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RESEARCH ARTICLE

THE PHYSICIAN'S OPINION ABOUT PRIVATIZATION OF PUBLIC HOSPITALS SERVICES IN MAKKAH CITY, SAUDI ARABIA A FIELD IN MATERNITY AND CHILDREN HOSPITAL

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ABSTRACT

This study intends to discover the opinion of the physicians about the expected effects of public hospital privatization on the provided services to the patient at the Maternity and Children Hospital in Makkah city. This study was conducted using a quantitative approach through using a questionnaire to gather statistical data. This study used a cross-sectional design. We evaluated the relation between the physicians' knowledge about privatization with their answers to the questions in the research domains (the domains are: Physician Perception, Services Improvement, Increase Productivity, and Statement about privatization). The sample size is 217 physicians answering the questionnaire. The number of physicians who agreed to privatization was those who know what privatization means ($p < 0.001$). Physicians who understand what privatization means were shown to agree with the statement; that privatization will benefit the Saudi healthcare system ($p = 0.037$) and the importance of developing a summary of physicians' views regarding privatization by the Saudi MOH ($p = 0.004$). A significant value was shown in the improvement scale respectively ($p = 0.013, 0.07, 0.026$). Privatization would shorten patients' waiting time and improve access to healthcare services, and reduce the waste of resources, consumable items, and drugs. In the general statements scale, the $p = 0.001$ and 0.016 showed significant values; the privatization would give hospitals more flexibility in administration operations and eliminate routine and bureaucracy. We recommend that a longitudinal study be conducted to see the changes that privatization brings to the Saudi health system. In addition, establish and update a database of healthcare workers' opinions.

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INTRODUCTION

As the world population keeps on expanding and growing. This growth means that some resources are becoming scarce, and substitute resources must be found and utilized; so is the case with healthcare. The population of the Kingdom of Saudi Arabia (KSA) has just exceeded 30 million and is projected to increase to over 40 million during the following three decades. The Saudi Arabian healthcare industry serves an ever-growing population and the continued spike in demand for healthcare services with an annual population growth rate of 2.2 percent and a population density of 15/km² (Data World Bank, 2022; Worldometer, 2022). The concept of privatization adaptation have applied by healthcare systems, such as Germany, Canada, the United States (US), and Sweden (Wills, 2018). The different types of privatizations need to be addressed to understand the implementation process. In the 21st century, privatization has become a trend worldwide. Many developed countries have implemented privatization in their industries, and many other developing countries are considering or already have started implementing the act of privatization in all kinds of industries (Byrne, Kras, and Marmolejo, 2019). Privatization is the act of transferring the ownership of an entity or an organization from the government to the private sector.

It is also known as "The New Economic Policy." The implementation of privatization occurred to improve the organization's efficiency and reduce the government funding to that organization. The act of privatization has multiple types (Ramamonjarivelo *et al.*, 2018). Additionally, type of privatization divided into six type which is the first type is the transfer of ownership. The second type is selling the organization (As a Whole) by disinvestment. The third type is the partial operational contracting method. The fourth type is the comprehensive operational contracting method. The fifth type is the complete operational contracting method. The sixth type is the direct sale method. can be offered in bidding, and whoever wins the bidding will hold all the claims of the government entity, in addition to the complete ownership of that entity (Al Hokail, 2018). The study aimed to discover. The physicians' opinion about privatization of public hospitals services in Makkah City, Saudi Arabia about the expected effects of public hospital privatization on the provided services to the patient.

METHODOLOGY

The quantitative approach using a cross-sectional design, the targeted sample is Physicians from the Maternity and Children Hospital in Makkah, Saudi Arabia, Simple random sampling techniques used to

aggregate data by a questionnaire created to achieve research objective. The sample size was 466 physicians and 211 of them were target but response equal 217 were answering the questionnaire. The first domain assessed the physicians' opinions about privatizing public hospitals, including four questions. The second domain determined the physicians' opinion on whether the privatization will lead to improving services, including six questions. The third domain determined if privatization could lead to increased productivity in public hospitals, which includes five questions. The last domain discussed the physicians' opinions on four statements about privatization.

