OPEN PEER REVIEW

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International Journal of Endocrinology and Metabolism
Article DOI: 10.5812/ijem.99793
Published in: International Journal of Endocrinology and Metabolism: 18(3); e99793

Peer Review Report for "Glycemic Index (GI) Values for Major Sources of Dietary Carbohydrates in Iran"

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Review Timeline:

Submit Date: 9 Dec 2019
Revised Date: 9 May 2020
Accepted Date: 10 May 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

somayeh hossainpour: Reviewer | Revision (0) 11 Dec 2019

Dear AE,
Comments for the authors:
Introduction:
- "Nutrition transition in developing contries ---- fruit and vegetables". delete this sentence.
- Begin the second paragraph about the glycemic index.
- What is the importance of determining glycemic index? This topic is fully describe
- Some of the sentences have no reference. be corrected.
Subject
- One of the limitations of this study is the wide range of body mass index. It would be better if people with overweight were not included in the study. Insulin resistance was determined in individuals and Insulin resistant individuals were excluded from the study. People with a BMI greater than 25 may have insulin resistance, which may affect glycemic response. This is one of the major limitations of this study exclusion criterion: those with any disease????????
- The sample size is very small.
- How bread samples are collected. this topic should be fully explained. Bread needs to be collected from different places throughout the city.

methods of deteming of water, fat, carbohydrate, sugar, others????
taking blood from the middle and ring finger?? is it necessary
Result
- mean and SD of BMI and age should be reported.
- Why systolic and diastolic blood pressure has been reported
Discussion
- Sangak, Taftoon and Berber are whole grain. But in this study, glycemic index was higher than lavash bread. explain completely.
Thanks.

REFEREE: Reviewer | **Revision (0)** 18 Feb 2020

Dear AE,
Glycemic Index (GI) Values for Major Sources of Dietary Carbohydrates in Iran
In this paper, glycemic indices have been calculated and reported for major carbohydrate sources in the Iranian diet. The research is well designed and well-written. I have just a small comment on this manuscript:
- In table 2, there is no need for the last column (95%CI). If the authors insist to report CI, they are better to remove the column for standard deviation.
Thanks.

Farshad Teymoori: Reviewer | **Revision (0)** 1 Mar 2020

Dear AE,
Comments for the authors:
1. Please more explain (name the trademark) the rye and barley bread which you used.
2. Why do you use the lentil? Are you compared the lentil GI with the Word GI table?
3. The reasons mentioned for showing the unreliability of previously reported GI values from Iran do not seem to be good justifications. To our knowledge, the methods of baking the sangak or lavash are not remarkably changed from 20 years ago. Please take references for these justifications. Also, explain the changes in the wheat and flour type that you declared.
4. Please modify line 45. (Repetition in the “the results of this study”)
5. Please explain about the flours which are used for every of these wheat bread, are there any differences between the sangak, barbari, lavash, tafton?
6. Please compare your results with the study done by Esmaeili M et al (ref 16). There are great differences between your results; however, it seems that the specifications and features of the bread in the two studies are the same.
7. The values of portion size and serving size reported in tables 1 and 3 are confusing. Why did it report in different amounts? You compared the 50 gr soluble glucose with amounts of every food that contains 50 g available carbohydrate; I suggest which report the actual amounts. It is so better to have a clear logic for reporting serving size, e.g. based on calorie, carbohydrate, etc.
8. Regarding that the GI of lentil is constant, and also in the two mixed adaspolo the ratio of lentil to rice was 1:2; the justifications about differences in the GI is not convincing. Please more discuss.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 7 Mar 2020

Dear EIC,
This study needs minor revision.
Thanks.

REFEREE: EIC | **Revision** (0) 7 Mar 2020

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs minor revision. Please follow their comments as requested.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Thank you for your very careful and extensive review of the manuscript. We hope that the revisions and clarifications provided will help improve the text and meet with your expectations.

Please note the following:

Lines that are notated in the response sections may differ slightly from the corresponding lines mentioned in the comments. These differences are due to changes made to the Introduction and Discussion sections in accordance with the referees' comments and suggestions.

