

Investigating the Impact of Globalization and Changes in Lifestyle and Eating Habits on the Cancer Prevalence

Abstract

In this article, a survey method is presented to investigate the impact of globalization and changes in lifestyle and eating habits resulting from it on the prevalence of cancer. The statistical population of this research includes all people with cancer who are undergoing treatment in the medical centers of Tehran. However, 151 patients were selected by the multi-stage cluster sampling method. Cochran's formula was used to determine the number of sample members. The tool for collecting data is a researcher-made questionnaire, the reliability of which has been confirmed by Cronbach's alpha method. Data analysis was also done using SPSS software. The proposed hypotheses were tested using Pearson's correlation and regression methods. The results show that globalization can cause changes in the lifestyle and eating habits of people through various ways, including considered advertisements on social networks and cyberspace, fashion trends, busyness, lack of time, and friends. Therefore, the consumption of processed and fast foods will increase and because of the above-mentioned factors, those people will become infected with cancer. It should be noted that busyness and lack of time to prepare healthy foods are the most important factors, and the least effect is due to fashion trends.

Keywords: *Globalization, Lifestyle, Eating habits, Cancer, Pearson correlation, Processed and unhealthy foods.*

**Ellias Aghili Dehnavi^{*1},
Niloofar Mahafel²**

¹ *Ph.D. Student, Regional Studies, Faculty of Law and Political Sciences, Department of International Relations, Allameh Tabataba'i university, Tehran, Iran*
ellias.aghili@yahoo.com,
Corresponding Author

² *BSc Audiology, Department of Audiology, Faculty of Rehabilitation, University of Isfahan (Medical Sciences) Isfahan, Iran,*
nilooFar4297@gmail.com

1. Introduction

Globalization can be considered one of the topics that have attracted a lot of attention around the world in recent years, and many researchers, especially in social sciences (sociology, politics, economics, communication, management, etc.) have published books and articles to investigate this issue and its effects on people's lives in different societies [1].

Furthermore, with the development and expansion of mass communication devices such as the Internet, satellite, radio, and television, this phenomenon has received considerable attention and has dominated all sciences; in such a way that scientists and researchers in fields such as culture, politics, economy, medicine, industry, etc. have investigated the consequences, results, and effects of globalization on different areas [2].

From the point of view of some scientists, globalization means westernization or Americanization, which gives way to globalization.

Globalization can be considered a process that has developed in all areas and affects them, and these effects are increasing with the advancement of recent telecommunication technologies. For example, nowadays, various western styles of life, including clothing and eating habits, and social and entertainment activities, have made their way to Iran immediately after their appearance, and these styles are modeled by teenagers [3].

Among the most important cultural effects of globalization, the following can be mentioned:

- 1) The export of cultural trends from mainly western countries and their influence and development in other countries. For instance, thousands of pages of information, news, and images are published all over the world from only a few Western news agencies every day, and they change the moral-social values of various societies in favor of the culture of Western societies.
- 2) The pulse of the cultural economy is only owned by a few large western companies such as Sony, Honda, McDonald's, etc., which by weakening other organizations and companies, have the greatest impact on people who are enthusiastic about technology.
- 3) Political, social and economic activities can affect or be affected beyond the national borders.
- 4) Interaction increases and a new global system is created.
- 5) The development of communication and its progress at the transnational level has created common challenges all over the world and their solution also requires global cooperation.
- 6) The customs of western life spread through satellite, the internet, film, etc. at a high speed in other countries, especially developing countries and third-world countries, and the young generation, without evaluating these cultures, has been defeated by this invasion and they have changed their culture and habits according to them [4].

As mentioned earlier, globalization and the expansion and development of technology which is caused by it can change lifestyles in different aspects. One of these important aspects that are also related to human health is the eating habit;

moreover, with the advent of globalization, we are witnessing a daily increase in the consumption of processed and fast foods. Cancer is a group of complicated diseases that may result from many reasons, from genetics to exposure to toxins. Additionally, a person's diet can also have a significant effect on certain types of cancer [5].