Result and Data Analysis

The extracted data were encoded in an excel sheet. However, the participants' names were encoded by numbers to be anonymous. Thus, the data were converted to the SPSS v 25 program. Based on the Point Likert Scale, the author considered (Agree/strongly agree) a positive opinion. The scale's reliability was tested using Cronbach Alpha, in which the ($\alpha > 0.7$) result of the scale was considered reliable. The results revealed that physicians' opinions on the privatization of public hospitals scale with four Items ($\alpha = .768$). The opinions of physicians on improvements of the healthcare system by privatization scale with six items ($\alpha = .902$). The physicians' opinions on the impact of privatization on the productivity levels of 5 items ($\alpha = .898$), and the opinion of physicians on statements regarding privatization of public hospitals in 4 items ($\alpha = .833$). All the scales used in the questionnaire are found reliable. The score of each of the components of the liker scales was put together and tested for normality against the demographic variables to choose the appropriate statistical method. Normality testing was used, and the results of the Kolmogorov-Smirnov (K-S) test, which was performed and showed the distribution for opinion scale score, improvement scale score, productivity scale score, general statement score scale depart from normality with high statistical significance ($p\text{-value} < 0.001$). The author used a continuity-corrected Chi-squared test to examine the relationship between privatization knowledge represented by knowing what privatization means and the answers to the questionnaire in a positive or negative format. Additionally, a Mann-Whitney U test was used to find the significant difference in the opinion scale score between the Male and Female groups was used as well. Figures and tables were used to help the researcher to analyse the data.

Ethical Consideration: The ethical approvals official obtained from the Research Ethical Committee of Makkah Health Affairs to run the study in the Maternity and Children Hospital in Makkah under the number (IRB number: H-02-K-076-0222-670, issued on 17.02.2022).

RESULTS

Demographic Data: The survey targeted physicians in a single point regardless of specialty/department. Of the 217 physicians answering the questionnaire, 85 (39.2%) are females, and 132 (60.8%) are male. The length of experience of physician participants was recorded, with 46 (21.2%) having less than five years of experience; furthermore, 46 (21.2%) had between six and ten years of experience. On the other hand, 31 (14.3%) had between 11 and 15 years of experience, which is the least represented group according to experience. Moreover, 45 (20.7%) and 49 (22.6%) had consecutively 16 to 20 and above 20 years of experience. When asked about what privatization means, 65.9% said they know the meaning, while 24% said 'Maybe' and 10.1% stated they do not. See Table.1.

Domains' Results: Upon being asked about their opinion on transferring public hospital ownership to the private sector, only 35.9% of participants expressed a positive opinion on this matter (agree/strongly agree). However, when asked whether privatization can be beneficial to the Saudi healthcare system, 45.6% of the participant agreed/strongly agreed. Moreover, 58.5% of participants anticipate that Saudi Arabia will eventually move toward privatizing the healthcare system.

Table 1. Demographic Data

Variables		N	%
Gender	Male	132	60.8
	Female	85	39.2
Years of experience	<5	46	21.2
	6-10	46	21.2
	11-15	31	14.3
	16-20	45	20.7
	>20	49	22.6
Do you know what privatization means?	Yes	143	65.9
	No	22	10.1
	Maybe	52	24.0