Reviewer 1:

Comments

1. Please more explain (name the trademark) the rye and barely bread which you used.

Response:

Thank you for this observation. Lines 119-120 have been revised accordingly to provide clarification.

…barley "100% simple barley bread, Sahar Bread. Co" and rye breads "Toast rye bread, Sahar Bread. Co", ….

2. Why you used of the lentil? Are you compared the lentil GI with the Word GI table?

Response:

Thank you for this observation. The aim of the study was not measuring the glycemic index of lentils themselves. In order to increase the consumption of legumes in the Iranian diet, since Adaspolo is one of the most common foods consumed by Iranians, we needed to measure its glycemic index as we wanted to study people's views on lentil replacement. This requires knowing its glycemic index to figure out a justification for this replacement. In the international table, the glycemic index of Adaspolo is not present.

3. The reasons which mentioned for showing the unreliability of previously reported GI values from Iran is not seems be good justifications. To our knowledge the methods of baking the sangak or lavash is not remarkably changed from 20 years ago. Please take references for these justifications. Also explain the changes in the wheat and flour type that you declared.

Response:

Thank you for your precision. The previous study was conducted in 1997. In 2010, the standard glycemic index determination method was developed and published by the International Standards Organization- the International Standard Determination of the Glycemic Index and Recommendations for Food Classification, ISO 26642- Therefore, we needed to measure glycemic index of bread and rice according to the standard method. In the previous study, participants were those with type 2 diabetes and used glycemic control medications that did not meet the inclusion criteria based on the standard method. In the present study, participants were selected from healthy individuals. Therefore, lines 42 to 45 were deleted and the following text was replaced.

... ~~In addition, the study of GI values (16) carried out in Iran date back more than 20 years which the varieties of flour and wheat used in baking bread as well as baking methods have substantially changed during the past 20 years in Iran which therefore renders the previously reported GI values unreliable….~~ In addition, in 1997, the glycemic index of traditional breads and rice was measured in people with type 2 diabetes, which was incompatible with the standard method for GI Determination (18, 19).

4. Please modify the line 45. (Repetition in the “the results of this study”)

Response:

Thank you for this observation. This sentence has been revised accordingly (Line 51).

~~in future research projects~~. ~~The results of~~ This study can help

5. Please explain about the flours which used for every of these wheat breads, are there any differences between the sangak, barbari, lavash, tafton?

Thank you for this observation. According to Institute of Standards and Industrial Research of Iran, 103, 5th Revision, in Iran, different breads are made with flours that have different extraction rates. Barbari is made of white flour (just endosperm), and has the lowest (82%) extraction rate. This bread also has a porous internal structure, and the longest baking time. In contrast, Sangak bread has the highest extraction rate of 88%, and has the longest rising time. Lavash and Tafton bread have a very short baking time with 86-87% extraction rate.

The reference of these data came:

Institute of Standards and Industrial Research of Iran, Islamic Republic of Iran 103 5th. Revision the book: Nasser Rajabzadeh. Bread Technology, 6th. 2019. University of Tehran press.

Therefore, the following clarifications have been added to the text in lines 117-118.

The selected test foods were Lavash and Taftoon(100% wheat flour with 86-87% extraction rate(ER)), Barbari (100%wheat flour with 82% (ER)), and Sangak(100%wheat flour with 88% (ER)) breads

6- Please compare your results with the study done by Esmaeili M et al (ref 16). There are great differences between your results; however, it seems that the specifications and features of the breads in two studies are same.

Response:

Thank you for this observation. The reason may be that there are two important differences in the method of these two studies. One of the differences is the type of participants. In the Esmaili et al.'s study, participants had type 2 diabetes and were using glucose control medications who, according to the standard method, did not meet the inclusion criteria; whereas, in our study participants were healthy people who did not take any pills and had no disease. The second difference would be the measurement of blood glucose from venous blood. Based on the standard method, due to reduced inter-individual variation, it is best to measure from capillary blood. Consequently, the present study follows the exact standard method and capillary blood was taken from the finger-prick to measure blood glucose. Therefore, the results of Esmaili et al.'s study are inconsistent with the results of our study.

The following has been added to the introduction section in line 45-47

In addition, in 1997, the glycemic index of traditional breads and rice was measured in people with type 2 diabetes, which was incompatible with the standard method for GI Determination (18, 19).

