# **Omid Toupchian**



#### **Contacts**

E.mail: o.toupchian@gmail.com

Tel: +98-58-3151-3445

### **Skills and interests**

- Meta-analysis studies
- Clinical nutrition
- Epidemiological nutrition

#### Member

North Khorasan University of Medical Sciences, School of Health

## PHD IN NUTRITION AND DIET THERAPY

### **Experience**

- Assistant professor of north Khorasan university of medical sciences, school of public health (Aprill 2018 until now)
- Research director of Health faculty (2020 until 2021)
- Member of "Development and improvement of nutrition" and "food safety and health" committee (2020 until 2021)
- Member of "Research, technology and innovation Accreditation" committee
- Manager of research development and evaluation of university (2021 until 2023)
- Member of Medical Information Council (2022 until now)
- Member in the research council of the student research and technology committee of the university (2023 until now)
- Member of Family and Youth Support committee of the Research and Technology Vice-Chancellor of the University
- Member of Joint working group between educational and research departments (2021 until 2022)
- Scientific advisor for Bachelor of Nutrition students (2018 to 2022)
- Member of Equipment committee of the research and technology vice-chancellor of the university (2022 until 2023)
- Member of Strategic Committee on University Research Centers Program (2022 until now)
- Member of the Universites 'Central Council of the Relations Office with Industry and Society (2022 until 2023)

## Experience. Con.

- Member of Technology Council in university (2022 until 2023)
- Visiting Member of the Research Council of Nursing Faculty (2021 until 2022)
- Member of the Scientific Committee of Country Autumn technology School (in 2021)
- Member of Screening Committee of Ethics in Medical Research Group (2021 until 2023)
- Member of University research council (2021 until 2023)
- Member of University Research internationalization and Research Networking
- Member of University Publishing Council (2021 until 2023)
- Member of University Research Development Workgroup (2020 -2023)
- Member of University Health Technology Workgroup (2021 2023)

### **Education**

Date	Place	Title	Average
May 2016	<b>Tehran University of Medical Sciences</b> , Nutrition	PhD	17.04
Feb 2011	Tabriz University of Medical Sciences, Nutrition	MS	17.4
Feb 2007	Tabriz University of Medical Sciences, Nutrition	BS	17.1

## **Workshops:**

Course	Hours	Audience
Nutritional principles in COVID-19 pandemic	2	Faculty members of NKUMS
Principles of medicial nutrition therapy and interpretation of laboratory data	8	Dietitions of NKUMS
Medicial nutrition therapy in kidney diseases	12	Health Vice-Chancellor personnels of NKUMS
Medicial nutrition therapy in diabetes	12	Health Vice-Chancellor personnels of NKUMS
Medicial nutrition therapy in critically ill patients	12	Health Vice-Chancellor personnels of NKUMS
How to have a healthy diet	2	Students and faculty members of NKUMS
How to prevent overweight and obesity	6	Health workers of NKUMS
Drug therapy in weight managment	2	Students and faculty members of NKUMS
Getting to know the rules of research and the use of systems	4	Newly hired faculty members of NKUMS
How to have a healthy diet	16	Petrochemical employees of North Khorasan

# **Projects:**

Date	Title	Organizer and held place
2009	Serum resistin levels and stress in NAFLD patients	Tabriz University of Medical Sciences, Tabriz, Iran
2009	Double-blind clinical trial in NAFLD patients: Effects of two different isocaloric energy- restricted diets	Tabriz University of Medical Sciences, Tabriz, Iran
2013	Effects of purified DHA on effective factors on vascular thickness and intima-media smooth muscle proliferation in type 2 diabetic patients	Tehran University of Medical Sciences, Tehran, Iran
2013	The effect of DHA-rich fish oil supplement on PPARy signaling pathway related to lipid metabolism in PPARÛ Pro12Ala genetic variants of patients with type 2 diabetes	Tehran University of Medical Sciences, Tehran, Iran
2014	Relationship between sleep and dietary patterns with quality of life in elderly people covered by health centers in zone 5 in Tehran city.	Tehran University of Medical Sciences, Tehran, Iran
2016	The effect of DHA supplementation on serum levels of Apo CIII, Apo B48, Apo AI and Apo AII in type 2 diabetic patients,	Tehran University of Medical Sciences, Tehran, Iran