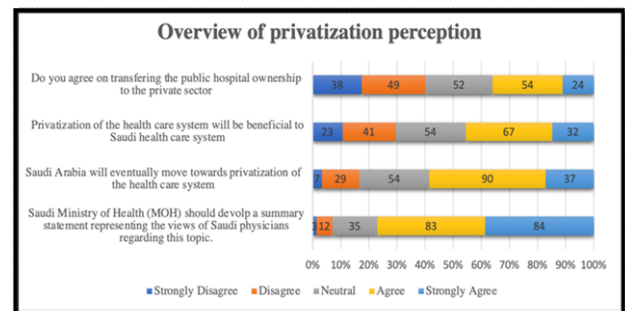


Figure 1. Overview of privatization perception

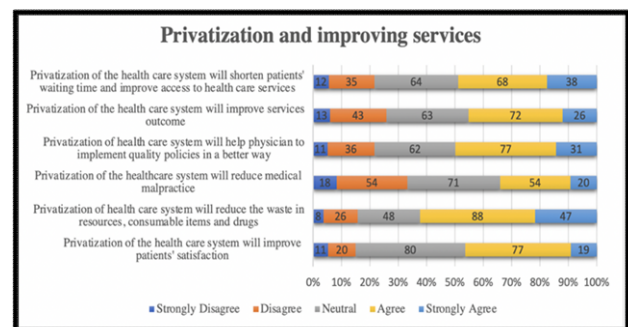


Figure 2. Privatization and improving services

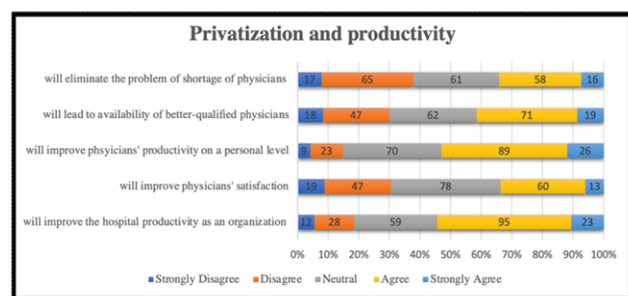


Figure 3. Privatization and productivity

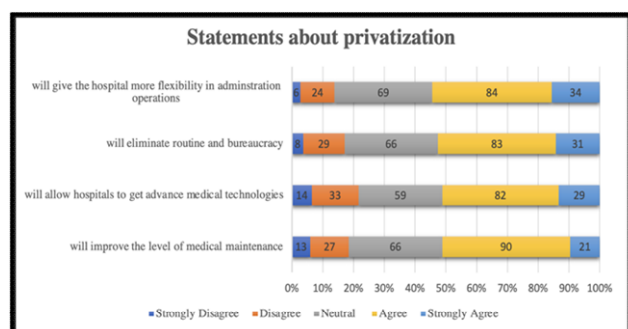


Figure 4. Statements about privatization

Table 2. Relationship between privatization knowledge and domain

Opinion scale score		Yes	No	Total	p-value
Do you agree on transferring the public hospital ownership to the private sector?	Against	80	59	139	<0.001**
	For	63	15	78	
Privatization of the health care system will be beneficial to Saudi health care system	Against	70	48	118	0.037*
	For	73	26	99	
Saudi Arabia will eventually move towards privatization of the health care system	Against	53	37	90	0.091
	For	90	37	127	
Saudi Ministry of Health (MOH) should develop a summary statement representing the views of Saudi physicians regarding this topic.	Against	24	26	50	0.004*
	For	119	48	167	
Improvement scale score					
Privatization of the health care system will shorten patients' waiting time and improve access to health care services	Against	64	47	111	0.013*
	For	79	27	106	
Privatization of the health care system will improve services outcome	Against	74	45	119	0.259
	For	69	29	98	
Privatization of the healthcare system will help the physician to implement quality policies in a better way	Against	65	44	109	0.07*
	For	78	30	108	
Privatization of the healthcare system will reduce medical malpractice	Against	90	53	143	0.259
	For	53	21	74	
Privatization of healthcare system will reduce the waste in resources, consumable items, and drugs	Against	46	36	82	0.026*
	For	97	38	135	
Privatization of the health care system will improve patients' satisfaction	Against	76	45	121	0.351
	For	67	29	96	
Productivity scale score					
Privatization of the health care system will eliminate the problem of shortage in physicians	Against	94	49	143	1.000
	For	49	25	74	
Privatization of the health care system will lead to availability of better-qualified physicians	Against	78	49	127	0.131
	For	65	25	90	
Privatization of the health care system will improve physicians' productivity on the individual level	Against	55	47	102	<0.001**
	For	88	27	115	
Privatization of the health care system will improve physicians' satisfaction	Against	89	55	144	0.102
	For	54	19	73	
Privatization of the health care system will improve the hospital's productivity as an organization.	Against	62	37	99	0.431
	For	81	37	118	
General statement score scale					
Privatization of the health care system will give hospitals more flexibility in administration operations	Against	52	47	99	0.001**
	For	91	27	118	
Privatization of the health care system will eliminate routine and bureaucracy	Against	59	44	103	0.016*
	For	84	30	114	
Privatization of the health care system will allow hospitals to get advance medical technologies	Against	70	36	106	1.000
	For	73	38	111	
Privatization of the health care system will improve the level of medical maintenance	Against	65	41	106	0.212
	For	78	33	111	

