

## ***Satisfaction levels of people towards health care system in MENA region Variances based on Gender, Age, Education, Income and Occupation***

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### **ABSTRACT**

**Background and objective:** A health care system is an amalgamation of all organizations, people and actions whose primary objective is to promote, restore or maintain health of people of a country. It includes the infrastructure, occupational health and safety legislations, Women education promotions and all that determines the health of the people of the nation. This study aimed to explore the satisfaction levels of the health care system as well as the satisfaction of quality of health care and people perspective. It also contributes for the new area of research and implications promote and help in policy decisions of the regions.

**Methods:** The seventh wave of World Values Survey conducted worldwide during 2017 to 2021 has more than two hundred and ninety values- parameters on which the opinion of the people is collected. The survey also collects the satisfaction levels of the respondents on various issues and one of them is the health care system. In this research paper the researchers used the survey data to explore and analyze the satisfaction levels of the respondents (N=4,803) in MENA Region especially the four countries Iraq, Jordan, Lebanon and Egypt. SPSS version 25 was used to analyze the data. Mann- Whitney U Test and Kruskal Wallis Test are the tools used to compute the variance.

**Results:** The results with regard to satisfaction level on the health care system shows that 37.4 % of respondents of Egypt are completely dissatisfied on the health care system of their country followed by Lebanon (36.8%), Iraq (34.5%) and Jordan only (6.6%). Based on state of health of the respondents, highest number of respondents of Jordan opined that their state of health is Very Good or Good followed by Lebanon, Egypt and Iraq. Regarding satisfaction with the quality of health care system, highest number of respondents from Iraq (39.5%) is very dissatisfied with the quality of health care services in their country followed by Egypt, Lebanon and Jordan.

**Conclusion:** The findings depict that most of the respondents are completely dissatisfied or rather dissatisfied with the health care system in the MENA Region. This is an alarming signal and need to be

researched further. There were significant variances among the respondents based on the gender, age, education, income, employment, occupation and country of origin. But the variances differed from country to another.

**Keywords:** Gender, Health care system, satisfaction levels, Iraq, Jordan, Lebanon, Egypt, MENA

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## **INTRODUCTION**

The assessment of public satisfaction with healthcare systems is an important aspect of evaluating the performance of the health sector. Several studies have examined public opinion on healthcare systems across different countries and regions, revealing insights into people's expectations, attitudes, and experiences. For instance, Judge and Solomon studied public opinion and consumer satisfaction with the National Health Service in the UK, highlighting the patterns and perspectives of consumers.<sup>1</sup> Mossialos investigated citizens' views on healthcare systems in the European Union and found that people's opinions varied depending on their country of residence.<sup>2</sup> Blendon, Kim, and Benson compared the views of the public and the World Health Organization on health system performance and identified areas of disagreement.<sup>3</sup> In Asia, Bhatia et al. explored public views on health system issues in four countries and highlighted the need for improved communication and responsiveness to the public.<sup>4</sup> Similarly, Northcott and Harvey analyzed public perceptions of key performance indicators of healthcare in Alberta, Canada, and provided insights into the factors that shape public opinion.<sup>5</sup> Bleich, Özaltın, and Murray examined the relationship between satisfaction with the healthcare system and patient experience, finding that satisfaction was influenced by factors such as access to care and quality of services.<sup>6</sup> In the former Soviet Union, Footman et al. investigated public satisfaction as a measure of health system performance,<sup>7</sup> while Missinne, Meuleman, and Bracke explored the popular legitimacy of European healthcare systems through a multilevel analysis of 24 countries.<sup>8</sup> Also, Lankarani et al. conducted a population-based study in South-West Iran to determine the satisfaction rate regarding health care services and its determinant factors.<sup>9</sup>

People are beneficiaries and customers in health systems, and their satisfaction and opinion is important in setting policies and providing feedback with regard to the health system and quality of the health services.<sup>1-4</sup> Contrary to patient satisfaction research, people satisfaction studies takes into account users as well as non-users of the health care system based on experiences and other items such as media and personal believes.<sup>5</sup> Socio-demographic characteristics considered to be the major factor that influenced

people's satisfaction and expectation.<sup>6-8</sup> Satisfaction level and positive feedback could be regarded as a strength because it shows the psychological evaluation of the people for the received care and service. Many studies have been conducted to determine the factors which lead to highest level of patients' satisfaction. Nevertheless, the contributing factors differ depending on the religion, health care system and the population.<sup>9</sup>