2016	The effect of DHA-enriched fish oil on the expression levels of p53, p21, NF-KB in PBMC of T2DM patients	Tehran University of Medical Sciences, Tehran, Iran
2017	Combinative effect of DHA-enriched fish oil and candidate SNPs related to obesity, lipid metabolism and diabetes on changes of biochemical and anthropometric parameters in T2DM patients who received DHA-purified fish oil or placebo	Research Institute for Endocrine Sciences, Tehran, Iran
2018	Investigation the prevalence of food insecurity and its related factors in households Bojnourd in 2018	North Khorasan University of Medical Sciences
2019	Frequency and Factors Related to Food Insecurity in Households of Bojnourd City	North Khorasan University of Medical Sciences, Bojnurd, Iran
2019	Effect of zinc supplementation on anthropometric measurements and body composition: a systematic review and meta-analysis of randomized controlled clinical trials	North Khorasan University of Medical Sciences
2019	The effects of vitamin D supplementation on fibroblast growth factor 23: A systematic review and meta-analysis of RCTs	North Khorasan University of Medical Sciences, Bojnurd, Iran

	2019	The association between maternal dietary pattern and perinatal outcomes: A systematic review and meta-analysis of cohort studies	North Khorasan University of Medical Sciences, Bojnurd, Iran
	2020	The Effect of Meal Frequency On Biochemical Cardio-Metabolic Factors: A Systematic Review and Meta-Analysis of Randomized Controlled Trials	North Khorasan University of Medical Sciences, Bojnurd, Iran
	2021	The association between maternal dietary patterns and assisted reproductive technology outcomes using meta-analysis approach	North Khorasan University of Medical Sciences, Bojnurd, Iran
	2022	The effects of grape on liver and renal biomarkers in adults: Systematic Review and Meta-Analysis of Randomized Controlled Trials	North Khorasan University of Medical Sciences, Bojnurd, Iran
	2022	Effects of Probiotics Supplementation on Anthropometric Measures and body composition in Patients with Type 2 Diabetes: A Systematic Review and Meta-Analyses of Randomized-Controlled Trials	North Khorasan University of Medical Sciences, Bojnurd, Iran
	2023	Formulation Design of whey protein-alginate gum hydrogel containing noisome as iron carrier	North Khorasan University of Medical Sciences, Bojnurd, Iran

2022	Optimization of gluten-free doughnut formulation enriched with quinoa flour	North Khorasan University of Medical Sciences, Bojnurd, Iran
2023	Design, implementation and evaluation of the diet therapy training web application for nutritional students (and graduates)	North Khorasan University of Medical Sciences, Bojnurd, Iran

### **Publications:**

- Omid Toupchian, Sepideh Soltani, Elham Hosseini-Marnani, Fatemeh Eslami, Salar Poorbarat, Cain C. T. Clark, Javad Heshmati, Rezvan Rajabzade, Shima Abdollahi. Lifestyle Changes and COVID-19 Infection: A Cross-Sectional Study. Journal of Nutrition and Food Security 2023 [in press].
- 2) M. Morvaridzadeh, M. Qorbani, Z. Shokati Eshkiki, M. D. Estêvão, N. Mohammadi Ganjaroudi, O. Toupchian, et al. The effect of almond intake on cardiometabolic risk factors, inflammatory markers, and liver enzymes: A systematic review and meta-analysis. Phytother Res 2022 Vol. 36 Issue 12 Pages 4325-4344. [DOI: 10.1002/ptr.7622].
- 3) Fatemeh Meshkini, Sepideh Soltani, Cain CT Clark, Vivian Tam, David Meyre, Omid Toupchian, Sahar Saraf-Bank, Shima Abdollahi\*. The effect of vitamin D supplementation on serum levels of fibroblast growth factor-23: A systematic review and meta-analysis of randomized controlled trials. The Journal of Steroid Biochemistry and Molecular Biology . 2022 Vol. 215 Pages 106012. [https://doi.org/10.1016/j.jsbmb.2021.106012].
- 4) Mojgan Morvaridzadeh, Shahram Agah, Pooya Alibakhshi, Hafez Heydari, Ava Sadat Hoseini, Andriko Palmowski, <u>Omid Toupchian</u>, Shima Abdollahi, Gholamreza Rezamand, Javad Heshmati. *Effects of Calcium and Vitamin D Co-supplementation on the Lipid Profile: A Systematic Review and Meta-analysis*. Clinical therapeutics. 2021 Vol. 43 Issue 9 Pages 274-296 [DOI: 10.1016/j.clinthera.2021.07.018].