A Mann-Whitney U test showed a significant difference ($U = 4658.5$, $p = 0.034$) in the opinion scale score between the Male and Female groups. The Male physicians' median score was 14.5 compared to 13 in females showing a statistically significant difference in these distributions. However, none of the other scale scores or demographics yielded any statistically significant difference in the distribution.

A majority of physicians (76.9%) believe that the Saudi Ministry of Health should develop a summary representing their point of view. See Figure 1. When asked about the impact of privatization on shortening waiting time and improving patients' access to healthcare, 48.8% of participants agreed with the proposition, while 21.6% disagreed with this statement. On the other hand, 45.1% agreed that privatizing the Saudi healthcare system would improve the service outcome. Additionally, 44.2% of physicians agreed that privatization would improve patients' satisfaction. Moreover, 49.7% agreed that it would help physicians implement quality policies in a better way. Physicians were fairly divided on the impact of privatization on reducing malpractice, with 34.1% in agreement with the statement and 33.1% disagreeing with the statement. However, 62.2% of physicians believe privatization will reduce resource waste. See Figure 2. Participants' responses agreed that privatization positively impacts the productivity of the physician as an individual (53%) and the hospital as an organization (54.3%). However, only 33.6% agreed that privatization would improve physicians' satisfaction, while 30.4% disagreed with this statement. 41.4% agreed that it would lead to the availability of better-qualified physicians, whereas 37.8% believe it will not lead to eliminating the shortage of physicians, while 34.1% believe it will. See Figure 3. When asked about their opinions on statements regarding the impact of privatization, 54.3% of physicians agreed that it would give the hospitals higher flexibility in administrative operation and management. Moreover, 52.5% agree that privatization of the healthcare system will eliminate routine and bureaucracy from the system.

When asked whether privatization will improve medical maintenance, 51.1% agreed with the statement. Furthermore, when asked about the impact of privatization on medical technology, 111 (51.1%) agreed that it would allow hospitals to acquire advanced medical technology, with 29 (26.1%) of those who agreed stated they strongly agreed with the statement. See Figure 4.

Relationship between privatization knowledge and domains:

Upon examining the relationship between privatization knowledge represented by knowing what privatization means and the answers to the questionnaire in a positive or negative format using a continuity-corrected Chi-squared test as shown in Table 2. On the question regarding transferring the ownership of public hospitals to the private sectors, the number of physicians who are for privatization was also physicians who claimed they know what privatization means ($p = <0.001$). On a related point, physicians who understand what privatization means were shown to be for the statement; that privatization will benefit the Saudi healthcare system ($p = 0.037$). A higher number of those who know what privatization means were for developing a summary of physicians' views regarding privatization by the Saudi MOH ($p = 0.004$). In the improvements scale, physicians that stated they know what privatization means were lower in the 'against' group compared with the 'for' group (64 in the 'against' versus 79 in the 'for' group) with the lowest expected count of 73.1 ($p = 0.013$). Significantly, physicians that stated privatization would help implement quality policies better (65 in the 'against' versus 78 in the 'for' group) with the value of ($p = 0.07$).

