological order that appear in the item results.

There are many statements that are not supported by the results obtained. Another point that brings some strangeness is the continuous affirmation that it is the first

study. This should be reviewed. The results do not corroborate the statements and the outcomes are not properly explained.

### **Conclusion**

Are presented satisfactorily. However, there should be practical applications of the findings, which is not the case.

### **References**

Of the 33 references, 18 are current and 15 are more than five years old. Please review the formatting of the references and for a current study it would be feasible for the references to be more current.

### **Overview**

The manuscript presented addresses a relevant research topic.  
It would be advisable to do a general review.

### **Specific comments and suggestions:**

### **Outcome evaluation**

- Accept unchanged ( )
- Accepted with minor changes ( )
- Accepted with major changes ( x )
- Rejected ( )