- Mojgan Morvaridzadeh, Shahram Agah, M. Dulce Estêvão, Ava Sadat Hosseini, Hafez Heydari, Omid Toupchian, Shima Abdollahi, Emma Persad, Ahmed Abu-Zaid, Gholamreza Rezamand, Javad Heshmati. Effect of saffron supplementation on oxidative stress parameters: A systematic review and meta-analysis of randomized placebo-controlled trials. Food Science & Nutrition. 2021 Vol. 9 Issue 10 Pages 5809-5819 [DOI: 10.1002/fsn3.2463].
- 6) Omid Toupchian, Shima Abdollahi, Amin Salehi-Abargouei, Javad Heshmati, Cain C. T. Clark, Mohammad Hasan Sheikhha, Hossein Fallahzadeh, Hassan Mozaffari-khosravi. The effects of resveratrol supplementation on PPARα, p16, p53, p21 gene expressions, and sCD163/sTWEAK ratio in patients with type 2 diabetes mellitus: A double-blind randomized clinical trial. Phytotherapy Research. 2021 Vol. 35 Issue 6 Pages 3205-3213 [DOI: 10.1002/ptr.7031].
- 7) Shima Abdollahi, Sepideh Soltani, Russell Souza J de, Scott Forbes C, Omid Toupchian, Amin Salehi-Abargouei. Associations between Maternal Dietary Patterns and Perinatal Outcomes: A Systematic Review and Meta-Analysis of Cohort Studies. Advances in Nutrition. 2021 Vol. 12 Issue 4 Pages 1332-1352 [DOI: 10.1093/advances/nmaa156].
- 8) <u>Toupchian O</u>, Abdollahi S. *Comparison of Calcium, Phosphorus, Iron and Zinc in Some Food Items with The Amounts Presented by Nutritionist Iv Software*. Journal of North Khorasan University of Medical Sciences. **2019** Dec 1;11(3):64-71 [DOI: 10.21859/nkjmd-110309] [In Persian].

- 9) Zeinab Naeini, Omid Toupchian, Akram Vatannejad, Gity Sotoudeh, Maryam Teimouri, Mostafa Ghorbani, Ensieh Nasli-Esfahani, Fariba Koohdani: Effects of DHA-enriched fish oil on gene expression levels of p53 and NF-κB and PPAR-GAMMA activity in PBMCs of T2DM patients: A randomized, double-blind clinical trial. Nutrition, Metabolism and Cardiovascular Diseases 2019 Vol. 30 Issue 3 Pages 441-447 [DOI: 10.1016/j.numecd.2019.10.012].
- 10) Shima Abdollahi, Amin Salehi-Abargouei, Omid Toupchian, Mohammad Hasan Sheikhha, Hossein Fallahzadeh, Masoud Rahmanian, Mahtab Tabatabaie, Hassan Mozaffari-Khosravi: The Effect of Resveratrol Supplementation on Cardio-Metabolic Risk Factors in Patients with Type 2 Diabetes: A Randomized, Double-Blind Controlled Trial. Phytotherapy Research. 2019 Vol. 33 Issue 12 Pages 3153-3162 [DOI: 10.1002/ptr.6487].
- 11) Shima Abdollahi, Amin Salehi-Abargouei, Mahtab Tabatabaie, Mohammad Hasan Sheikhha, Hossein Fallahzadeh, Masoud Rahmanian, Omid Toupchian, Elham Karimi-Nazari, Hassan Mozaffari-Khosravi: The effect of resveratrol supplementation on the expression levels of factors associated with cellular senescence and sCD163/sTWEAK ratio in patients with type 2 diabetes mellitus: study protocol for a double-blind controlled randomised clinical trial. BMJ Open 2019 Vol. 9 Issue 7 Pages e026337 [10.1136/bmjopen-2018-026337].

