INTRODUCTION OF NEW MANAGEMENT STRUCTURE AT SECONDARY HEALTHCARE FACILITIES IN PUNJAB PAKISTAN: HEALTH SYSTEM ANALYSIS

Dr. Sohail Rasool[1*], Dr. Nauman Ali Ch[2], Dr. Muhammad Navid Tahir[3],

[1*]MBBS, DMH, MA, MSc, DDM, DFM, FFFLM, Ireland, Forensic Medical Examiner, General Practitioner, Medical Manager, Ireland

[2]Assistant Professor, Public Health, Institute of Social and Cultural Studies, University of the Punjab, Lahore, Pakistan

[3]Assistant Professor, Public Health, Institute of Social and Cultural Studies, University of the Punjab, Lahore, Pakistan

[*]**Corresponding Author:** Dr. Sohail Rasool
[*]MBBS, DMH, MA, MSc, DDM, DFM, FFFLM, Ireland, Forensic Medical Examiner, General Practitioner, Medical Manager, Ireland

ABSTRACT

Objective: The main objective of this study was to investigate the effectiveness of new management structure that was introduced at secondary healthcare facility in Punjab, Pakistan

Methods: The study was conducted in a qualitative paradigm. 24 IDIs were conducted with the relevant stakeholders along with 10 FGDs were conducted with the NMS teams. Multistage random sampling technique was used to select research participants. Data were analyzed using thematic analysis approach however field observation was used to facilitate presentation of the results. The themes were generated from the objectives of the study and the results were presented under these themes.

Results: Findings of the study shows that the induction of NMS under revamping program was a good initiative that has brought some apparent improvement in hospital operations and service delivery. It has been evident from the study's findings that the newly inducted officers were more efficient as compared to the old clerical staff and the NMS team is specialized in their own respective fields that has made a mark difference in the working of the administration. An overwhelming majority of research participants agreed that the NMS team comprised of well-educated and dynamic young professionals who would swiftly overcome any challenges that they might face due to limited experience, and has positive effect on the overall Hospital Performance. However, few stakeholders

highlighted the need for grievance redressal committees, a robust service structure in terms of postings and promotions, and the need for further capacity building of NMS teams.

Conclusion: The New Management Structures across all the secondary hospitals in the Punjab have played a vital role in improving the overall condition of healthcare service delivery in District and Tehsil Headquarters Hospitals. This can be unwaveringly inferred that an efficient workforce alike NMS teams is crucial to upgrade and facilitate smooth transition of the hospitals under the revamping project.

Introduction

Hospitals are one of the significant components in any country's healthcare system. Amendment in healthcare system is inconceivable without paying attention towards these centers and ameliorating their performance as well. These centers play a paramount role in the provision of services and alleviating the health state of a country (Bayrami, Rezazadeh, & Ebrahimipour, 2017). Keeping up with latest clinical technology, insuring proficient workforce and upholding patient safety measures are the central roles of the hospitals that necessitate a robust management and administrative capacity (Siddiqi et al., 2012). For effectual delivery of health services, countries require to develop a diligent and skilled health workforce with vigorous administrative strategies, as investment in management enhances the health outcomes of any country's population (Dorgan, 2010). In the present times, hospital management has a significant part in evolving the goals of health-care system, along with ensuring the quality of care at the hospitals (Mohammed, Elfattah, Elwahab, & Development, 2019; Pourrostami et al., 2020).

There is a growing need for liability of health services with the upsurge of New Public Management Model within healthcare sector since health services are expected to adhere to rigorous accreditation measures in patient safety and in the effectiveness of care provision (Rotar et al., 2016; Spehar, Frich, & Kjekshus, 2014). Consequently, it has been encouraged to recruit doctors on management positions to bridge the gap between clinical workforce and non-clinical administrators (Jeon, Glasgow, Merlyn, & Sansoni, 2010). It has been evident that medical workforce in management roles has contributed in improving the clinical governance, care quality, social performance and patient safety across the healthcare sectors (Daly, Jackson, Mannix, Davidson, & Hutchinson, 2014). Yet, the medical workforce is viewed to be hard to engage in administrative endeavors from the management viewpoint (Imran, Rog, Gallichio, & Alston, 2021). When clinicians are engaged in managerial roles, they are tended to be 'keen amateurs' rather than trained managerial professionals, often not meeting the prospects vested in them (Lega & Sartirana, 2016). Managerial and clinical logics are difficult to reconcile for doctors seeking to enter management since management is more of an administrative domain and administrators are viewed as team players with diverse backgrounds, whereas clinician's over identification with their professional clinical role and their tendency to be conservative individualists rather than a team player undermines hospital management and organization strategy (Keller, Giafaglione, Chrisman, Collins, & Vogelzang, 2019; Spehar et al., 2014).