While there are immutable factors such as genetics that increase the risk of cancer; there are other factors that can be controlled to minimize the risk of infecting with various types of cancer. Studies have illustrated that more than 70% of the risk of cancer during life can be controlled by controllable factors such as following a correct and healthy diet. It is worth mentioning that a study in 2018 on more than 100,000 people showed that there is a connection between the consumption of highly processed foods and a significant increase of more than ten percent in some types of cancer [6].

Since globalization has caused a change considering the eating habits of people in different societies; therefore, it is necessary and important to check whether there is a significant relationship between globalization and the change in people's eating habits and the increase in the incidence of cancer.

2. Research background

A study was conducted to investigate the impact of globalization on the culture and lifestyle of underdeveloped and developing societies [7]. The results have shown that rapid economic globalization significantly changes business patterns, government policies, as well as people's lifestyles, ecosystems, health, and justice. These events accelerate the search for new economic, cultural, and political options in dealing with conflicting views of the world and the expression of increasing identities. Furthermore, the change in people's lifestyle can lead to complications such as weight gain and obesity, followed by physical and mental illnesses. Also, the phenomenon of globalization has been investigated in the amount and type of food consumption in tourism and it has been shown that globalization is a threat to issues related to food [8]. It can be concluded that from the point of view of global culture, globalization can influence the motivations to restore or reproduce traditions in the field of food production

Table (1): Values related to Cronbach's alpha coefficients to check the reliability

Statistical index	Cronbach's alpha
Scale	
Considered advertisements on social networks and cyberspace	0.83
fashion trends	0.79
Busyness and lack of time	0.81
Friends	0.75
The abundance of processed food and fast food	0.64

and consumption, and in this way, it will lead to problems such as increasing the incidence of dangerous diseases such as cancer. In addition, the effects of globalization on bioterrorism and the formation of security challenges in different areas have been investigated [9]. In this study, it has been emphasized that with the expansion of the globalization phenomenon, countries are forced to face and respond to threats and challenges that were not considered in the security issues before. Among the main areas of these threats, we can mention biological threats, which themselves can cause the spread of diseases. The results of this study show that globalization in five dimensions, physical, psychological, political, economic, and social, has endangered the security of citizens, especially in big cities, and it should be done with five categories of cultural, educational, research, health, and therapeutic tools. Additionally, it is necessary to confront the risks arising from it with five categories of cultural, educational, research, health, and medical and political-security tools, especially in the areas that deal with people's health.

As it was considered, until now, none of the previous studies have focused on identifying ways of impacting globalization on changing lifestyles and eating habits and determining the impact of each of these ways or factors. Therefore, this study is innovative in this regard and deals with this topic.

3. Research method

The method of this research is survey type. The statistical population of this research includes all people with cancer in Tehran who are undergoing treatment in the medical centers of the city. From the aforementioned statistical population, a total of 151 people were selected as a sample by cluster sampling method. The sample size was determined using Cochran's correlation.

The data collection tool in this research is a researcher-made questionnaire, which will be analyzed using SPSS software after data collection. Reliability has been checked using the method based on Cronbach's alpha. The values related to Cronbach's alpha coefficients to check reliability are also shown in Table (1).

Based on the results presented in the above table, reliability is confirmed.

4. Research hypotheses

- 1) Considering extensive advertisements of food and restaurants in social networks and cyberspace,
- 2) Fashion trends,
- 3) Busyness and lack of time,

- 4) Being in groups of friends and peers,
 - 5) The abundance of processed food and fast food,
- All the above-mentioned issues lead to changes in eating habits and ultimately increase the incidence of cancer.

5. Hypothesis Testing

To check the hypotheses, the Pearson correlation method was used, and the results are shown in table (2).