- 12) Shima Abdollahi, <u>Omid Toupchian</u>, Ahmad Jayedi, David Meyre, Vivian Tam, and Sepideh Soltani: **Zinc Supplementation and Body Weight: A Systematic Review and Dose–Response Meta-analysis of Randomized Controlled Trials.** Adv Nutr **2019** Vol. 11 Issue 2 Pages 398-411 [10.1093/advances/nmz084].
- 13) <u>Toupchian O</u>, Sotoudeh G, Mansoori A, Abdollahi Sh, Keshavarz SA, Djalali M, Nasli-Esfahani E, Alvandi E, Chahardoli R, Koohdani F: *DHA-enriched fish oil upregulates cyclin-dependent kinase inhibitor 2A (P16INK) expression and downregulates telomerase activity without modulating effects of PPARy Pro12Ala polymorphism in type 2 diabetic patients: A randomized, double-blind, placebo-controlled clinical trial.

  Clinical nutrition. 2018 Vol. 37 Issue 1 Pages 91-98 [10.1016/j.clnu.2016.12.007].*
- 14) Abdollahi Sh, Razmpoosh E, <u>Toupchian O</u>, Salehi- Abargoue A: *Nutritional Status of Patients with Chronic Kidney Disease in Iran: A Narrative Review Journal of Nutrition and Food Security* 2018 Vol. 3 Issue 1 Pages 51-59
- 15) Abdollahi Sh, <u>Toupchian O.</u> Azam K, Rahmati M, Honarkar Shafie E, Djafarian K: *Association Between Objectively Sleep Pattern and Obesity in the Elderly*.

  International Journal of Health Studies. **2016**; 2(2): 4-8.
- 16) Abdollahi Sh, <u>Toupchian O</u>, Rahmati M, Honarkar Shafie E, Djafarian K: *The association between obesity and quality of life among the elderly*. International Journal of Health Studies. **2016**; 2(2): 17-22.

- 17) <u>Toupchian O</u>, Mansoori A, Sotoudeh G, Djalali M, Keshavarz SA, Nasli-Esfahani E, Alvandi E, Koohdani F: *Effects of DHA supplementation on vascular function, Telomerase Activity in PBMC, expression of inflammatory cytokines, and PPARy-LXRα-ABCA1 pathway in patients with type 2 diabetes mellitus: study protocol for a randomized controlled clinical trial. Acta medica Iranica. 2016; 54(7): 410-7.*
- 18) Toupchian O, Sotoudeh G, Mansoori A, Nasli-Esfahani E, Djalali M, Keshavarz SA, Koohdani F: Effects of DHA-enriched fish oil on monocyte/macrophage activation marker sCD163, asymmetric dimethyl arginine (ADMA), and insulin resistance in type 2 diabetic patients. Journal of Clinical Lipidology. 2016; 10(4): 798-807 [10.1016/j.jacl.2016.02.013].
- 19) Mansoori A, Sotoudeh G, Djalali M, Eshraghian MR, Keramatipour M, Nasli-Esfahani E, Shidfar F, Alvandi E, <u>Toupchian O</u>, Koohdani F: *Docosahexaenoic Acid-Rich Fish Oil Supplementation Improves Body Composition without Influence of the PPARy Pro12Ala Polymorphism in Patients with Type 2 Diabetes: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial.* Journal of Nutrigenetics and Nutrigenomics. 2015; 8(4-6):195-204 [10.1159/000442792].
- 20) Honarkar Shafie E, Taheri F, Dorosty AR, Abdollahi Sh, <u>Toupchian O</u>: Food security status, Intelligence Quotients and associated factors in village of Qehi, Esfahan. Journal of Nutritional Sciences and Dietetics 2016. 2(1).