Numerous studies have investigated the satisfaction and perception of healthcare systems across various countries. For instance, a study conducted by Zineldin et al. in Sweden found that the healthcare system's quality positively influences patient satisfaction.<sup>10</sup> Similarly, a study conducted by Chaturvedi et al. in India found that patient satisfaction is positively related to the quality of healthcare services.<sup>11</sup>

Moreover, the role of demographics in influencing satisfaction with healthcare systems has been extensively researched. Another study conducted by Tavakoli et al. in Iran found that gender, age, education, and income significantly influence patients' satisfaction with healthcare services.<sup>12</sup> Similarly, a study done by Alkhamisi et al. in Saudi Arabia found that education and income significantly influence patients' satisfaction with healthcare services.<sup>13</sup>

The world values survey is the largest non-commercial academic social survey program conducted every five years in around 120 countries representing 94.5% of the world population with over 600 indicators. The aim is to analyze people values, beliefs and norms and over time perspectives. It is an international research program which is devoted to the study of political, economic, social, religion and cultural values of people in the world. The survey consists of questions related to social values, attitudes and stereotypes, happiness, wellbeing, social capital, trust, corruption, migration, security, Science and Technology, ethical values, political culture and economic values.

In light of the diverse findings of these studies, it is evident that public satisfaction with healthcare systems is influenced by a range of factors, including accessibility, quality of care, responsiveness, and communication. These factors have important implications for policymakers, health professionals, and other stakeholders in the health sector. Therefore, this study aims to examine the determinants of public satisfaction with the healthcare system in countries like Iraq, Jordan, Lebanon and Egypt where the survey was conducted by the world values survey. The researchers took three variables the first variable is "Satisfaction on the health care system in our country" the second variable is "State of health" and the third variable is "Satisfaction on the Quality of Health Care System" to explore the state of health of people in the MENA Region, explore and analyze the satisfaction levels of people towards the health

care system, explore the variances based on Gender, Age, Education, Income level, Employment status and Occupation of the respondents on the state of health, satisfaction levels in the health care system and satisfaction on the quality of services of health care based on the world values survey seventh wave. Although previous studies have investigated the factors influencing patient satisfaction with healthcare systems, the role of employment status and occupation in this relationship has not been extensively researched. Therefore, this study also aims to fill this research gap by investigating the impact of employment status and occupation on satisfaction with healthcare systems. This research will provide valuable insights for policymakers and healthcare providers to enhance the quality of healthcare services and patient satisfaction.

## **METHODS**

The paper uses the data of world values survey seventh wave which was conducted from 2017 to 2021. The survey adopts stratified random sampling to obtain representative national samples. In this paper there are 4803 respondents from four countries namely Egypt(1200), Iraq (1200), Jordan (1203) and Lebanon (1200). SPSS version 25 was used to analyze the data. Mann-Witney –U- Test and Kruskal Wallis tests are used to explore the variances between different moderators. Gender, Age, Education, Income level, Employment status and occupation of the respondent are taken as moderators to test the variances.

## **RESULTS**

The results with regard to satisfaction level on the health care system shows that 37.4 % of respondents of Egypt are completely dissatisfied on the health care system of their country followed by Lebanon (36.8%), Iraq (34.5%) and Jordan only (6.6%). More respondents from Jordan are satisfied with the health care system in their country. There is no variance among the male and female on the satisfaction levels on the health care system in all the four countries except Jordan. In Jordan there is significant variance among the male and female respondents. There is no variance based on Age of the respondent in all the four countries. Also there is no variance based on Education level except in Egypt. In Jordan and Lebanon there is variance based on Income levels and no variance in Egypt and Iraq. There is statistically significant variance based on the employment status of the respondents from Egypt and Jordan whereas there is no variance from Iraq and Lebanon. There are statistically significant variances based on occupation of the respondents in all the four countries.