Table (2): Results related to the relationship between dependent and independent variables

independent variable / dependent variable	Getting Cancer				
	Significance level	Correlation coefficient	Error level	Number	test result
Considered advertisements on social networks and cyberspace	0.33	0.001	0.05	151	Hypothesis confirmed
Fashion trends	0.30	0.003	0.05	151	Hypothesis confirmed
Busyness and lack of time	0.32	0.000	0.05	151	Hypothesis confirmed
Friends	0.34	0.000	0.05	151	Hypothesis confirmed
The abundance of processed food and fast food	0.38	0.000	0.05	151	Hypothesis confirmed

The results presented in the above table indicate that all the hypotheses have been confirmed. This indicates that the spread of cancer is a function of changes in behavior and eating habits, which are also influenced by factors such as considered advertisements on social networks and cyberspace, fashion trends, busyness and lack of time, friends and peers, and abundance of processed food and fast food. There are multiple relationships between the mentioned factors and the prevalence of cancer.

Another important point is to find out how globalization can have the greatest impact on changing people's eating habits and their incidence of cancer. For this purpose, the regression coefficients related to the studied variables are shown in table (3).

As it was mentioned, among the above variables, busyness, and lack of time with a beta coefficient equal to 0.151 has the highest impact and fashion trends with a beta coefficient equal to 0.112 have the lowest impact on changing eating habits and the incidence of cancer.

Table (3): Regression coefficients of variables

Variables	Non-standard coefficients		Standard coefficients	T value	Significant level
	B	Standard error	beta		
The constant value of alpha	0.346	6.7	-	8.563	0.000
Considered advertisements on social networks and cyberspace	0.421	0.31	0.056	1.118	0.0003
Fashion trends	0.891	0.112	0.142	2.649	0.000
Busyness and lack of time	0.214	0.311	0.151	2.978	0.003
Friends	0.152	0.201	0.061	1.411	0.000
The abundance of processed food and fast food	0.18	0.2	0.011	0.527	0.000

6. Conclusion

Globalization is the process of interaction and integration of people, companies, and governments around the world. Globalization grew due to the advancement of communication and transportation technology. Moreover, increased global interaction brings with it the growth of international trade, ideas, and culture. Along with the major benefits it brings in the economic fields, globalization can have destructive effects such as changes in people's lifestyles and changes in their eating habits and behavior. The results show that the prevalence of cancer is a function of changes in behavior and eating habits, which are also influenced by factors such as considered advertisements on social networks and cyberspace, fashion trends, busyness and lack of time, friends and peers, and abundance of processed food and fast food. There are multiple relationships between the mentioned factors and the

prevalence of cancer. In addition, globalization can cause changes in the lifestyle and eating habits of people through various ways, including considered advertisements on social networks and cyberspace, fashion trends, busyness, and lack of time and being with friends. Therefore, the consumption of processed and fast foods will increase and because of the above-mentioned factors, those people will become infected with cancer. It should be noted that busyness and lack of time to prepare healthy foods are the most important factors, and the least effect is due to fashion trends.

Acknowledgments

We sincerely thank our parents for standing beside us during this project.

Disclosure Of Potential Conflict-Of-Interest

1. Did the author of the manuscript receive funding, grants, or in-kind support in support of the research or the preparation of the manuscript?

NO

YES, support received from the following persons, agencies, industrial or commercial parties is disclosed below.

If yes, did the support include contractual or implied restriction on utilization or publication of the data and/or review of the data prior to publication?

NO

YES

2. Did the author have association or financial involvement (i.e. consultancies/advisory board, stock ownerships/options, equity interest, patents received or pending, royalties/honorary) with any organization or commercial entity having a financial interest in or financial conflict with the subject matter or research presented in the manuscript?

NO

YES, the association or financial involvement of the authors is disclosed below.

1.

2.

Author Name: Ellias Aghili Dehnavi

Date: 2023-02-11

Title of Article: Investigating the Impact of Globalization and Changes in Lifestyle and Eating Habits on the Cancer Prevalence

Disclosure Of Potential Conflict-Of-Interest

1. Did the author of the manuscript receive funding, grants, or in-kind support in support of the research or the preparation of the manuscript?