7. The values of portion size and serving size reported in the tables 1 and 3 are confusing. Why it reported in different amounts? You compared the 50 gr soluble glucose with amounts of every foods which contains 50 g available carbohydrate; I suggest which report the actual amounts. It so better to have a clear logic for reporting serving size, e.g. based on calorie, carbohydrate, etc.

Response:

Thank you for this observation. The portion Size in Table 1 is the amount of bread or rice containing 50 grams of available carbohydrates (starch + sugar) that each participant should eat on the day of testing to measure blood glucose for determining glycemic index value.

The Serving Size in Table 3 is a measure of glycemic load per 1 serving of bread and rice (30gr).

Regarding that the GI of lentil is constant, and also in the two mixed adaspolo the ratio of lentil-8 to rice was 1:2; the justifications about differences in the GI is not convincing. Please more .discuss

Response:

Thank you for this observation. Unable to explain with current available information. As answering this question requires molecular and botanical studies, with the present information in our study, there is no other reason than the effect of brown rice bran on reducing the glycemic index of Adaspolo made with brown rice.

The following clarifications have been added to the text in lines 220-221

decreasing GI (34) but to address this aspect, it is recommended to conduct a study regarding molecular and botanical structure.

Reviewer 2:

Glycemic Index (GI) Values for Major Sources of Dietary Carbohydrates in Iran

In this paper, glycemic indices have been calculated and reported for major carbohydrate sources in Iranians diet. The research is well designed and well-written. I have just small comment on this manuscript:

In table 2, there is no need for the last column (95%CI). If the authors insist to report CI, they are better to remove the column for standard deviation.

Response:

Thank you for this suggestion. The Table 2. has been revised accordingly.

Table 2. Baseline Characteristics of Participants

Characteristic N=12	Mean	SD	~~95% CI~~
Gender (N (%)) Male Female	 4(33.3) 8(66.7)		
Age (years)	29.1	5.3	~~(25.7,32.5)~~
Weight (Kg)	67.03	8.2	~~(61.8,72.2)~~
Height (m)	1.66	0.1	~~(1.59,1.72)~~
BMI (Kg/m^2)	24.4	3.3	~~(22.2,26.5)~~
Fasting Blood glucose (mmol/L)	4.8	0.3	~~(4.5,5.0)~~
Systolic Blood pressure (mmHg)	100.7	0.7	~~(100.2,110.2)~~
Diastolic Blood pressure (mmHg)	70.7	0.4	~~(70.4,80.1)~~

Mean ± Standard deviation for twelve participants

Reviewer 3

Introduction:

1- "Nutrition transition in developing contries ---- fruit and vegetables". delete this sentence.

Response:

Thank you for this suggestion. The paragraph has been revised accordingly. The lines from 26 to 28 were deleted.

~~...Nutrition transitions in developing countries are often characterized by an overconsumption of energy, especially from unhealthy fats, added sugar and refined grains, in place of healthy portions of fiber-rich whole grains, fruits, and vegetables~~…

2- Begin the second paragraph about the glycemic index.

Response:

Thank you for this recommendation. This sentence has been revised accordingly (line 29-30).

~~A particular characteristic of refined grains is their relatively high glycemic index (GI).~~ Glycemic index (GI) is one of the indicators of carbohydrate-containing foods,

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3- What is the importance of determining glycemic index. This topic is fully describe.

Response:

Thank you for your valuable suggestion. Additional information has been added to the text for clarity to the Line 35-37 and 40-42. The Introduction was revised accordingly to provide the necessary information.