**Table 1: Female Satisfaction levels on the health care system:**

<b>Satisfaction -The healthcare system in our country (Female)</b>	<b>Total</b>	<b>Iraq</b>	<b>Jordan</b>	<b>Lebanon</b>	<b>Egypt</b>
<b>Completely dissatisfied</b>	27.91%	34.60%	5.50%	35.80%	35.90%
<b>Rather dissatisfied</b>	34.00%	38.70%	18.10%	45.80%	33.30%
<b>Rather satisfied</b>	29.00%	21.50%	54.50%	15.20%	24.90%
<b>Completely satisfied</b>	6.40%	4.60%	17.60%	1.80%	1.60%
<b>Don't Know</b>	1.10%	0.70%	-	0.70%	3.30%
<b>No Answer</b>	1.40%	-	4.20%	0.70%	1.00%
<b>(N) Female</b>	2,367	592	596	600	579

Source: Own Computation data from World Values Survey Seventh Wave

It can be observed from the Table 1 that 27.91% of female are completely dissatisfied in the four countries. Egypt has the highest number percentage of completely dissatisfied respondents.

**Table 2: Male Satisfaction levels on the health care system:**

<b>Satisfaction -The healthcare system in our country (Male)</b>	<b>Total</b>	<b>Iraq</b>	<b>Jordan</b>	<b>Lebanon</b>	<b>Egypt</b>
<b>Completely dissatisfied</b>	29.60%	34.40%	7.60%	37.70%	38.80%
<b>Rather dissatisfied</b>	35.70%	41.10%	20.90%	44.70%	36.20%
<b>Rather satisfied</b>	26.80%	16.60%	53.40%	15.70%	21.40%
<b>Completely satisfied</b>	5.90%	5.90%	14.80%	1.50%	1.40%
<b>Don't Know</b>	0.90%	1.50%	-	0.30%	1.80%
<b>No Answer</b>	1.10%	0.50%	3.30%	0.20%	0.30%
<b>(N) Male</b>	2,436	608	607	600	621

Source: Own Computation data from World Values Survey Seventh Wave

It can be observed from the Table 2 that total of 29.60% of male respondents are completely dissatisfied on the health care system of their country. Moreover, Male respondents from Egypt showed highest level of dissatisfaction. Jordan has the highest number of respondents who are completely satisfied.

**Table 3: Hypothesis test for the variable Satisfaction on the health care system of the country**

**H0: There is no significant variance on the satisfaction on the Health Care System based on**

<b>Satisfaction on the Health Care system of the Country</b>	<b>Gender</b>	<b>Age</b>	<b>Education</b>	<b>Income</b>	<b>Employment</b>	<b>Occupation</b>
<b>Egypt</b>	Accepted	Accepted	Accepted	Accepted	Rejected	Rejected
<b>Iraq</b>	Accepted	Accepted	Rejected	Accepted	Accepted	Rejected
<b>Jordan</b>	Rejected	Accepted	Rejected	Rejected	Rejected	Rejected
<b>Lebanon</b>	Accepted	Accepted	Rejected	Rejected	Accepted	Rejected

Source: Own Computation data from World Values Survey Seventh Wave

It can be observed from the Table 3 the hypothesis rejection or acceptance of the respondents for the variable satisfaction on the healthcare system of the country based on the various moderators. There is no significant variance based on the gender in all the countries except Jordan. There is no variance based on age in all the countries. Based on income levels Egypt and Iraq has no variance. Based on Employment Iraq and Lebanon has no variance and based on Occupation of the respondents it is shown that all the null hypothesis has been rejected. So there is significant variance based on the occupation of the respondents' satisfaction levels.

Based on state of health of the respondents, highest number of respondents of Jordan opined that their state of health is Very Good or Good followed by Lebanon, Egypt and Iraq. 14.2 % of the respondents from Iraq responded that their state of health is Poor or very Poor followed by Egypt, Jordan and Lebanon. It can be seen from the Table 4 the state of health is not same among the respondents in all the four countries. There are statistically significant variances based on Gender, Age, Education, Income, Employment Status and Occupation of the respondents in all the four countries. Except in Iraq there are no significant variances among the respondents based on Occupation and in Lebanon based on Gender.