NO

YES, support received from the following persons, agencies, industrial or commercial parties is disclosed below.

If yes, did the support include contractual or implied restriction on utilization or publication of the data and/or review of the data prior to publication?

NO

YES

2. Did the author have association or financial involvement (i.e. consultancies/advisory board, stock ownerships/options, equity interest, patents received or pending, royalties/honorary) with any organization or commercial entity having a financial interest in or financial conflict with the subject matter or research presented in the manuscript?



NO

YES, the association or financial involvement of the authors is disclosed below.

- 1.
- 2.

Author Name: Niloofar Mahafel

Title of Article: Investigating the Impact of Globalization and Changes in Lifestyle and Eating Habits on the Cancer Prevalence

Date: 2023-02-11

Ethical Statement

Hereby, I /Ellias Aghili Dehnavi/ consciously assure that for the manuscript /Investigating the Impact of Globalization and Changes in Lifestyle and Eating Habits on the Cancer Prevalence/ the following is fulfilled:

- 1) This material is the authors' own original work, which has not been previously published elsewhere.
- 2) The paper is not currently being considered for publication elsewhere.
- 3) The paper reflects the authors' own research and analysis in a truthful and complete manner.
- 4) The paper properly credits the meaningful contributions of co-authors and co-researchers.
- 5) The results are appropriately placed in the context of prior and existing research.
- 6) All sources used are properly disclosed (correct citation).
- 7) All authors have been personally and actively involved in substantial work leading to the paper, and will take public responsibility for its content.

The violation of the Ethical Statement rules may result in severe consequences.

To verify originality, your article may be checked by the originality detection software.

I agree with the above statements and declare that this submission follows the policies of this journal as outlined in the Guide for Authors and in the Ethical Statement.

Date: 2023-02-11

Corresponding author's signature: Ellias Aghili Dehnavi

References

- [1] Sentishcheva, E. A., & ACQUAH, T. H. (2020). Globalization of the world processes: the essence and directions. (pp. 9-11).
- [2] Sachs, J. D. (2020). The ages of globalization. In *The Ages of Globalization*. Columbia University Press.
- [3] Almeida, P., & Chase-Dunn, C. (2018). Globalization and social movements. *Annual Review of Sociology*, 44(1), 189-211.
- [4] Paskaleva, M., & Stoykova, A. (2021). Globalization effects on contagion risks in financial markets. In *SHS Web of Conferences* (Vol. 92, p. 03021). EDP Sciences.
- [5] Ubago-Guisado, E., Rodríguez-Barranco, M., Ching-López, A., Petrova, D., Molina-Montes, E., Amiano, P., ... & Sánchez, M. J. (2021). Evidence update on the relationship between diet and the most common cancers from

the European Prospective Investigation into Cancer and Nutrition (EPIC) study: a systematic review. *Nutrients*, 13(10), 3582.

[6] Salamanca-Fernández, E., Rodríguez-Barranco, M., Amiano, P., Delfrade, J., Chirlaque, M. D., Colorado, S., ... & Sánchez, M. J. (2021). Bisphenol-A exposure and risk of breast and prostate cancer in the Spanish European Prospective Investigation into Cancer and Nutrition study. *Environmental Health*, 20(1), 1-12.

[7] Martinez Tyson, D., Teran, E., Đào, L. U. L., Chee, V., Hernández, I., Flores, M., ... & Baldwin, J. A. (2021). "Cancer is in style": lifestyle change and the perceived impact of globalization on Andean indigenous communities in Ecuador. *Ethnicity & Health*, 26(2), 153-167.

[8] Singhal, D. (2022). Globalization and Social Security. *Supremo Amicus*, 28, 228.

[9] Sazmand, Bahareh, and Sazmand, Maryam, 2019, Globalization and Bioterrorism: Human Security of Residents of Tehran Metropolis, 7th Congress of Iran Geopolitical Association (*Political Geography of the City*), Tehran.