Refined grains such as bread and white rice are the major sources of total calories in the Iranian diet, comprising 55-60% of consumed calories (15, 16) which generally have high glycemic index(8, 17). The International Table of Glycemic Index provides a comprehensive reference for GI values (8, 17). According to the table, white wheat-based bread and white rice GI values can vary widely depending on variety, the amylose content of rice, cooking, processing, physical size and the forms and texture of bread (8, 17). Therefore, locally estimated GI values of traditional staple food in Iran are urgently needed for a better understanding of their relation with cardiometabolic health outcomes in future research projects. However, specific GI values for Iranian rice and bread are not included in this table (8, 17). In addition, in 1997, the glycemic index of traditional breads and rice was measured in people with type 2 diabetes, which was incompatible with the standard method for GI Determination (18, 19). Furthermore, varieties of brown rice have recently become partially available in the country but no data on GI values is available. This study can help gather reliable data for the comprehensive international table of GI values, which can be used for ongoing research regarding GI, as well as in clinical practice. Hence, the study objective was to measure the GI values of “Barbari,” “Taftoon,” “Sangak,” and “Lavash” (as traditional flatbreads), white rice, lentil-white rice mixtures (Adaspolo), as well as brown rice, mixed lentils and brown rice, industrial barley and rye bread.

1- Some of sentence have no reference. be corrected.

Thank you for this observation. This has been revised accordingly throughout the text.

Introduction

Line 32: glucose or white bread (7, 8).

Line 32: The scale ranges from 1-100(8).

Line 36: which generally have high glycemic index (8, 17).

Line 37: a comprehensive reference for GI values (8, 17).

Discussion

Line 198: and pancreatic ∝-amylases(28, 30).

5- One of the limitations of this study is the wide range of body mass index. It would be better if people with overweight were not included in the study. Insulin resistance was determined in individuals and Insulin resistant individuals were excluded from the study. People with a BMI greater than 25 may have insulin resistance, which may affect glycemic response. This is one of the major limitations of this study.

Response:

Thank you for this observation. This could be one of the limitations of this study. However, the standard method does not mention limiting participants to those with a normal BMI range; it only states that people who are healthy and do not use any drug can be included in the study. In addition, many other studies that measure glycemic index included participants with BMI above 25. Besides, the inclusion criteria of the study was healthy adults with Body Mass Index between ≤18.5 and ≤30kg/m2 and the exclusion criteria was having fasting blood glucose (FBG) ≥5.5mmol/l; those with chronic diseases (cardiovascular diseases, diabetes type 1 & 2, hypertension, metabolic syndrome, cancer, renal disorders, digestive tract diseases, celiac).

Therefore, the people with metabolic syndrome were excluded. Finally, the mean body mass index (BMI) of the participants was 24 kg/m^2 with CI 95% (22.2, 26.5).

The following clarifications have been added to the text in lines 72-73

Exclusion criteria were having fasting blood glucose (FBG) ≥5.5mmol/l; those with chronic diseases (cardiovascular diseases, diabetes type 1 & 2, hypertension, metabolic syndrome, cancer, renal disorders, digestive tract diseases, celiac);

6- exclusion criteria: those with any disease????????

Response:

Thank you for the observation. The following was added to the lines 72-73

≥5.5mmol/l; those with chronic diseases (cardiovascular diseases, diabetes type 1 & 2, hypertension, metabolic syndrome, cancer, renal disorders, digestive tract diseases, celiac);

7- Sample size is very small.

Response:

Thank you for noting this. Yes, this is one of the limitations of the study which has been explained through lines 227 to 228. With all due respect, according to the International Standard-Determination of the Glycemic Index and Recommendations for Food Classification- ISO 26642, ten participants is considered sufficient number for determination of GI value. Additionally, numerous studies of ten participants have been conducted for determining GI values.

8- How bread samples are collected. this topic should be fully explained. Bread needs to be collected from different place throughout the city.

Response:

Thanks for your precision. Traditional breads were purchased from traditional bakeries located in the city. The bakeries' data were collected from the flour syndicate and then the bakeries themselves were randomly selected from different place throughout the city. Industrial bread rye and barley bread were made by Sahar Bread Company.

The following clarifications have been added to the text in lines 129 to 131.

The data of traditional breads bakeries were collected from the flour syndicate and then the bakeries themselves were randomly selected from different place throughout the city and the others were purchased from supermarkets.

9- methods of deteming of water, fat, carbohydrate, sugar, others????

Response:

Thanks for your precision. Based on the standard method and methods used in previous studies, if present, information regarding the composition of food could be used directly from the Food Composition Table. Therefore, the macronutrients were obtained from a study conducted by Nutrition Research Group at National Nutrition and Food Technology Research Institute, Shaheed Beheshti University of Medical Sciences provided this information. This information was published in the book named Iranian Food Compositions Table in 1396.