However, 97 physicians who stated they know what privatization means were for the statement 'Privatization of healthcare system will reduce the waste in resources, consumable items, and drugs' compared to 46 who disagreed with it, with the lowest expected count of 54 ($p=0.026$). On the productivity scale, 88 physicians agree with the statement 'Privatization of the healthcare system will improve physicians' productivity on the individual level' compared with 55 who did not agree with it, the lowest expected count of 67.2 ($p<0.001$). In the general statements scale, 91 physicians agreed with the statement 'Privatization of the healthcare system will give hospitals more flexibility in administration operations' compared with 52 who did not agree, with the lowest expected count of 65.2 and a p -value of <0.001 . Moreover, on the statement 'Privatization of the healthcare system will eliminate routine and bureaucracy, 84 physicians agreed compared to 59 who did not, with a lowest expected count of 67.9 ($p=0.016$). A Mann-Whitney U test showed a significant difference ($U=4658.5$, $p=0.034$) in the opinion scale score between the Male and Female groups. The Male physicians' median score was 14.5 compared to 13 in females showing a statistically significant difference in these distributions. However, none of the other scale scores or demographics yielded any statistically significant difference in the distribution.

RESULTS DISCUSSION

The study was directed by physicians at a particular location and did not differentiate between specialties or departments. Due to physicians' critical roles and responsibilities in the clinical field, it was crucial to measure their opinion about privatization, which has been starting recently in Saudi Arabia. Somehow, it can be an essential indicator of the quality management system (Hailu *et al.*, 2020). Significantly, the hypothesis of this study was proved as there is a positive relationship between physicians who understand the meaning of the privatization concept and the effects of privatization on the provided services to the patient. In this study, 217 physicians responded to the questionnaire, and the first table discussed the demographic data. While the second table is for the relationship between privatization knowledge and domains, most participants share three similar characteristics 60.8% were male, 57.6% had experienced more than ten years, and 65.9% knew what privatization means.

Results discussion of privatization perception: When looking at Figure 1, you can have an overview of privatization perception; it clearly shows that 87 out of 217 participants disagreed with the statement, "do you agree on transferring the public hospital ownership to the private sector." This might be due to a lack of knowledge about privatization process. Furthermore, physicians are uncertain about the cons and pros of the transformation process, and we think they are concerned about their job security and stability as privatization may lead in some circumstances to unemployment. This is evident in the last sentence of Figure 1, which is: A majority of physicians (76.9%) believe that the Saudi Ministry of Health should develop a summary representing their point of view. This result is similar to Mayson *et al.* findings, where 64.8% of the participating urologist agreed that the Canadian Urologist Association should develop a summary statement representing the views of Canadian urologists regarding the privatization of healthcare services in Canada (Mayson, Fleshner, and So, 2009).

The agreement to transfer to private ownership may be increased if the MOH is highly aware of such information because 45.6% of the participants agreed that privatizing would benefit our healthcare system. This result is similar to the findings of Hazizi and Chandramohan, who found that privatization will help the Saudi government make faster decisions and decrease expenses (Hazizi and Chandramohan, 2017). At the same time, Rahman and Alsharqi stated that the data on the benefits of privatization of the healthcare industry has been mainly equivocal, with no research providing solid evidence for or against increasing private sector engagement (Rahman and Alsharqi, 2019).

Therefore, we might need qualitative research by interviewing physicians to dig deep into why physicians agree or disagree with privatization and explore their fears. Additionally, 58.5% of the physicians participating in this study agreed that Saudi Arabia would move toward privatization, which clearly shows that physicians know that the government is moving toward privatization eventually. Still, the MOH summary statement must consider some clear points and valuable opinions mentioned by physicians, as 76.9% agreed with the statement.