- 21) Zeinali F, Asadi Samani H, <u>Toupchian O</u>, Abdollahi Sh, Samadi M: *A Review of the Relationship between Dietary Glycemic Index and Glycemic load and Type 2 Diabetes*.

  Journal of Nutrition and Food Security **2016**; 1(1): 73-79.
- 22) <u>Toupchian O</u>, Abdollahi Sh, Samadi M, Zeinali F, Honarkarshafie E, Farsad AR, Norouzi A: *Knowledge and Attitude on Cardiovascular Disease Risk Factors and Their Relationship with Obesity and Biochemical Parameters*. Journal of Nutrition and Food Security **2016**; 1(1): 63-71.
- 23) Abdollahi Sh, Zeinali F, Azam K, <u>Toupchian O</u>, Djafarian K: *Identifying Major Dietary Patterns Among the Elderly in Tehran Health Homes.* Jundishapur Journal of Health Sciences **2015**; 7(4):26-34 [10.17795/jjhs-30395].
- 24) Mansoori A, Sotoudeh G, Djalali M, Eshraghian MR, Keramatipour M, Nasli-Esfahani E, Shidfar F, Alvandi E, <u>Toupchian O</u>, Koohdani F: *Effect of DHA-Rich Fish Oil on PPARy Target Genes Related to Lipid Metabolism in Type 2 Diabetes: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial*. Journal of Clinical Lipidology. 2015; 9(6): 770-7 [10.1016/j.jacl.2015.08.007].
- 25) Seyedrafie Arefhosseini, Mehrangiz Ebrahimi-Mameghani, Saadat Karimi, Omid Toupchian, Morteza Wahede Jabari: *Association between Leptin and Anthropometric Parameters, Lipid Profile and Energy and Macronutrients Intake in Young Subjects*. Medical Journal of Tabriz University of Medical Sciences. **2011**; 33(1):53-8.

26) Fatemeh Izadfar, Saba Belyani, Masomeh Pormohammadi, Simin Alizadeh, Mehrara Hashempor, Elaheh Emadi, Zohreh Sadat Sangsefidi, Mohammad Reza Jalilvand, Shima Abdollahi & Omid Toupchian. *The effects of grapes and their products on immune system: a review.* Immunological Medicine. 2023; May 9;1-5 [10.1080/25785826.2023.2207896].

### **Poster Presentations:**

- 1) Toupchian O, Farsad AR, Ebrahimi-Mameghani M, Comparison of obesity indices with each other and their association with lipid profile and fasting blood sugar, The First Iranian Congress of Metabolic Syndrome, 2008
- 2) Toupchian O, Farsad AR, Ebrahimi-Mameghani M, Study on the components of Met-S metabolic in obese patients, The First Iranian Congress of Metabolic Syndrome, 2008
- 3) Farsad AR, Toupchian O, Ebrahimi-Mameghani M, Nurmohammadi M, Knowledge and attitude about the role of nutrition in Met-S among outpatients in Sheikholraees Sub-Specialized Clinic of Tabriz, The First Iranian Congress of Metabolic Syndrome, 2008
- 4) Farsad AR, Toupchian O, Ebrahimi-Mameghani M, Knowledge and attitude about CVD risk factors and their association with lipid profile, The First Iranian Congress of Metabolic Syndrome, 2008
- 5) Toupchian O, Farsad AR, Ebrahimi-Mameghani M, Nurmohammadi M, Comparison of concordance in Met-S prevalence based on definitions of NCEP-ATPIII and IDF among outpatients in Sheikholraees Sub-Specialized Clinic of Tabriz, 10th Iranian Nutrition Congress, 2008.
- 6) Farsad AR, Toupchian O, Ebrahimi-Mameghani M, Correlation between lipid profile and glycosylated hemoglobin and obesity indices, 10th Iranian Nutrition Congress, 2008.
- 7) Toupchian O, Ebrahimi-Mameghani M, Arefhosseini SR, Khosh Baten M, Hagh Ravan S, Correlation between serum levels of resistin with anthropometric parameters in NAFLD patients, 11th Iranian Nutrition Congress, 2010.