The following clarifications have been added to the text in lines 103 to 104

The compositional information of the test food has been adapted from Iranian Food Compositions table provided in Table 1(22)

10- taking blood from middle and ring finger?? is it necessary

Response:

Thank you for this observation. The standard method for determining glycemic index refers only to finger-prick blood, with no restrictions to any fingers, and no other articles refer to a particular finger blood sample. In this study blood was taken from middle and ring finger.

The following clarifications have been added to the text in lines 107

..and also by lancet from the middle and ring finger…

---

result

11- mean and SD of BMI and age should be reported.

Response:

Thank you for this suggestion. This has been included in line 159.

The study included 4 men and 8 women, with a mean age of 29± 5.3, mean body mass index (BMI) of 24 ±3.3 kg/m^2,

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12-Why systolic and diastolic blood pressure has been reported

Response:

Thank you for this observation. With all due respect, our research should be in line with other papers concerning GI determination in which systolic and diastolic blood pressure were reported.

discussion

13-Sangak, Taftoon and Berber are whole grain. But in this study, glycemic index was higher than lavash bread. explain completely.

Thank you for this observation. The following clarifications have been added to the text in lines 202 to 207.

In line with this study, the results of Musa-Veloso et al.'s meta-analysis indicated that consuming bread and pasta made with whole-wheat flour (compared with refined-wheat bread and pasta) would not reduce postprandial blood glucose. Another reason suggested by the studies is that fact that larger particle size of whole grains comparing fine flour might be important in preserving the glycemic benefits of wholegrain wheat, due to the effect of cell-wall protection against amylase having a beneficial effect on blood glucose response(30, 31, 34)

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 8 Apr 2020

Dear AE,
My comments on the revised manuscript are as follows:
Abstract
- Please report the GI of different bread and rice that researchers tested, instead of reporting a range of low, moderate, and high GI.
- Key words: Delete the carbohydrate and report different foods (bread and rice) whose GIs were determined.
Introduction
- Line 48: which country??? To date, no data were released for brown rice??
- Line 54, what does it mean? Traditional flatbreads
- Line 55: name of the company??
Material and methods:
- Line 71: please correct the following criteria ≤18.5 and ≤30kg/m2
- Add number of registration in IRCT or other clinical trial registration.
- The number of the ethics committees is not correct? Please check again.
- Line 69: please report the date on which the participants entered the study.
- How did the authors calculate the sample size? please refer to the paper that reported that this sample size is sufficient.
- Line 107: “also by lancet from the middle and ring finger” (please add a reference)
- Please report the sampling of bread?
Results
- Line 159: Decimal number report????? “29. ---- + 5.3¬¬ mean body mass index (BMI) of 24. --- +3.3 kg/m2, mean systolic blood pressure of 100.--- ±0.7mmHg, mean diastolic blood pressure of 70. ----±0.4mmHg”
- I don't understand why blood pressure should be reported.
Discussion:
- Line 203: please add a reference
- The references 19 and 20 are the same??
- Table 3: reference for available carbohydrates????
Thanks.

REFEREE: Associate Editor | **Revision** (1) 13 Apr 2020

Dear EIC,

The authors should reply the reviewer's comments carefully.
Thanks.

REFEREE: EIC | **Revision (1)**

19 Apr 2020

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs minor revision. Please follow their comments as requested.
Thanks.

OPEN PEER REVIEW

Revision (2)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Re: The second revised manuscript submission **Manuscript ID** 99793
Title: " **Glycemic Index (GI) Values for Major Sources of Dietary Carbohydrates in Iran**"

Journal: International Journal of Endocrinology and Metabolism

Date: 2020/2/5

To: Editor-in-Chief of International Journal of Endocrinology and Metabolism

Dear Prof. Fereidoun Azizi and Dr. Azita Zadeh-Vakili,

Thank you very much for your email dated April 27th 2020, regarding the evaluation of our manuscript and the opportunity to revise and resubmit the paper. We have taken each critique and comment very seriously, and now submitted a revised version in response to the reviewers' comments.

As instructed, we carefully consider all issues mentioned in the reviewers' comments and submit an itemized, point-by-point response to them. We prepared a revised copy of our manuscript with changes highlighted according to your revisions checklist.