Results discussion of privatization and improving services: Figure 2 illustrates that the physicians have a positive opinion about the privatization effect on service improvement. The majority (48.8%) agreed that privatization of the healthcare system would shorten patient waiting time and improve access to healthcare services. This result is aligned with the results of a qualitative study by Al-Hanawi, Alsharqi, Almazrou, and Vaidya, 2017, which showed that most of the people in the survey were upset with the long waiting time to access public hospitals. It also showed that patients with insurance in private hospitals have longer waiting times than paying cash patients (Al-Hanawi, Alsharqi, Almazrou, and Vaidya, 2017). While in another peer review article by Almutairi, the author reviewed the effect of healthcare privatization in Australia, where he found that privatization will affect the access of the most disadvantaged people to healthcare services (Almutairi and Al Shamsi, 2018). These differences in the results may be due to the different healthcare systems, the way of implementing privatization, types of insurance, and the government's role in protecting the most vulnerable population. On the other hand, 45.1% agreed that privatization of the healthcare system would improve services outcome, while 49.7% agreed that privatization of the healthcare system would help physicians implement quality policies better. (62.2%) agree that privatizing the healthcare system will reduce the waste of resources, consumable items, and drugs. This may explain that physicians have good knowledge about privatization but not enough to engage them smoothly in the privatization process. Additionally, this aligns with the main objective of the national transformation program as they aim to improve the quality of services and reduce government spending while considering citizens' interests (National Transformation Program, 2022).

Results discussion of privatization and productivity: On the other hand, one of the goals of moving toward privatization is to improve the productivity, as shown in Figure 3. Significantly, the positive expectation remains as participants' responses agreed that privatization positively impacts the physician's productivity as an individual (53%) and the hospital as an organization (54.3%). That is consistent with AlMubarak *et al.* study, which showed that previous research that looked at the economic effects of privatization found that it positively impacted resource utilization and efficiency (AlMubarak *et al.*, 2021). For instance, the privatization of healthcare facilities in Germany led to increased efficiency, even though this was accomplished by a significant reduction in the number of nonclinical staff members, which had a negative impact on the quality of care (Heimeshoff, Schreyögg, and Tiemann, 2013).

Results discussion of general statements about privatization: In Figure 4, physicians continue to expect positivity towards privatization when questioned about their views on comments about the effects of privatization. The results showed that 54.3% of physicians believed it would give hospitals more administrative and managerial freedom. This result was mentioned in the literature review by Hazazi, who found that privatization will improve the government decision process (Hazazi and Chandramohan, 2017). Kuwaiti and Al Muhanna stated that privatization would give the government more flexibility and quick decisions (Kuwaiti and Al Muhanna, 2020). This was also seen in Buraie study, where 85.3% of participants agreed that privatization would give hospital administration more flexibility (Buraie, 2010). In addition, 52.5% agreed that privatizing the healthcare system would decrease routine and bureaucracy. This finding is positively significant and similar to the results of AlMubarak study in the Eastern Province that showed

privatization would reduce the chain of command and eliminate bureaucracy (AlMubarak *et al.*, 2021). In addition, Buraie study showed that 89.2% of participants agree that bureaucracy will be decreased under the umbrella of privatization (Buraie, 2010). Ultimately, Table 2 has four sections; the first section is the opinion scale score showing strong relation with privatization, with 3 out of 4 being statistically significant. The second domain (services improvement scale score) is slightly the same when three out of six is statistically significant. But the third domain (productivity scale score) is different when only 1 out of 5 statements was significant. The last domain was the general statement score scale has only 2 out of 4 statements significantly associated with privatization.

CONCLUSION AND RECOMMENDATION

Current study recommend that the Saudi Ministry of Health raise the level of privatization awareness among its employees. Further research for a longitudinal study be conducted to see the changes that privatization brings about in the Saudi health system, as well as to establish and update a database of healthcare workers' opinions.

Strengths and Limitations of Study: The limitations faced by the author are that fewer studies discussed physicians' opinions about privatization, particularly in Saudi Arabia. However, the study is only conducted in a single region, which is not a multi-center study, and the privatization affects the entire Saudi health system. Additionally, excluding other health care workers may be considered a limitation point which may give more valuable results to this study. However, the study's strengths include that this study is the first study that discusses privatization in Makkah city.