- 8) Arefhosseini SR, Ebrahimi-Mameghani M, Karimi S, Toupchian O, Vahed Jabbari M, Karam Zadeh N, Emphasis of Regression analysis on effects of leptin (as a circulating peptide hormone) on the risk factors of atherosclerosis in young Iranians, 11th Iranian Nutrition Congress, 2010.
- 9) Arefhosseini SR, Ebrahimi-Mameghani M, Toupchian O, Maralani M, Resistin, Macronutrients and NAFLD, 11th Iranian Nutrition Congress, 2010.
- 10) Toupchian O, Rashid J, Ebrahimi-Mameghani M, Arefhosseini SR, Hagh Ravan S, Factors predictive of non-alcoholic fatty liver disease (NAFLD), 11th Iranian Nutrition Congress, 2010

## **Books:**

Title	Publisher	Authors	Туре
Krause Food and Nutrition Care process 2012	Heidary	Ahmad-Reza Dorosty-Motlagh Omid Toupchian Milad Daneshi Abbas Yousefinejad	Translation to persian
Modern nutrition in health and disease: nutrition in the intercellular regulation of drug and food interaction	Ashina, Fan Azar	Omid Toupchian Hanieh-Sadat Ejtahed Mahsa Jalili	Translation to persian

## **Teaching experience**

Course	Hours	Audience
Principle of nutrition	204	General medicine student
Medical terminology	48	Undergraduate student of nutrition
Health and food poisoning	34	Undergraduate student of nutrition
Food microbiology	68	Undergraduate student of nutrition
Biochemistry and principles of nutrition	34	Undergraduate student of Professional health engineering
Basic nutrition 2	48	Undergraduate student of nutrition
English for the Students of Nutrition	136	Undergraduate student of nutrition
Functional nutrition (theoretical)	72	Undergraduate student of public health
Functional nutrition (practical)	48	
Application of computer in nutrition science (practical)	68	Undergraduate student of nutrition
Ecology of food and nutrition	34	Undergraduate student of nutrition
Introductory biochemistry	34	Undergraduate student of nutrition
Metabolic biochemistry (theoretical)	48	Undergraduate student of nutrition
Metabolic biochemistry (practical)	34	Undergraduate student of nutrition
Principles of nutrition education and counseling (theoretical)	17	Undergraduate student of nutrition

Principles of nutrition education and	17	Undergraduate student of nutrition
counseling (practical)		
Medical nutrition therapy 2	34	Undergraduate student of nutrition
Internship in the field	300	Undergraduate student of nutrition
Nutrition for Special Groups	102	Undergraduate student of nutrition

### **Awards and honors**

Title	Year
Iran national science foundation (insf) grant for PhD thesis	2013
Rank 5 in the entrance exam of the master's degree in nutrition sciences	2007
Full PhD stipends and tuition waiver	2010-2016

### **Professional Affiliations**

Department of Nutrition and Public Health, School of Health, North Khorasan University of Medical Sciences, Bojnurd, Iran, 2018- Present

Department of Cellular and Molecular Nutrition, School of Nutritional Sciences and Dietetics, Tehran University of Medical Sciences, Tehran, Iran, 2010-2018

Health and Nutrition faculty, Tabriz University of Medical Sciences, 2007-2010

### **Dissertation (PhD)**

Effects of purified DHA on effective factors on vascular thickness and intima-media smooth muscle proliferation in type 2 diabetic patients, Tehran University of Medical Sciences, Tehran, Iran

Advisors: Dr. Fariba Koohdani & Dr. Giti Sotoudeh

Consultants: Dr. Seyed Ali Keshavarz, Dr. Mahmoud Djalali, Dr. Ensieh Nasli Esfahani