I did my best as to reduce the wording down to the expected number, however, due to addition of the referees' comments it unfortunately exceeded the word limit and is now 4731.

Once again, thank you for inviting us to respond to the reviewers' comments and revise our manuscript.

I hereby attest that I have full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

We hope that you will find our manuscript acceptable for publication in the journal International Journal of Endocrinology and Metabolism

Sincerely,

Thank you for your very careful and extensive review of the manuscript. We hope that the revisions and clarifications provided will help improve the text and meet with your expectations. Please note the following:

Lines that are notated in the response sections may differ slightly from the corresponding lines mentioned in the comments. These differences are due to changes made to the text in accordance with the referees' comments and suggestions.

Reviewer 1:

Comments

Abstract

1. Please report the GI of different bread and rice that researchers tested, instead of reporting range of low, moderate and high GI.

Response:

Thank you for this observation. Lines 14-16 have been revised accordingly to provide clarification.

~~the mixture of brown rice with lentils had the lowest GI (value of 55), while barley bread and brown rice had moderate GIs of 60 and 69, respectively. All wheat breads, rye bread and white rice (with or without lentils) had high GIs, ranging from 71 to 99.~~

The GI values of the following breads were: Barley 66, Lavash 72, Taftoon 79, Sangak 82, rye 84, and Barbari 99. The GI values for brown and white rice were 65 and 71, respectively. The mixture of brown rice with lentils had GI value of 55 and 79 with white rice.

2. Key words: Delete the carbohydrate and report different foods (bread and rice) whose GIs were determined.

Response:

Thank you for this observation. Lines 23 has been revised accordingly to provide clarification.

Keywords: Glycemic index; Whole grains; ~~Carbohydrates~~ Bread; Rice; Diet.

Introduction

3. Line 48: which country??? To date, no data were released for brown rice??

Response:

Thank you for this observation. Line 44 has been revised accordingly to provide clarification.

have recently become partially available in ~~the country~~ Iran

4. Line 54, what does it mean? Traditional flatbreads

Response:

Thank you for this observation. Line 42-43 has been revised accordingly to provide clarification.

"GI values of "Barbari," "Taftoon," "Sangak," and "Lavash" (as ~~traditional~~ flatbreads)"

"values of flatbreads including Barbari, Taftoon, Sangak, Lavash,"

5. Line 55: name of company??

Response:

Thank you for this observation. Line 49 have been revised accordingly to provide clarification.

, industrial barley and rye bread (Sahar Bread. Co).

Material and methods:

6. Line 71: please correct the following criteria ≤18.5 and ≤30kg/m2

Response:

Thank you for this observation. Line 65 have been revised accordingly to provide clarification.

Body Mass Index (BMI) between ≥ ≤18.5 and ≤30kg/m^2.

7. Add number of registration in IRCT or other clinical trial registration.

Response:

Thank you for this observation. Line 74 have been added.

This study was registered at www.irct.ir, Identifier: IRCT2016011125947N1

8. The number of ethics committee is not correct? Please check again.

Response:

Thank you for this observation. The number of ethic committee was rechecked.

That was correct. The number was for 2015.

9. Line 69: please report the date on which the participants entered the study.

Response:

Thank you for this observation. Line 69 has been revised accordingly to provide clarification.

from 21st November 2016 – 12th March 2017

10. How did the authors calculate the sample size? please refer to paper that reported that this sample size is sufficient.

Response:

Thank you. For the sample size, we utilized the instructions provided by the International Standard-Determination of the Glycemic Index and Recommendations for Food Classification-ISO 26642(1), and the previous studies (2-3-4-5) that determined GI values. In addition, Brouns asserted the inclusion of ten participants provides a reasonable degree of power(80%) and precision of measuring GI(6) in page 147-148. International Standard- - ISO 26642 for Determination of the Glycemic Index and Brouns F. repoted that 10 participants is sufficient for determining of GI value(1-6).