REFERENCES

- Al Asmri, M., Almalki, M., Fitzgerald, G. and Clark, M., 2020. The public health care system and primary care services in Saudi Arabia: a system in transition. *Eastern Mediterranean Health Journal*, 26(04), pp.468-476.
- Albejaidi, F., 2019. The emerging role of cooperative health insurance in achieving health system goals under Saudi Vision – 2030. *Journal of Biology, Agriculture and Healthcare*, 8(2).
- Albejaidi, F. and Nair, K., 2019. Building the health workforce: Saudi Arabia's challenges in achieving Vision 2030. *The International Journal of Health Planning and Management*, 34(4).
- Al-Hanawi, M., Alsharqi, O., Almazrou, S. and Vaidya, K., 2017. Healthcare Finance in the Kingdom of Saudi Arabia: A Qualitative Study of Householders' Attitudes. *Applied Health Economics and Health Policy*, 16(1), pp.55-64.
- Al Hokail, T., 2018. Al Hokail: The Privatization Program will Contribute to Economic Growth. [online] Ncp.gov.sa. Available at: <<https://www.ncp.gov.sa/en/MediaCenter/News/Pages/Al-Hokail-The-Privatization-Program-will-Contribute-to-Economic-Growth.aspx>> [Accessed 12 June 2022].
- Alhowaish, A., 2018. Privatization of Saudi Healthcare Facilities: Is it a Good Strategy?. *International Journal of Scientific and Engineering Research*, 7, pp.390 - 396.
- Alhowaish, A., Alshhiri, F. and Shinwai, A., 2018. REGIONAL INEQUALITIES AND PUBLIC-PRIVATE DYNAMICS IN SAUDI HEALTHCARE PROVISION. *Global scientific journal*, 6(1).
- Alkhamis, A., 2017. Critical analysis and review of the literature on healthcare privatization and its association with access to medical care in Saudi Arabia. *Journal of Infection and Public Health*, 10(3), pp.258-268.
- AlMubarak, S., Alfayez, A., Alanazi, A., Alwuhaimed, L. and Bo Hamed, S., 2021. Autonomy, accountability, and competition: The privatisation of the Saudi health care system. *Journal of Taibah University Medical Sciences*, 16(2), pp.144-151.
- Almutairi, A. and Al Shamsi, H., 2018. Healthcare System Accessibility in the Face of Increasing Privatisation in Saudi Arabia: Lessons From Australia. *Global Journal of Health Science*, 10(7), p.111.
- Alomran, M., 2019. Implementation of Strategic Management Practices in Healthcare Sector in Saudi Arabia. *International Journal of Business and Administrative Studies*, 5(3).
- Al-Salem, A., 2018. Renovation of financing healthcare services in Kingdom of Saudi Arabia, by implementing national health insurance. *World J Pharm Res*, pp.1247-1268.
- Alumran, A., Almutawa, H., Alzain, Z., Althumairi, A. and Khalid, N., 2020. Comparing public and private hospitals' service quality. *Journal of Public Health*.
- Brown, R., 2020. Thinking with the Intimacy Contract: Social Contract Critique and the Privatization of US Empire. *Political Theory*, 48(6), pp.692-722.
- Buraie, H., 2010. Privatization of public hospitals Saudi experience. Prof. King Abdulaziz University.
- Byrne, J., Kras, K. and Marmolejo, L., 2019. International perspectives on the privatization of corrections. *Criminology & Public Policy*, 18(2), pp.477-503.
- Cowley, P. and Chu, A., 2019. Comparison of Private Sector Hospital Involvement for UHC in the Western Pacific Region. *Health Systems & Reform*, 5(1), pp.59-65.
- Data World Bank, 2022. Population growth rate. [online] Available at: <https://www.google.com.sa/publicdata/explore?ds=d5bncppjof8f9&met_y=sp_pop_grow&idim=country:SAU:PAK:EGY&hl=en&dl=en#!ctype=l&strail=false&bcs=d&nselm=h&met_y=sp_pop_grow&scale_y=lin&ind_y=false&rdim=region&idim=country:SAU:PAK:EGY&ifdim=region&hl=en_US&dl=en&ind=false> [Accessed 23 June 2022].
- Hazazi, A. and Chandramohan, S., 2017. Privatization of Saudi health-care system and its significant effect: A review. *International Journal of Medical Science and Public Health*, p.1.
- Hailu, H., Yalew, A., Desale, A., Asrat, H., Kebede, S., Dejene, D., Abebe, H., Gashu, A., Moges, B., Yemanebrhane, N., Melese, D., Ayele, B., Kebede, A. and Abate, E., 2020. Physicians' satisfaction with clinical laboratory services at public hospitals in Ethiopia: A national survey. *PLOS ONE*, 15(4), p.e0232178.
- Heimeshoff, M., Schreyögg, J. and Tiemann, O., 2013. Employment effects of hospital privatization in Germany. *The European Journal of Health Economics*, 15(7), pp.747-757.
- Khan, C. and Nasrulddin, V., 2022. Privatization, Corporatization, and Public-Private Partnership in the Kingdom of Saudi Arabia. *Health Services Insights*, 15, p.117863292211042.
- Kuwaiti, A. and Al Muhanna, F., 2020. Challenges of privatizing academic medical centers in Saudi Arabia and appropriate strategies for implementation. *International Journal of Health Governance*, 25(1), pp.68-77.
- Mayson, B., Fleshner, N. and So, A., 2009. Physician opinion of the privatization of health care services in Canada: a survey of Canadian urologists by the Canadian Urological Association Socioeconomic Committee. *Canadian Urological Association Journal*, 3(3), p.193.
- Mercille, J. and Murphy, E., 2017. What is privatization? A political economy framework. *Environment and Planning A: Economy and Space*, 49(5), pp.1040-1059.
- National Health and Medical Research Council, 2019. Management of Data and Information in Research: A guide supporting the Australian Code for the Responsible Conduct of Research. [online] Available at: <<https://www.nhmrc.gov.au/sites/default/files/documents/attachments/Management-of-Data-and-Information-in-Research.pdf>> [Accessed 23 September 2022].
- National Transformation Program, 2022. National Transformation Program. [online] Vision 2030. Available at: <<https://www.vision2030.gov.sa/v2030/vrps/ntp/>> [Accessed 23 June 2022].
- Polit, D. and Beck, C., 2019. Nursing research. 11th ed. Wolters Kluwer Health.