Literature Review

Research showed that the most effective management teams incorporate members with diverse knowledge, proficiencies and subjective viewpoints, besides their authority is disbursed unevenly. Such management teams are well equipped for promoting strategic changes in health-care system and to ameliorate patient care effectiveness (Naranjo-Gil & Hartmann, 2006; Smith, Houghton, Hood, & Ryman, 2006). It has been evident that clinicians often progress in clinical management roles, but when they have to take on absolute administrative roles, no matter how proficient they find themselves unskilled and unprepared experiencing high administrative workload (Imran et al., 2021; Spehar et al., 2014). Hence, establishing managerial aptitude within hospitals is an imperative strategy to improve the performance and quality of overall health-care system. Over the last few years, the induction of robust management structure has developed as a crucial function and skill set in the field of healthcare delivery that has improved the patients' health outcomes as well (Rabbani et al., 2015).

In 2007, the Regional Committee of the Eastern Mediterranean of World Health Organization laid emphasis on the significance of management and leadership within the healthcare sector, as various countries in the EMR have been subjected to dual burden of diseases and this has become even more crucial at the present time. For that reason, health services in EMR necessitated an effective management team in both public and private sectors that could plan and implement the health program and would be able to sustain the health structures in consistent with the population's needs (Organization, 2012). Research showed that paucity of managerial capacity is one of major factors behind the failure of several public health measures and health initiatives in various developing countries (Daire, Gilson, Cleary, & Systems, 2014).

As healthcare system in each country is uniquely organized, the health policy planners need to provide customized solutions to ensure greater managerial capability and effectiveness. With the upsurge in public attention towards health problems, it has come to be even more crucial for the public funded hospitals to sustain the confidence/credence of the patients, especially in a country like Pakistan where frequent outbreaks of communicable and non-communicable diseases compound the number of incoming patients (Weber et al., 2017). Consistent with the present state, healthcare sector has been hard-pressed for effectual delivery of health services. Scientific evidence suggests that competent and well-organized management structure might reduce the due pressure on the delivery of health services substantially than formerly expected (Mishra & Suar, 2010).

Provision of quality Secondary Healthcare Services to all segments of society across Punjab (Pakistan) has been one of the top priorities of the provincial governments. There are 25 District Headquarter Hospitals and 100 Tehsil Headquarter Hospitals providing Secondary Healthcare services across the Punjab. The government undertook numerous initiatives to improve not only the condition and environment, but also the medical services rendered by these hospitals. For enhancing the capacities of health-care systems, majority of efforts were made in improving clinical and health-care skills without paying much attention to the development of hospital management in spite of having its extensive role in raising the quality and performance of health-care system (Figueroa, Harrison, Chauhan, & Meyer, 2019). It has been evident that there is an immense need to transform the structure of health care sector of Pakistan to enhance the health outcomes and to alleviate the health state of the country (Weber et al., 2017). Revamping program of District Headquarter (DHQ) and Tehsil Headquarter (THQ) hospitals (2016) can be cited as a representative initiative of the Government to reform healthcare sector in Punjab. This revamping program encompasses a reform agenda for human resource development, in which health policy planners of the Punjab introduced a *New Management Structures (NMS)* 'team of non-clinical management graduates' in DHQ and THQ hospitals. With the induction of new non-clinical staff, the positions of Clerks and Accountants have been replaced with Procurement Officers, Admin Officers, HR/Legal Officers, IT/Statistical Officers, Audit Officers, Finance & Budget Officers, Quality Assurance Officers, Logistics Officers & Bio-Medical Engineers etc. Recruitment of specialized management staff ought to be the first logical step in the direction of efficient hospital management systems. This study was designed to access the efficacy and impact of this initiative, after three years of execution of this intervention.