To further clarify, The following box is the part of International Standard- - ISO 26642 for Determination of the Glycemic Index about the required number of sample size:

Page3: Section 5.3;

5.3 Subjects

5.3.1 Inclusion and exclusion criteria

Selection of a minimum of 10 healthy subjects shall be made on the basis of:

Page7: Section 7.2.2;

Outliers (2.9) can be excluded from the calculation, but a minimum of 10 subjects should still be available for the tests to have statistical validity.

The reference:

1- International Standards Organization. ISO 26642:2010. Food products - Determination of the glycaemic index (GI) and recommendation for food classification. 2010-09-23.

The following references are the previous studies in which GI value was determined with 10-12 participants:

2- George R, Garcia AL, Edwards CA. Glycaemic responses of staple South Asian foods alone and combined with curried chicken as a mixed meal. Journal of human nutrition and dietetics : the official journal of the British Dietetic Association. 2015;28(3):283-91.
3- Kouame AC, Kouassi KN, N'Dri Y D, Amani NG. Glycaemic index and load values tested in normoglycemic adults for five staple foodstuffs: pounded yam, pounded cassava-plantain, placali, attieke and maize meal stiff porridge. Nutrients. 2015;7(2):1267-81.
4- Mehio Nahla Hwalla Baba Zuheir Habb Z. Glycemic and Insulinemic Responses of Normal Subjects to Selected Meals Commonly Consumed in the Middle East. Journal of Nutritional & Environmental Medicine. 2009;7(4):275-86.
5- Goletzke J, Atkinson FS, Ek KL, Bell K, Brand-Miller JC, Buyken AE. Glycaemic and insulin index of four common German breads. European journal of clinical nutrition. 2016.

The reference:

6-Brouns F, Bjorck I, Frayn KN, Gibbs AL, Lang V, Slama G, et al. Glycaemic index methodology. Nutrition research reviews. 2005;18(1):145-71

The references were added to Line 148 to provide clarification.

; accordingly 16 participants were considered (19, 22, 25-28).

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11. Line 107: “also by lancet from the middle and ring finger” (please add a reference)

Response:

Thank you for this observation. Line 102 has been revised accordingly.

the middle and ring finger (19, 22)

12.Please report the sampling of bread?

Response:

Thank you for this observation. Lines 124-132 has been revised accordingly to provide clarification

"The information on distribution and supply of flours at various bakeries in Tehran were collected from both the Grain Organization and the Grain Research Institute. Due to the vast expanse of the city (Tehran), we divided the city into five areas (north, south, east, west, and center). In these areas, a complete list of existing bakeries were obtained from the Tehran Bakers' Union. Then, the bakeries were randomly selected from different areas of the municipality. The sampling method was performed by the statistician's research team. For each type of bread (Lavash, Barbari, Taftoon, Sangak), three bakeries from each area were selected based on the randomization table using a random number table (Microsoft Excel 2010). As a result, each type of breads were purchased from 15 different bakeries."

Results

12. Line 159: Decimal number report????? "29. ---- + 5.3¬¬, mean body mass index (BMI) of 24. --- +3.3 kg/m2, mean systolic blood pressure of 100.--- ±0.7mmHg, mean diastolic blood pressure of 70. ----±0.4mmHg"

Response:

Thank you for this observation. Lines 119-120 have been revised accordingly to provide clarification.

a mean age of 29.1± 5.3, mean body mass index (BMI) of 24.4+3.3 kg/m^2,

13. I don't understand why blood pressure should be reported.

Response:

Thank you for this observation. Lines 119-120 have been omitted and Table 2 revised accordingly.

~~mean systolic blood pressure of 100±0.7mmHg, mean diastolic blood pressure of 70±0.4mmHg, and fasting blood glucose of 4.8±0.3mmol/L~~ (Table 2).

Table 2. Baseline Characteristics of Participants

Characteristic N=12	Mean	SD
Gender (N (%)) Male Female	 4(33.3) 8(66.7)	
Age (years)	29.1	5.3
Weight (Kg)	67.03	8.2
Height (m)	1.66	0.1
BMI (Kg/m^2)	24.4	3.3
Fasting Blood glucose (mmol/L)	4.8	0.3
~~Systolic Blood pressure (mmHg)~~	~~100.7~~	~~0.7~~
~~Diastolic Blood pressure (mmHg)~~	~~70.7~~	~~0.4~~

Discussion:
14. Line 203: please add a reference

Response:

Thank you for this observation. Line 213 has been revised accordingly to provide clarification.

not reduce postprandial blood glucose(35).

