

“Quality improvement of health services in primary care centers”

Authors

 *Hoda Hegazy Ali¹; Heba Elsayed²; Dina Saad ALghobashi³; Shimaa Mosad Aldeep⁴; Nesma Hassan Eltanahy⁵; Amr Ahmed Ghazal⁶; Aya Ahmed Leil⁴; Rowida Ahmed Yousef⁴; Enas Mohammed Elsalamony⁷; Hanan Elkhedr Abo Elhoda⁸; Aya Seif Elshahat⁹*

¹ Faculty of pharmacy, Mansoura University

² Port Said University

³Faculty of Pharmacy, Mansoura University ⁴Faculty of Pharmacy, Mansoura University ⁵Faculty of Pharmacy, 6th of October University ⁶Faculty of dentistry, Alexandria University

⁷Faculty of Pharmacy, Masr University for science and technology

⁸Faculty of pharmacy, El Azhar University

⁹Faculty of Dentistry, Delta University

Abstract

Paying attention to enhance the quality of health services benefits both the individual and the society in addition to building trust between the health system and individual taking into account the right of patients and ensuring their satisfaction with the health service by setting accreditation and reviewing the strategy for providing the best services to patient. [1].

Outpatient care refer to multiple varieties of health services, such as emergency department services, observation services, outpatient surgical services, laboratory, pharmacy and radiology. The term outpatient often refers to a patient who goes home after receiving treatment in the same day but may include a patient who spends a night at the hospital under observation or waiting for inpatient admission order. One of the main drawbacks in outpatient clinic in long waiting time which affects the quality of services. Many health care centers and hospitals around the world find solutions to overcome this problem such as increasing the working personnel or applying modern and creative ways in management. Increase the efficiency of family planning programs (maternal, neonatal and child health services) [2]. To develop the outpatient Quality improvement program the proposed actions are:

- Develop a vision and purpose for outpatient services.
- Define the training requirements for staff to enable the delivery of the quality improvement program to support at a management level.
- We should deal with patient as if they are equal partners in planning and improving care by continuing to listen and working together with our patients and the public, participation will be successful and meaningful.
- Staff at all levels within the services are an integral component in the quality improvement program [3].

Health care units spend a lot of money and time on quality development and so the patient satisfaction is a key measure in this process. Therefore the completion of patient satisfaction surveys is a critical requirement [4].

Primary care providers are best situated to impact the quality of care at the beginning of the treatment. Also can act as the core for patient- centered care. Primary care physicians tend to build strong connections with their patients and better understanding the patient's demands.

Joint working between primary care practitioners and specialists, intervention to change the referral behavior of primary care practitioners and interventions to change patient behavior including:

- Collect data and analyze patient outcome.
- Determine goals and carry out continuous evaluation.
- Connect and collaborate with other department and hospitals
- Discussions were carried out and strategies were developed for processing time of the delays in appointments
- Doctors and surgeons can enhance health care quality for their patient by applying the certified protocols to keep patients free from infections.

key words

Health care, Primary care, Quality improvement, patient, services.

Introduction

Any continuous improvement relies on quality as a key element in overall health insurance all countries are driven to accomplish health insurance coverage and protect patient from financial risks to obtain excellent health services. Quality is how much the increase in healthy lives by the available health services and linking them with a well detailed data base and how to measure health care

quality to get further more enhancement health care services .The elements of quality is:

- ❖ Efficiency : By increasing usage of available resources and decrease any wastes
- ❖ Security : Avoid any harmful threats for the patient
- ❖ Focusing on patient needs : Providing them with what they require with the least cost
- ❖ Right timing : Demolish waiting lists and harmful delay for some severe conditions
- ❖ Fairness : Regardless to their gender& age& social status & religion health care services must be provided for them all
- ❖ Inclusion : Uphold all kinds of services in all levels
- ❖ Effectiveness: Apply health care services for patient on data base.

Aim of work

Primary health care aims to improve health outcomes, efficiency and patient safety through health services that are integrated, synchronized and respond to personal and society requirements.

Methodology

These steps including:

- Initiate a refinement of quality in our experience. Our experience, association, procedures, mechanisms should support and be combined with our QI efforts (5).
- Decide and arrange hidden areas for improvement. We will need to analyze and understand the way in which our experience could be better. Scan our patient population (for example, to classify barriers to care, constantly diagnosed chronic patients, or groups of high-risk patients) and

our practice procedures (for example, classify management issues like long patient wait time) to mentor our effort (6).

➤ Accumulate and evaluate data. Data accumulation and evaluation lie at the center of quality strengthening. Our data will help us know how our organization work, determine hidden areas for improvement (7).

➤ Conduct our result. Quality strengthening attempts should be clear to our patient, staff and physicians (8).