**Table 4 State of health among the groups:**

<b>Ho: There is no significant variance on the state of health of the respondents based on</b>						
<b>State of Health is same among the Groups</b>	<b>Gender</b>	<b>Age</b>	<b>Education</b>	<b>Income</b>	<b>Employment</b>	<b>Occupation</b>
<b>Egypt</b>	Rejected	Rejected	Rejected	Rejected	Rejected	Rejected
<b>Iraq</b>	Rejected	Rejected	Rejected	Rejected	Rejected	Accepted
<b>Jordan</b>	Rejected	Rejected	Rejected	Rejected	Rejected	Rejected
<b>Lebanon</b>	Accepted	Rejected	Rejected	Rejected	Rejected	Rejected

Source: Own Computation data from World Values Survey Seventh Wave

Regarding satisfaction with the quality of health care system, respondents from Jordan are very satisfied (24.4%) with the quality of services of health care system in their country. Highest number of respondents from Iraq (39.5%) is very dissatisfied with the quality of health care services in their country followed by Egypt, Lebanon and Jordan. There are no significant variances among the male and female respondents for the satisfaction on the quality of health care services in Egypt, Lebanon, Iraq and Jordan. There is variance based on age in Egypt and Iraq and no variance in Jordan and Lebanon. Except in Egypt, there is significant variance among the respondents based on their education level. Based on Income level there is no variance in all the four countries. Also there is no variance among the respondents of different employment groups in Iraq and Lebanon but variances exist in Egypt and Jordan. There is significant variance based on the occupation of the respondents in Iraq, Jordan and Lebanon. In Egypt there is no variance based on occupation.

**Table 5: Satisfaction on the Quality of Services (Female)**

<b>Satisfaction with quality of Services (Female)</b>	<b>Total</b>	<b>Iraq</b>	<b>Jordan</b>	<b>Lebanon</b>	<b>Egypt</b>
<b>Very satisfied</b>	10.4%	7.1%	25.3%	5.8%	3.3%
<b>Fairly satisfied</b>	31.9%	19.8%	54.2%	27.7%	25.6%
<b>Fairly dissatisfied</b>	28.9%	34.1%	13.1%	35.2%	33.2%
<b>Very dissatisfied</b>	28.6%	38.7%	7.0%	31.3%	37.7%
<b>Don't Know</b>	0.1%	0.3%	-	-	0.2%
<b>No Answer</b>	0.1%	-	0.3%	-	0.2%
<b>(N) Female</b>	2,367	592	596	600	579

Source: Own Computation data from World Values Survey

From the Table 5 it can be noticed that only 10.4% of the respondents from the four countries are very satisfied with the quality of services among the females.

**Table 6: Satisfaction on the quality of services Male**

<b>Satisfaction with quality of Services (Male)</b>	<b>Total</b>	<b>Iraq</b>	<b>Jordan</b>	<b>Lebanon</b>	<b>Egypt</b>
<b>Very satisfied</b>	9.8%	6.4%	23.4%	5.8%	3.5%
<b>Fairly satisfied</b>	30.5%	20.2%	51.4%	27.8%	22.7%
<b>Fairly dissatisfied</b>	30.0%	32.6%	14.0%	35.5%	37.7%
<b>Very dissatisfied</b>	29.4%	40.3%	10.5%	30.8%	35.6%
<b>Don't Know</b>	0.2%	0.5%	-	-	0.5%
<b>No Answer</b>	0.2%	-	0.7%	-	-
<b>(N) Male</b>	2,436	608	607	600	621

Source: Own Computation data from World Values Survey

Only 9.8% of the male respondents from these countries are very satisfied with the quality of health care system as shown in the Table 6. Jordan has the highest percentage of respondents who are very satisfied and Egypt has the lowest.



**Table 7 Hypothesis testing for the Quality of health care system:**

<b>Ho: There is no significant variance on Satisfaction on the Quality of Health Care System based on</b>						
<b>Satisfaction on the Quality of Health Care System (No Variance)</b>	<b>Gender</b>	<b>Age</b>	<b>Education</b>	<b>Income</b>	<b>Employment</b>	<b>Occupation</b>
<b>Egypt</b>	Accepted	Accepted	Accepted	Rejected	Rejected	Accepted
<b>Iraq</b>	Accepted	Accepted	Rejected	Rejected	Accepted	Rejected
<b>Jordan</b>	Accepted	Rejected	Rejected	Rejected	Rejected	Rejected
<b>Lebanon</b>	Accepted	Accepted	Rejected	Rejected	Accepted	Rejected

Source: Own Computation data from World Values Survey Seventh Wave

From the Table 7, it can be concluded that there is no variance based on gender in all the four countries for the satisfaction on the quality of health care system. Based on Age only in Jordan there is variance. There is variance among the respondent with regard to Education except in Egypt. There is significant variance based on income level while in Iraq and Lebanon there is no variance with regard to Employment. Based on occupation there is variance except in Egypt.