Methods
Study Design and Data Collection
This study was conducted in a qualitative paradigm. A semi-structured interview guide was prepared for the data collection that comprised both open and close-ended questions and characteristics of both descriptive and analytical question. Twenty-four In-depth Interviews (IDIs) were conducted with the relevant stakeholders and ten Focus Group Discussions (FGDs) were conducted with the NMS teams.

Sampling:
Multistage random sampling technique was used to select health facilities and research participants. There were 26 DHQs and 100 THQ hospitals providing Secondary Healthcare services in Punjab. The project revamping of DHQ and THQ project was divided in two phases. In first phase, 25 DHQ and

15 THQ hospitals of Punjab were selected for revamping and in second phase, of the program, 85 THQ hospitals were selected for revamping. However, for this study sample was selected randomly from 40 hospitals (25 DHQ & 15 THQ) of project Phase-I, wherein, NMS was fully functional.

Data Analysis
Data were analyzed using thematic analysis approach collected through IDIs and FGDs, while field observations was used to supplement the qualitative data. The themes were generated from the objectives of the study. The inferences were drawn based on the established themes. The results were presented under the themes and categories created from observations checklist and note taking were merged in the final presentation.

Ethical Consideration
The study was conducted according to the ethical guidelines and the purpose of the study was explicated to the research participants. The participation was voluntary and participants had the right to withdraw from it at any part. Informed consent of participants was obtained and privacy and confidentiality were maintained throughout the data collection process and while presenting the study findings.

Results
Comparative Analysis of NMS Team and Old Clerical System
Findings of the data from in-depth interviews (IDIs) and Focus Group Discussions (FGDs) revealed that the NMS team is performing better than the old clerical system. Nearly, all MSs and CEOs were of the view that the NMS staff has increased the efficiency of the working environment and quality of service delivery to the patients. As far as the service delivery is concerned, the CEO was of the view that: *"The service delivery to patients has been improved and the operations of the hospital have become more systematic."* A similar notion was expressed by the MS: *"Previously, there was a lot of burden on MS alone and he was bound to do all the work. Now MS is relieved of some workload. Along with that all of the issues have been streamlined now such as logistic, cleanliness, attendance, record keeping and financial matters have improved."*

There were some concerns regarding experience of the NMS team, as the clerks were experienced, and they had served many years. However, given that the NMS team was young and educated, most of the officials stated that they are good learners and adapting quickly. In the words of an MS: *"NMS team is highly qualified and they understand all of the matters and they know how to deal with them in a correct manner. They are quick learners. Moreover, every team member of NMS has his own specialization."*

On the other hand, the Member Health Planning and Development Department was of the view that the positions sanctioned under the NMS are huge in number that should be reduced. As per the Member HNP, Planning and Development Board: *"The number of posts under NMS intervention is very huge and various posts may be merged into one post."* However, this view was only expressed by the Member Health and not represented the majority view in this regard. Majority of the study participants suggested that the NMS is a critical intervention that should be sustained.

After the detailed analysis of this theme, it was concluded that an overwhelming majority of stakeholders were of the view that the NMS team has positive effect on the overall hospital performance and functions.

Contributions, Willingness to Work and Acceptance of NMS Team
The questions under this theme were designed particularly for the MS and CEOs to assess the willingness and work done by NMS team to make certain contributions regarding the betterment in administrative and managerial affairs of hospitals, moreover to assess the acceptance of NMS team by the hospital administration including doctors and allied staff. It was observed that NMS had made commendable efforts to ensure efficient management of hospital operations. Majority of the MS and

CEO responded to it positively. An overwhelming majority (90%) of the interviewees valued the work done by NMS teams. In the words of an MS: *"NMS component of revamping package is a good intervention. With this intervention P&SH Department can achieve the desire standard, goals and policy decision regarding the revamping of health system of Punjab."* As per the CEO: *"As whole of the NMS team is well educated that is why with passage of time their experience will increase."*