➤ Achieving continuing evaluation. Quality strengthening and improvement is a continuing process. A high running form will help in seeking to strengthening performance continuously, redefine the validity of intervention and frequently ask staff and patient feedback (9).

Models and Tools to improve quality in health care

These models includes :

- (PDSA) cycle: (Plan-Do-Study-Act) cycle; it is four stage problem-solving model used to improve process or carrying out changes.
 - Plan: identify a problem and possible solution.
 - Do: test the solution.
 - Study: analyze the data and study the result.
 - Act: improve the plan for better solution.

The institute for healthcare improvement model combine two common model:

1. Total quality management

2. Rapid cycle improvement (10).

➤ Six sigma: method that eliminate defects in healthcare and reduce the variation

(11).

➤ Lean: it is a method that increase the quality of work process and make it useful

(12).

Discussion

The difficult tasks to improving the quality of primary healthcare all over the world are six items. First, there is frequently a misconception of quality meaning, Waze to improve and upgrade quality of primary health care to upgrade health system performance and health consequence. National strategic nears to quality are frequently disengaged from local primary healthcare attempts faced by primary health care teams are frequently disregard when adjust national directions. Third, attempts to measure indicators at the primary health care level are detached from upgrading efforts. Fourth, attempt to make better quality at the primary health care level are not joined with health service delivery such as health teams and hospital level care. Fifth, inventiveness are frequently seen as projects time bound and not enclosed in a longer term to develop the quality of primary health care. Finally, confirmations based interventions that are acquired are not correspondently applicable [13].

Primary health care is the starting point of the health system. The tasks of primary healthcare is to harmonize the care of people and their health wants both in primary care facilities, individuals and populations. Primary health care maybe in several way. Anyway, consonant to all as demonstrations are it's merits that come towards health and providing of health services which are reached from evidence of potential health benefit. This is in need of services first cause no hurt; first concern must be given to the vital structures and systems to make sure safety of primary health. All services of health have the ability to cause harm such as infection misdiagnosis over treatment medication errors antimicrobial resistance or treatment side effects can be occurring. It's very important to make sure of safety in primary health care; a title to all areas of quality in the health system must be given by policy makers and appliers [14].

It is necessary to concede that the quality of primary health care which can be pretentious by the current health system Media. Health systems are complicated and interconnected, frequently working within numerous

components at the micro and macro level. Health systems are flexible; they can't change as maintained by the local environment due to demographic shifts, hygienic trends, and means availability and outside of emergencies. Health systems news do health services that patients need. Quality development can be approaching in many settings. Concentrating on exchange processes that can be explained as exchange process in healthcare systems, suppliers and services for the aim of increasing the probability of optimal quality of care estimated by positive health results for individuals and populations [15].

The masterplan that formally involves the analysis of process, attempts data and application of systematic attempts to make better performance. Assistance delivery level, quality improvement is the activity of everyone working to implement miserable change to make health services more safe, people-centered and effective [16].

The quality of primary healthcare helping hands depends on a prime care crew that is reached, carried and inspired to give high quality care. Public Crew plans can help address weakness in numeral, spread and keeping of health professional workers. Primary health care workers should be taught with the finest available knowledge and must be organized by public bodies. Holding up keeping an eye on presentation are necessary for insuring a high production of primary health care crew. Public bodies for signing up and authorizing of health professionals are so important in Local quality system, and make sure that important professional standards are reached by workers in quality system [17].

The primary healthcare quality may also keeping up into and out of local and subnational strategies to be sure that facilities of primary Care occurred well. Quality attempts can be managed by directorates through having a well drawing up strategy and quality policy. Directorates or managements are in need of describing responsibility for quality throw primary health care and make sure that improvements managed by the aims of common has coverage set up quality into understructure of the process with a specific focal points on primary health

care. Nevertheless directorates or managements are in need to make sure that health system have a frame of information and technology which have the ability of measuring the primary healthcare quality. A clear corporations between health suppliers and health purchasers to improve Care quality; sit and support executing true in primary health care to achieve high performance quality care; acquiring and budgeting and mission. Mains of merits; and budgeting experimentations on quality improvement primary health care system leadership are what primary health care depends on [18].

Recommendations to improve quality in health care

1. The health care of the patients should be the first priority.[3]. The government should:

- Direct health sector managers to raise awareness of patients, families and all beneficiaries of all services available for each category.
- Improve the skills of health care service providers by continuous training and support to communicate information to patients.

2. Enhance patients and providers facility to handle the health care system [19] through changing its process to personal health information lapse and retains patient information secure by creating a powerful data information system.

3. Assist patients and providers at every step during the service provided. these steps are:

- Cooperate with health professionals to establish all patients connected of health services in the community.
- Cooperate with primary care providers to establish they have information to link with all appropriate community providers.
- Cooperate with health sector leadership to enhance patient approach to services.