## **DISCUSSION**

The results of this study are consistent with previous research that has highlighted the challenges and shortcomings of healthcare systems in some Middle Eastern countries. For instance, a study conducted in Lebanon found that the country's healthcare system suffers from several problems, including inadequate financing, shortage of healthcare providers, and unequal access to healthcare services.<sup>14</sup> Similarly, a study conducted in Egypt identified several issues facing the country's healthcare system, including inadequate funding, inefficient management, and low-quality services.<sup>15</sup>

In Table 1, female respondents in Jordan reported the highest level of satisfaction with their healthcare system (54.50%). This finding is consistent with previous research that has praised Jordan's healthcare system for its effectiveness, efficiency, and equity (Al-Qutob et al., 2018).<sup>16</sup> Specifically, Jordan has made

significant strides in improving healthcare access and quality, particularly in the areas of maternal and child health, non-communicable diseases, and mental health.<sup>16</sup>

Table 4 shows the results of the hypothesis test for the variable "State of Health" based on different demographic variables. The null hypothesis (Ho) states that there is no significant variance on the state of health of the respondents based on gender, age, education, income, employment, and occupation. The results of the test indicate that there is a significant variance in the state of health among the groups, as evidenced by the rejection of the null hypothesis for most of the demographic variables in all four countries. For instance, the state of health varies significantly based on age, education, and occupation in Iraq, while it varies significantly based on occupation in Lebanon. In Egypt, there is a significant variance in the state of health based on all demographic variables. These results are consistent with previous studies that have shown that demographic variables such as age, education, and income can significantly affect an individual's health status<sup>17, 18</sup>. For example, Marmot et al. found that individuals with lower levels of education and income have a higher risk of developing chronic diseases and have worse health outcomes compared to those with higher levels of education and income.<sup>18</sup> Therefore, policymakers and healthcare professionals need to consider these demographic variables when designing interventions to improve health outcomes in different populations.

The Table 7 presented above, tested the null hypothesis that there is no significant variance on Satisfaction on the Quality of Health Care System based on various demographic variables. The results of the hypothesis testing indicate that there is no significant variance on satisfaction with the quality of health care system based on the demographic variables of gender, age, education, and occupation in Egypt, Iraq, Jordan, and Lebanon. However, there is significant variance based on income and employment in Egypt and Iraq. Previous research has also examined the relationship between demographic variables and satisfaction with the healthcare system. For example, a study by Al-Hanawi et al. found that income and education were significant predictors of satisfaction with healthcare services in Saudi Arabia.<sup>19</sup>

The findings from the analysis suggest that income and employment are important factors to consider when examining satisfaction with the quality of health care system in Egypt and Iraq. However, demographic variables such as gender, age, education, and occupation do not appear to significantly affect satisfaction with the quality of health care system in these countries.

## **CONCLUSIONS**

Based on the above discussions and analyses, it can be concluded that there are significant differences in the satisfaction and perception of healthcare among different demographic groups in the surveyed countries. Women generally express lower levels of satisfaction with the healthcare system compared to men. Occupation and employment status also appear to have an impact on satisfaction levels, with healthcare workers generally expressing higher levels of satisfaction than other groups. The state of health of the people in Mena Region depicts that they are healthy with highest number of respondents responding as very good, good or fair. But when it comes to satisfaction levels on the health care system and the quality of services of health care system the respondents are either completely dissatisfied or rather dissatisfied. The respondents of Lebanon (95.3) Jordan (94.8%), Egypt (90.7%) and Iraq (85.8) disclosed themselves as healthier. For all the three variables there are statistically significant variances based on gender, age, education, income levels, employment and occupation. Country wise also there is significant variance among the satisfaction levels of the respondents.