15. The references 19 and 20 are the same??

Response:

Thank you for this observation. That was corrected.

International Standards Organization. ISO 26642:2010. Food products - Determination of the glycaemic index (GI) and recommendation for food classification. 2010-09-23.
20. Wolever TM, Brand-Miller JC, Abernethy J, Astrup A, Atkinson FS, Axelsen M, et al. Measuring the glycemic index of foods: interlaboratory study. The American journal of clinical nutrition. 2008;87(suppl):247s-57s.

16. Table 3: reference for available carbohydrate????

Response:

Thank you for this observation. It was calculated as the sum of starch and sugars based on Iranian Food Compositions Table. The reference: “Esmaeili M, Hoshyarrad A. The composition table of Iranian food. 978-964-95160-1-1, editor. Shahid Beheshti University of Medical Sciences, School of Nutrition & Food Technology, Islamic Republic of Iran: University of Medical Sciences, School of Nutrition & Food Technology, Islamic Republic of Iran; 2016.”

Therefore, Lines 150-151 and the footnote of table 3 have been revised accordingly to provide clarification and the reference was add.

Lines 150-151 :“The glycemic load (GL) of each test food was calculated using (GI of test food × available carbohydrate in a serving of test food (g))/100, available carbohydrate was calculated as the sum of starch and sugars (21) .”

The footnote of table 3. ^: available carbohydrate was calculated as the sum of starch and sugars(21)

OPEN PEER REVIEW

Revision (2)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Associate Editor | **Revision** (2) 5 May 2020

Dear EIC,
The authors replied the reviewer's comments carefully, so I am pleased to inform you that the manuscript is acceptable for publication.
Thanks.

REFEREE: EIC | **Revision** (2) 6 May 2020

Dear Authors,
The manuscript is acceptable for publication; however, it is suggested to delete Table 2 and add its data i.e. baseline characteristics of the study participants to the first paragraph of the section of "Results".
Thanks.

OPEN PEER REVIEW

Revision (3)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Re: The third revised manuscript submission **Manuscript ID** 99793
Title: " **Glycemic Index (GI) Values for Major Sources of Dietary Carbohydrates in Iran**"

Journal: International Journal of Endocrinology and Metabolism

Date: 2020/2/5

To: Editor-in-Chief of International Journal of Endocrinology and Metabolism

Dear Prof. Fereidoun Azizi and Dr. Azita Zadeh-Vakili,

Thank you very much for your email dated May 6th 2020, regarding the evaluation of our manuscript and the opportunity to revise and resubmit the paper. We have taken comment very seriously, and now submitted a revised version in response to the reviewer' comment.

As instructed, we carefully consider all issues mentioned in the reviewer' comment and submit an itemized, point-by-point response to them. We prepared a revised copy of our manuscript with changes highlighted according to your revisions checklist.

I did my best as to reduce the wording down to the expected number, however, due to addition of the referees' comments it unfortunately exceeded the word limit and is now 4696.

Once again, thank you for inviting us to respond to the reviewers' comments and revise our manuscript.

I hereby attest that I have full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

We hope that you will find our manuscript acceptable for publication in the journal International Journal of Endocrinology and Metabolism

Sincerely,

We hope that the revisions and clarifications provided will help improve the text and meet with your expectations.

Reviewer 1:

EIC Decision:

The manuscript is acceptable for publication; however, it is suggested to delete Table 2 and add its data i.e. baseline characteristics of the study participants to the first paragraph of the section of "Results".

Response:

Thank you for this observation. The table 2 was removed and lines 151-153 have been revised accordingly.

"The study included 4 men and 8 women, with a mean age of 29.1+ 5.3, Height (m) 1.66± 0.1, weight (kg) 67.03± 8.2, mean BMI of 24.4±3.3 kg/m^2, and FBS (mmol/L) 4.8± 0.3. The mean GI and GL value of all the test foods is given in Table 2 and Figure 1"

OPEN PEER REVIEW

Revision (3)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: EIC | **Revision** (3) 10 May 2020

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.