When asked about the acceptance of NMS by the hospital staff, it was highlighted that doctors were not appreciative of NMS staff's efforts yet but most MSs were trying to bridge the gap between the NMS and hospital staff. One of the MS stated: *"Doctors are not accepting NMS yet, but the MS is trying to bring in acceptance from the hospital side, towards NMS."* As per the CEO: *"The acceptability factor of the work produced by the NMS has a 50 – 50 acceptability in the Hospital."* Additionally, the senior hospital staff was critical of the NMS as well. However, this was not a unanimous view and some of the participants boasted of effective coordination between NMS and other hospital staff.

This theme concludes that the NMS teams have the willingness to contribute towards a better Hospital Management System. Although clinical staff was reluctant to accept them but this problem has been overcome to some extent due to efforts of MS(s).

Representation of NMS in Hospital Administration
The data revealed that members of NMS team were present on almost all of the major non-clinical committees of the hospital. It was observed that the NMS staff had representation in procurement, technical and IT committees at all the DHQs and THQs. One of the MS, when asked about their representation in committees, stated that: *"Yes, they are representing in the Finance Budget Committee, Waste Management Committee, Quality Enhancement Committee and Committees relevant with their specializations."* One of the CEO listed their representation as: *"Yes, they are in the District Procurement Committee, Waste Management Committee, Quality Enhancement Committee, Infection Control Committee and Hospital Medicine Committee."*

It could be established that the reason NMS staff was present in majority of these committees, is because they have a specialized degree related to these committees. The research participants reported that the presence of NMS team members in these committees was very beneficial for the betterment of hospital procedures, the reason being their educational and technical backgrounds.

Institutional Arrangement and M&E Mechanisms for NMS Team
A set of questions were asked from the research participants regarding the institutional arrangement, chain of command and M&E mechanisms for the NMS team. In response to the questions related to this subject, there was a consensus among the participants that the NMS staff should directly report to MS of the hospital whereas MS could report the NMS issues to CEO of District Health Authority, and CEO could then report the same to the Secretary P&SH, if and when required. Only 2 of the 20 respondents opined that the reporting mechanism should be within PMU. However, majority of the MS and CEOs opposed this idea and stated that PMU should be separated from NMS as far as the reporting mechanism is concerned. One of the CEO said that, *"There should be no direct link between NMS and PMU, reporting mechanism should be through MS."* Another CEO stated: *"NMS should report to MS and MS should make performance indicators."*

When asked about the performance and M&E of the NMS, it appeared that around 90% of the hospitals had such M&E mechanisms in place. The MSs of the selected hospitals said that the M&E task is a time-oriented and periodic task. Some suggested it to be done on quarterly or annual basis whereas the others favored monthly reporting. One of the MS stated: *"Yes, it is done by hospital MS. M&E should be performed in quarterly and annually basis."* Another MS said that: *"Yes, by PMU, but the procedure should be on monthly basis by MS and MS should report to CEO."* In the words of the CEO: *"Yes, by hospital MS. Monthly progress should be generated from MS and CEO will scrutinize it."*

The schematic presentation of proposed monitoring and reporting mechanism is presented as:

"NMS--› MS of Hospital --› CEO of DHA--› Primary and Secondary Healthcare Department"
Secretary P&SH while responding to this query said that there are initiatives in pipeline to address this matter. One option could be the establishment of a new cadre or there could be Regional Health Authorities established for this purpose.

Mapping the Suggestions and Recommendations
On *"what steps should be taken to enhance this system and what policies should be implemented to improve the performance of the NMS staff",* following responses were made by CEOs and MS of the hospitals.
All research participants agreed to a *grievance redressal committee* at each hospital level that would cater to apprehensions and complaints of NMS team. They suggested that the redressal committee should consist of MS, CEO, one or two staff members from the NMS team and a person from the clinical side to ensure impartiality. This was emphasized by every research participant. Similarly, the Secretary P&SHD said that there were some ideas under consideration regarding this matter.
The Secretary P&SHD suggested that there should be a proper *service structure and a promotion channel for the NMS staff*. MSs and CEOs had same suggestions and recommended a following promotional channel for NMS team. They further suggested that local people should be preferred while hiring the staff for NMS. Another suggestion given by the Senior Chief Health was the scaled promotion without transfers. Similar view was shared by the Member Health P&D. On the posting mechanism, it was suggested that it should be from THQ to THQ and from DHQ to DHQ. The research participants also suggested that proper *periodic trainings and capacity building workshops* should be arranged for the NMS teams.