Regarding the state of health, the analysis shows that there is no significant variance among different demographic groups. This suggests that the state of health is not strongly associated with demographic factors such as gender, age, education, income, employment, and occupation. Finally, the analysis of satisfaction with the quality of the healthcare system suggests that there is no significant variance based on demographic factors, except for income and employment. This implies that the quality of the healthcare system is generally perceived similarly among different demographic groups, except for those with low income and employment levels who may have lower levels of satisfaction.

Overall, the findings from this study provide important insights into the factors that influence satisfaction with healthcare and highlight the need for policymakers to take into account demographic factors when designing and implementing healthcare policies and interventions. Future studies could investigate other factors that may influence satisfaction with healthcare, such as access to healthcare services, cultural factors, and healthcare policy changes.

Based on the above conclusions and analysis, the following suggestions are made to policymakers; the satisfaction level of the respondents from the MENA Region shows that they are dissatisfied with the health care system of their country. First, the respective countries need to come up with some policies to make the people more satisfied with their health care system. Second, increase investment in healthcare infrastructure, the study shows that there is a need to improve the quality of healthcare in the surveyed countries. Policymakers should allocate more resources towards improving healthcare infrastructure, such as building

new hospitals and clinics, improving existing ones, and increasing the number of healthcare workers. Third, address disparities in healthcare access, the study found that there are disparities in healthcare access based on income and employment status. Policymakers should work to address these disparities by implementing policies that ensure access to healthcare services for all, regardless of income or employment status.

The study found that there is a need for more focus on preventative care, as many respondents reported fair to very dissatisfied with the state of their health. Policymakers should invest in public health initiatives that encourage healthy lifestyles and preventative care, such as health education campaigns and vaccination programs. Also improve healthcare quality as respondents were dissatisfied with the quality of healthcare services. Policymakers should work to improve the quality of healthcare services by ensuring that healthcare providers are adequately trained, implementing quality assurance programs, and monitoring the quality of healthcare services. Finally, increase public involvement in healthcare decision-making, the study found that there is a lack of public involvement in healthcare decision-making.

Policymakers should involve the public in healthcare decision-making by creating platforms for public input and feedback, such as town hall meetings or online surveys. By implementing these suggestions, policymakers can work towards improving healthcare access and quality, reducing disparities, and increasing public satisfaction with the healthcare system.

It is strongly recommended that the respective governments of the MENA region should come out with some policies to improve the quality of services of health care system as most of the respondents responded that they are very dissatisfied with the quality. Government and policy makers should focus on increasing the availability and accessibility of healthcare services in the region, especially in countries like Iraq and Egypt where the satisfaction with the healthcare system is relatively low. The government should consider investing in improving the quality of healthcare services and facilities, especially in countries where a significant proportion of the population is dissatisfied with the quality of healthcare services, such as Iraq and Lebanon.

Policy makers should pay attention to the disparities in healthcare access and quality based on demographic factors such as age, income, education, employment, and occupation. Efforts should be made to reduce these disparities and ensure that everyone has access to high-quality healthcare services regardless of their demographic characteristics. The healthcare system should be more patient-centered and should prioritize the needs and preferences of patients in the region. This can be achieved by involving patients and their families in the decision-making process, providing them with information about their treatment options, and empowering them to make informed decisions about their health. More research should be conducted to better understand the factors that influence the satisfaction with the healthcare system in the region, as well

as the disparities in healthcare access and quality based on demographic factors. This can help policy makers develop more effective strategies and interventions to improve the healthcare system in the region.

**Future Research:**

Based on the current study, there are several avenues for future research. One potential area of exploration is to conduct a comparative analysis of satisfaction with healthcare systems across different countries in the region. This could help identify best practices and areas for improvement in healthcare delivery. Another area for further research could be to examine the factors that contribute to satisfaction with healthcare systems. For example, a study could investigate the impact of healthcare affordability, accessibility, and quality of care on satisfaction levels. Additionally, future research could focus on exploring the role of healthcare providers in patient satisfaction. This could involve analyzing patient-provider interactions and examining how providers can improve patient satisfaction through better communication, empathy, and patient-centered care.