- Powell, M. and Miller, R., 2014. Framing Privatisation in the English National Health Service. *Journal of Social Policy*, 43(3), pp.575-594.
- Rahman, R., 2020. The Privatization of Health Care System in Saudi Arabia. *Health Services Insights*, 13, p.117863292093449.
- Rahman, R. and Alsharqi, O., 2019. What drove the health system reforms in the Kingdom of Saudi Arabia? An analysis. *The International Journal of Health Planning and Management*, 34(1), pp.100-110.
- Raja, I., 2022. The pros and cons of Privatization. [online] Academia.edu. Available at: <https://www.academia.edu/6902832/The_pros_and_cons_of_Privatization> [Accessed 23 June 2022].
- Ramamonjivarivelo, Z., Weech-Maldonado, R., Hearld, L., Pradhan, R. and Davlyatov, G., 2018. The Privatization of Public Hospitals: Its Impact on Financial Performance. *Medical Care Research and Review*, 77(3), pp.249-260.
- The United Nations, 2018. Towardssaudi Arabia's sustainable tomorrow. [online] Sustainabledevelopment.un.org. Available at: <https://sustainabledevelopment.un.org/content/documents/20230SDGs_English_Report972018_FINAL.pdf> [Accessed 12 June 2022].
- Wills, M., 2018. The Roots of Privatization - JSTOR Daily. [online] JSTOR Daily. Available at: <<https://daily.jstor.org/the-roots-of-privatization/>> [Accessed 18 August 2020].
- Worldometer, 2022. Saudi Arabia Population (2022) - Worldometer. [online] Worldometers.info. Available at: <<https://www.worldometers.info/world-population/saudi-arabia-population/>> [Accessed 23 June 2022].