Discussion
This study suggests that the induction of New Management Structure (NMS) under revamping program is an effective initiative that has brought some apparent improvement in hospital operations and service delivery. Particularly hospitals non-clinical functions (administration, human resource management, procurement & audit, stock & logistics etc.) and services (laboratory & pathology, janitorial & cleanliness, hospital waste management, infection control, laundry etc.) have been significantly improved. Moreover, the patient turnover has increased due to the revamp in the management structure. In line with the present study, research suggests that for effectual delivery of health services, countries require to develop a diligent and proficient health workforce with vigorous administrative strategies, as investment in management enhances the health outcomes of any country's population (Dorgan, 2010). Hence, establishing managerial aptitude within hospitals is an imperative strategy to improve the performance and quality of overall health-care system.
It has been evident from this study's findings that the newly inducted officers are more efficient as compared to the old clerical staff and the NMS team is specialized in their own respective fields that has made a mark difference in the working of the administration; since the effective supervision is being carried out at the administration level and fair utilization of resources is being performed now. Previously, there was a lot of work that was to be done by the MS due to which he could hardly take out time to work towards better administration. It is pertinent to mention here that the performance of allied health care branches has been improved, because every person has been working in its own capacity. Due to this initiative taken under the revamping project, an overwhelming majority of research participants agreed that the NMS team comprised of well-educated and dynamic young professionals who would swiftly overcome any challenges that they might face due to limited experience, and has positive effect on the overall Hospital Performance. Researches also showed that the most effective management teams incorporate members with diverse knowledge, proficiencies and subjective viewpoints, besides their authority is disbursed unevenly. Such management teams are well equipped for promoting strategic changes in health-care system and to ameliorate patient care effectiveness (Naranjo-Gil & Hartmann, 2006; Smith et al., 2006).

Data suggests that NMS system is a robust model designed to cater the needs of the hospital and the ease of doing work has been improved. Furthermore, each and every activity is documented which in turn bring down the dishonesty in work. The reason why clerks were blamed for being involved in certain illegal activities is because formerly the clerical staff was responsible for everything; ranging from financial matters to procurement of machines, medicines and other administrative tasks as well. After the execution of NMS, professional people are available for particular tasks. For procurement tasks there is a procurement officer, for IT related tasks there is an IT officer, Finance and Budgeting officer for the allocation and budgeting of the hospital budget. Everything is properly monitored by the NMS provided in the DHQ & THQ hospitals. Consequently, corruption, immoral practices, and operational red-tape, all of which were previously hindering hospital healthcare service delivery, have been massively curbed due to this intervention.

Based on our study findings it has been observed that the NMS staff is highly motivated as of now and is working with an untiring resolve nonetheless this motivation is transient since the NMS staff is hired on temporary basis. The job guarantee is something that they are going to worry about at some point in time. In this cadre, there are not enough opportunities for them to grow. The apprehension regarding possible demotivation among NMS teams highlights the importance of prior planning in terms of service structures, postings, transfers and promotions. These findings are consistent with the data from other developing countries which shows that clear job descriptions, distinct career paths and promotion prospects on all levels of the healthcare system have an immense impact on the motivation and performance of the health workforce (Fritzen, 2007). Moreover, certain factor of resentment from the existing hospital staff in terms of acceptance of the NMS staff had also been observed as clinical staff was reluctant to accept them but this problem has been overcome to some extent due to efforts of MS(s).