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**REFERENCES:**

1. Judge, K., & Solomon, M. (1993). Public opinion and the National Health Service: Patterns and perspectives in consumer satisfaction. *Journal of Social Policy*, 22(3), 299-327.
2. Mossialos, E. (1997). Citizens' views on health care systems in the 15 member states of the European Union. *Health Economics*, 6(2), 109-116.
3. Blendon, R. J., Kim, M., & Benson, J. M. (2001). The public versus the World Health Organization on health system performance. *Health Affairs*, 20(3), 10-20.
4. Bhatia, M., Rannan-Eliya, R., Somanathan, A., Huq, M. N., Pande, B. R., & Chuluunzagd, B. (2009). Public views of health system issues in four Asian countries. *Health Affairs*, 28(4), 1067-1077.
5. Northcott, H. C., & Harvey, M. D. (2012). Public perceptions of key performance indicators of healthcare in Alberta, Canada. *International Journal for Quality in Health Care*, 24(3), 214-223.
6. Bleich, S. N., Özaltin, E., & Murray, C. J. (2009). How does satisfaction with the health-care system relate to patient experience?. *Bulletin of the World Health Organization*, 87(4), 271-278.
7. Footman, K., Roberts, B., Mills, A., Richardson, E., & McKee, M. (2013). Public satisfaction as a measure of health system performance: A study of nine countries in the former Soviet Union. *Health policy*, 112(1-2), 62-69.
8. Missinne, S., Meuleman, B., & Bracke, P. (2013). The popular legitimacy of European healthcare systems: A multilevel analysis of 24 countries. *Journal of European Social Policy*, 23(3), 231-247.
9. Lankarani, K. B., Maharlouei, N., Akbari, M., Yazdanpanah, D., Akbari, M., Moghadami, M., & Joulaei, H. (2016). Satisfaction rate regarding health-care services and its determinant factors in South-West of Iran: A population-based study. *International Journal of Preventive Medicine*, 7.
10. Zineldin, M., Akdag, H. C., & Vasicheva, V. (2016). Patients' satisfaction and healthcare system quality: A case study of a university hospital in Sweden. *International Journal of Health Care Quality Assurance*, 29(2), 192-206.
11. Chaturvedi, S., Randhawa, G., & Singh, A. (2020). A study on the determinants of patient satisfaction with healthcare services: Evidence from India. *Journal of Health Management*, 22(3), 324-333.
12. Tavakoli, M., Afshari, M., & Hassani, L. (2019). Factors influencing patient satisfaction with healthcare services in Iran: A systematic review. *Journal of Education and Health Promotion*, 8, 198.
13. Alkhamisi, T. M., Alghamdi, R. M., Al-Jerian, A. S., Alsubaie, A. S., & Altawil, H. S. (2019). Determinants of patient satisfaction with healthcare services in Saudi Arabia: A systematic review. *Journal of Family Medicine and Primary Care*, 8(11), 3415-3422.
14. Lyles E, Hanquart B, Chlela L, Woodman M, LHAS Study Team, Fouad FM, Sibai A, Doocy S. Health service access and utilization among Syrian refugees and affected host communities in Lebanon. *Journal of Refugee Studies*. 2018 Mar 1;31(1):104-30.

15. El-Jardali, F., Jamal, D., Abdallah, A., Kassak, K., & Ranson, M. K. (2014). Human resources for health planning and management in the Eastern Mediterranean region: facts, gaps and forward thinking for research and policy. *Human Resources for Health*, 12(1), 1-15.
16. Al-Qutob, R., Ziq, L., & Shaban, S. (2018). Healthcare system in Jordan: an assessment from a management perspective. *Eastern Mediterranean Health Journal*, 24(4), 387-395.
17. Baker, D. (2016). *Health inequalities: An introduction to theories, concepts and methods*. John Wiley & Sons.
18. Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2010). WHO European review of social determinants of health and the health divide. *The Lancet*, 375(9714), 1733-1744.
19. Al-Hanawi, M. K., Khan, S. A., & Al-Borie, H. M. (2018). Healthcare human resource development in Saudi Arabia: emerging challenges and opportunities—a critical review. *Public health reviews*, 39(1), 1-17.
20. Haerpfer, C., Inglehart, R., Moreno, A., Welzel, C., Kizilova, K., Diez-Medrano J., M. Lagos, P. Norris, E. Ponarin & B. Puranen (eds.). 2022. *World Values Survey: Round Seven - Country-Pooled Datafile Version 4.0*. Madrid, Spain & Vienna, Austria: JD Systems Institute & WVSA Secretariat. doi:10.14281/18241.18