- Facilitating the work of medical leaders and forming strong partnerships with the primary care sector.
 - Primary care providers should encourage these partnerships.
4. Provide multiple choices for health care delivery, such as focusing on the use of virtual means of delivery. [22]. The government should:
- Cooperate with health care providers to increase access to virtual visits for patients.
 - Using tools available for virtual communication with patients, such as telephone calls, SMS and emails.
5. The data should be designed in a specific, clear and organized way and used regularly throughout the healthcare system to enhance health outcomes [23]. The government should:
- Confirm that data is used successfully as a management tool to improve care.
 - Raising the efficiency and quality of service provided to patients in primary care by expanding the use of artificial intelligence and data analysis.
6. Continuous support and coordination between health and social services to reach the specific goals of the desired medical service [24].
7. Addressing work pressures and problems such as long waiting times for both the primary care sector and service recipients by raising the existing competencies, skills and developing new creative solutions that fit future plans. [25].
8. Developing collaborative and inter professional leadership focused on system modernization capabilities.

9. Pregnant women and newborns should receive the right care, at the right times and receive care that prevents hospital-acquired infections [2].
10. Communication with women and their families must be effective and meet their needs [26].
11. Health care improving quality needs well-trained and motivated employees regularly available to provide care [27].
12. Every woman and newborn should have a complete, accurate, and standardized medical record.

Result

In order to improve the primary health care services, there must be an effective digital system to connect physician and other health care providers with the patient, enabling him to control his well-being in a safe and exclusive surroundings at any time and in an affordable price too. The digital health indicator (DHI) can measure the progress toward this effective system, it also enables us to be dynamic and anticipating in the process of keeping the patient in a good condition.

The patient fulfillment is a main parameter for judging the quality of service so the good communication between the medical staff and the patient, the discussion of the problem, the awareness of the case and treatment given by the physician and the pharmacist to the patient, the doctor examination time and the technical staff skills are essential in the quality improvement process [1].

Conclusions:

1. There are numerous obstacles to enhancing the quality of primary health care around the world, including:
 - A misunderstanding of what quality means.
 - Disconnection between national strategic approaches to quality and initiatives in primary health care at the local level.
 - At the primary health care level, attempts to measure indicators are separate from efforts to improve.
 - Quality-improvement efforts are not coordinated with overall health-care delivery.
 - Initiatives are frequently viewed as one-time projects.
 - Adopted evidence-based interventions are not correspondingly appropriate.
2. The purpose of primary health care is to coordinate people's care and their many health requirements in primary care settings, communities, and for populations.
3. It is critical to ensure the safety of primary health care; nevertheless, policymakers and implementers must systematically provide a title to all aspects of health system quality.
4. As health-care systems strive to provide the services that people want, a holistic and comprehensive approach is essential to ensure that the services provided are of high quality.
5. Every person striving to implement measurable improvements to make health services more effective, safe, and people-centered is engaged in quality improvement.

6. A primary care staff that is trained, supported, and motivated to offer high-quality treatment is critical to the quality of primary care services.
7. Primary health care worker training should be based on the most up-to-date information and organized by national agencies.
8. Having a well-formulated national quality policy and plan can help governments drive quality efforts.
9. Governments must ensure that health-care systems are equipped with an information and technology infrastructure capable of assessing the quality of primary care.
10. Primary health care is based on the value concept, and research on quality improvement is budgeted by primary health care system leadership.

Summary

Future of primary health care PHC aims to provide high quality and cost effective service for the patients. Developing in PHC by well planning and management will reduce expenses and wastage of medicines and healthcare equipment. Preventive care, chronic disease management with control of hospital referral should be in our priority [28]. It is necessary to improve health care by building financial viable and sustainable PHC to reach the goal of enhancing health care service with high quality cost effective for patients by supplying PHC with trained doctors, nurses and pharmacists are the key steps to our goals [29] .

Reference

[1] Bryan Jones, Esther Kwong and Will Warburton. Quality improvement made simple, third edition, April 2021.

<https://doi.org/10.37829/HF-2021-105>

[2] Zaidi, A.K., Huskins, W.C., Thaver, D., Shutta, Z.A., Abbas, 2., and Goldmann, D.A. (2005) Hospital-acquired neonatal infections in developing countries. *The Lancet* 365, 1175-1188

[3] Shomaker, T.S. (2011). Commentary: Preparing for health care reform: Ten recommendations for academic health centers, *Academic Medicine* 86, 555-558.

[4] Roland M, McDonald R and Sibbald B. Outpatient services and primary care: a scoping review of research into strategies for improving Outpatient effectiveness and efficiency. Southampton: Trials and Studies Coordinating Centre, 2006.

[5] Dixon-Woods, M., Bosk, C.L., Aveling, E.L., Goeschel, C.A., and Pronovost, P.J. (2011). Explaining Michigan: developing an ex post theory of a quality improvement program. *The Milbank quarterly* 89, 167-205.