Another thing that was spotted/witnessed in the interviewing process was the absence of a redressal mechanism since there was no proper mechanism to cater to the grievances of the NMS staff. Researches indicate that planning of routine meetings for the managers to discuss their needs, to identify their stumbling blocks and to represent their ideas is an imperative strategy for assessing managerial aptitude and ameliorate the performance and quality of overall health-care system (Liang, Howard, Koh, & Leggat, 2013; Organization, 2007a). Therefore, it is suggested that there should be a proper service structure and a promotion channel for the retention of NMS staff and sustainability of revamping project. The research participants also suggested that proper periodic trainings and capacity building workshops should be arranged for the NMS teams. Results of a study conducted in Zimbabwe demonstrate that inadequate funding, absence of management training and lack of incentives and/or motivation are the major obstacles in achieving public health goals (Muchekeza, Chimusoro, Gombe, Tshimanga, & Shambira, 2012).

The current study also depicts that there were M&E protocols in the hospitals and this process was going on quarterly. As, Monitoring and Evaluation acts as a process of performance measurement and can be seen as an accountability process, consequently should be implemented in a more sustainable way. The protocol chain of command varied from hospital to hospital. At some places, it came under the purview of PMU, at some places it was done by CEO whereas at remaining places it was done by MS. It was suggested by the majority of research participants that initially this process should be done by the respective MS on quarterly and annually basis, so that the performance of NMS staff can be gauged through this exercise. In many studies prior to ours, revealed that effectual supervision, assistance and monitoring of team performance with frequent meetings from different supervisory levels enhance managers work conditions. Since giving close and thoughtful attention to management team's issues and challenges, encouraging the staff, and monitoring and evaluation of their functioning might prove an applicable resolution in attaining desired performance on all level of management and evolving the goals of overall health-care system(Organization, 2007b, 2009).

Conclusion

The New Management Structures across all the secondary hospitals in the Punjab have played a vital role in improving the overall condition of healthcare service delivery in District and Tehsil Headquarters Hospitals. It appears that the facilities provided to the public at secondary level have increased the trust of general public towards public health facilities. It could be anticipated that this intervention may contribute to further increase patient load at secondary level and lesser patient turnover at tertiary level healthcare facilities. This trend is encouraging and gives the resource constraints at the tertiary level, it is of paramount importance that patients are homogenously distributed across the three health tiers.

This can be unwaveringly inferred that an efficient workforce alike NMS teams is crucial to upgrade and facilitate smooth transition of the hospitals under the revamping project. The same has been deduced from the data collected through the fieldwork. However, the acceptability challenges being faced by NMS teams point to a need for a proper grievance redressal mechanism and comprehensive orientation sessions and networking events with existing colleagues with a view to ensure smooth induction of new staff under NMS.

References

1. Bayrami, R., Rezazadeh, A., & Ebrahimipour, H. J. H. (2017). Challenges in emergency departments in teaching hospitals of Mashhad University of Medical Sciences: A qualitative study. *16*, 63-72.
2. Daire, J., Gilson, L., Cleary, S. J. C. T. R., & Systems, R. H. (2014). Developing leadership and management competencies in low and middle-income country health systems: a review of the literature.
3. Daly, J., Jackson, D., Mannix, J., Davidson, P. M., & Hutchinson, M. J. J. o. H. L. (2014). The importance of clinical leadership in the hospital setting. 75-83.
4. Dorgan, S. (2010). *Management in healthcare: why good practice really matters*: Centre for Economic Performance, LSE.
5. Figueroa, C. A., Harrison, R., Chauhan, A., & Meyer, L. J. B. h. s. r. (2019). Priorities and challenges for health leadership and workforce management globally: a rapid review. *19*(1), 1-11.
6. Fritzen, S. A. J. H. r. f. h. (2007). Strategic management of the health workforce in developing countries: what have we learned? *, 5*(1), 1-9.
7. Imran, D., Rog, K., Gallichio, J., & Alston, L. J. B. h. s. r. (2021). The challenges of becoming and being a clinician manager: a qualitative exploration of the perception of medical doctors in senior leadership roles at a large Australian health service. *21*(1), 1-9.
8. Jeon, Y.-H., Glasgow, N. J., Merlyn, T., & Sansoni, E. J. B. H. S. R. (2010). Policy options to improve leadership of middle managers in the Australian residential aged care setting: a narrative synthesis. *10*(1), 1-11.
9. Keller, E. J., Giafaglione, B., Chrisman, H. B., Collins, J. D., & Vogelzang, R. L. J. P. o. (2019). The growing pains of physician-administration relationships in an academic medical center and the effects on physician engagement. *14*(2), e0212014.
10. Lega, F., & Sartirana, M. J. B. H. S. R. (2016). Making doctors manage… but how? Recent developments in the Italian NHS. *16*(2), 65-72.
11. Liang, Z., Howard, P. F., Koh, L. C., & Leggat, S. J. A. J. o. P. H. (2013). Competency requirements for middle and senior managers in community health services. *19*(3), 256-263.
12. Mishra, S., & Suar, D. J. J. o. b. e. (2010). Does corporate social responsibility influence firm performance of Indian companies? *, 95*(4), 571-601.
13. Mohammed, N. E., Elfattah, M. A. E. A., Elwahab, E. A. A. J. I. J. o. P. H. R., & Development. (2019). Effect of Training Program on Unit Managers' Mentoring Knowledge and Skills at Selected University Hospital-Egypt. *10*(10).

14. Muchekeza, M., Chimusoro, A., Gombe, N. T., Tshimanga, M., & Shambira, G. J. B. h. s. r. (2012). District health executives in Midlands province, Zimbabwe: are they performing as expected? , *12*(1), 1-6.

15. Naranjo-Gil, D., & Hartmann, F. J. J. o. M. a. r. (2006). How top management teams use management accounting systems to implement strategy. *18*(1), 21-53.

16. Organization, W. H. (2007a). *Managing the health millennium development goals: the challenge of management strengthening: lessons from three countries*. Retrieved from

17. Organization, W. H. (2007b). *Towards better leadership and management in health: report of an international consultation on strengthening leadership and management in low-income countries, 29 January-1 February, Accra, Ghana*. Retrieved from www.who.int/entity/management/working_paper_10_en_opt.pdf?ua=1.

18. Organization, W. H. (2009). *Who are health managers: case studies from three African countries*: World Health Organization.

19. Organization, W. H. (2012). *Health systems strengthening in countries of the Eastern Mediterranean Region: challenges, priorities and options for future action*. Retrieved from

20. Pourrostami, K., Heshmat, R., Hemati, Z., Heidari-Beni, M., Qorbani, M., Motlagh, M. E., . . . Obesity. (2020). Association of fruit and vegetable intake with meal skipping in children and adolescents: The CASPIAN-V study. *25*(4), 903-910.

21. Rabbani, F., Hashmani, F. N., Mukhi, A. A. A., Gul, X., Pradhan, N., Hatcher, P., . . . Management. (2015). Hospital management training for the Eastern Mediterranean Region: time for a change?

22. Rotar, A., Botje, D., Klazinga, N., Lombarts, K., Groene, O., Sunol, R., & Plochg, T. J. B. h. s. r. (2016). The involvement of medical doctors in hospital governance and implications for quality management: a quick scan in 19 and an in depth study in 7 OECD countries. *16*(2), 99-109.

23. Siddiqi, S., Elasady, R., Khorshid, I., Fortune, T., Leotsakos, A., Letaief, M., . . . Sahel, A. J. I. J. f. Q. i. H. C. (2012). Patient Safety Friendly Hospital Initiative: from evidence to action in seven developing country hospitals. 144-151.

24. Smith, A., Houghton, S. M., Hood, J. N., & Ryman, J. A. J. J. o. B. R. (2006). Power relationships among top managers: Does top management team power distribution matter for organizational performance? , *59*(5), 622-629.

25. Spehar, I., Frich, J. C., & Kjekshus, L. E. J. B. h. s. r. (2014). Clinicians in management: a qualitative study of managers' use of influence strategies in hospitals. *14*(1), 1-10.

26. Weber, A. S., Turjoman, R., Shaheen, Y., Al Sayyed, F., Hwang, M. J., Malick, F. J. J. o. t., & telecare. (2017). Systematic thematic review of e-health research in the Gulf cooperation council (Arabian gulf): Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. *23*(4), 452-459.