[6] Hughes, R.G. (2011). Nurses at the “sharp end” of patient care.

[7] Erevelles, S., Fukawa, N., and Swayne, L. (2016). Big Data consumer analytics and the transformation of marketing. *Journal of business research* 69, 897-904.

[8] Perez, B., Knych, S.A., Weaver, S.J., Liberman, A., Abel, E.M., Oetjen, D., and Wan, T.T. (2014). Understanding the barriers to physician error reporting and disclosure: a systemic approach to a systemic problem. *Journal of patient safety* 10, 4551.

[9] Kruskal, J.B., Shanafelt, T., Eby, P., Meltzer, C.C., Rawson, J., Essex, L.N., Canon, C., West, D., and Bender, C. (2019). A road map to foster wellness and engagement in our workplace—a report of the 2018 summer intersociety meeting. *Journal of the American College of Radiology* 16, 869-877.

[10] Kilo, C.M. (1998). A framework for collaborative improvement: lessons from the Institute for Healthcare Improvement's Breakthrough Series. *Quality management in health care* 6, 1-14.

- [11] Cudney, E.A., and Guardiola, I. (2010). Importance of practical application in the teaching of Six Sigma concepts. ASQ Higher Education Brief 3.
- [12] Faulkner, B. (2013). Applying lean management principles to the creation of a postpartum hemorrhage care bundle. *Nursing for women's health* 17, 400-411.
- [13] Organization, W.H. Astana Declaration on Primary Health Care: From Alma-Ata towards Universal Health Coverage and the Sustainable Development Goals.[internet]. 2018 [acesso em 2018 ago 20].
- [14] Bitton, A., Ratcliffe, H.L., Veillard, J.H., Kress, D.H., Barkley, S., Kimball, M., Secci, F., Wong, E., Basu, L., and Taylor, C. (2017). Primary health care as a foundation for strengthening health systems in low-and middle-income countries. *Journal of general internal medicine* 32, 566-571.
- [15] Organization, W.H. (2018). Handbook for national quality policy and strategy: a practical approach for developing policy and strategy to improve quality of care.
- [16] Organization, W.H. (2016). Framework on integrated, people-centred health services. Geneva: World Health Organization, 2019.
- [17] Kruk, M.E., Gage, A.D., Arsenault, C., Jordan, K., Leslie, H.H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., and Doubova, S.V. (2018). Sistemas de salud de alta calidad en la era de los Objetivos de Desarrollo Sostenible: es hora de una revolución. *The Lancet Global Health* 6, 1196-1252.
- [18] National Academies of Sciences, E., and Medicine (2018). Crossing the global quality chasm: Improving health care worldwide.
- [19] Sheikh, A., Anderson, M., Albala, S., Casadei, B., Franklin, B.D., Richards, M., Taylor, D., Tibble, H., and Mossialos, E. (2021). Health information technology and digital innovation for national learning health and care systems. *The Lancet Digital Health*.
- [20] Mandl, K.D., and Kohane, I.S. (2008). Tectonic shifts in the health information economy. *The New England journal of medicine* 358, 1732.
- [21] Kates, N., Hutchison, B., O'Brien, P., Fraser, B., Wheeler, S., and Chapman, C. (2012). Framework for advancing improvement in primary care. *Healthcare papers* 12, 8-21.

- [22] Ameis, S.H., Lai, M.-C., Mulsant, B.H., and Szatmari, P. (2020). Coping, fostering resilience, and driving care innovation for autistic people and their families during the COVID-19 pandemic and beyond. *Molecular Autism* 11, 1-9.
- [23] Melnyk, B.M., Gallagher-Ford, L., Long, L.E., and Fineout-Overholt, E. (2014). The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: Proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews on Evidence-Based Nursing* 11, 5-15.
- [24] Daniel-Robinson, L., and Moore, J.E. (2019). Innovation and opportunities to address social determinants of health in Medicaid managed care. Institute for Medicaid Innovation, 1-24.
- [25] Gupta, D., and Denton, B. (2008). Appointment scheduling in health care: Challenges and opportunities. *IIE transactions* 40, 800-819.
- [26] Rasmussen, S.A., Jamieson, D.J., MacFarlane, K., Cragan, J.D., Williams, J., and Henderson, Z. (2009). Pandemic influenza and pregnant women: summary of a meeting of experts. *American Journal of Public Health* 99, S248-S254.
- [27] Dugani, S., Afari, H., Hirschhorn, L.R., Ratcliffe, H., Veillard, J., Martin, G., Lagomarsino, G., Basu, L., and Bitton, A. (2018). Prevalence and factors associated with burnout among frontline primary health care providers in low-and middle-income countries: a systematic review. *Gates open research* 2.
- [28] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5290757> / Future of primary health care
- [29] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5290757> /Conclusion