

The Sustainability Assessment of the Quality Improvement in Morocco Primary Health Care Facilities.

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ABSTRACT

Objectives: Our research aims to analyze the implementation and sustainability of a continuous quality improvement approach to understand the effects of the quality management practices in two Moroccan Primary Healthcare Facilities (PHCF).

Methods: The data collection made through two audits in two different editions for two PHCF'A' and PHCF'B'. The tool used is an evaluation and the score guide composed by six domains: customer satisfaction; accessibility/availability/continuity; rationalization of the resources; safety and reactivity; the leadership and continuous improvement; and community partnership/participation and following the deming wheel: plan, do, check, and adapt. Each question is scored on a scale the 0 To 4.

Results: On note that the global performance of PHCF 'A' was regressed (69% to 65%), and the global performance of the PHCE 'B' was increased (39% to 73%). The mean difference shows a significant difference between the two PHCE. (PHCF 'A' 4.4 and PHCF 'B' 4.1). The PHCF 'A' showed a decrease between the different areas while the PHCF 'B' showed an important increase between the different areas of quality.

Conclusions: The Quality Improvement Approaches (QIA) is an effective tool for the introduction of change in the health care facilities, however, institutions find QIA more challenging. For improving, the primary health care is necessarily to pass by the performance measure, search for appropriate evaluation tools however, the staffs, who, work in the primary health care centers suffer from an important lack for the tools to improve the health care quality.

Keywords: Primary health care; Quality contest; Implementation; Assessment; Sustainability

Introduction

In recent years there has been increasing global pressure on all levels of governments to improve performance [1]. As health care organizations continue to evolve worldwide in search of improved quality outcomes, patient safety, cost-effective services, and equitable access to health services, stakeholders continue to demand a higher level of accountability and sustainability of care [2]. Global calls for health care organizations to act in sustainable ways have been particularly pronounced and propagated from the highest levels, including the 'sustainable development goals' of the United Nations. The public sector is unlikely to adopt comprehensive sustainability performance measures while they remain voluntary and while there is no perceived need to be competitive in these areas [1]. The increased attention on performance evaluation

by public sector managers, consultants and academics reflects the increased pressure on Public Sector Organizations (PSOs) to improve performance to remain viable in today's competitive and global operating environment and to demonstrate this to external as well as internal stakeholders [1]. According to Rachel, health services can be examined in terms of three main structural components: Service performance characteristics determine its ability to deliver quality health actions, sustainability, and service activities and quality of care that the health service provides across the health promotion, treatment and rehabilitation spectrum [3]. The specific objectives are: to assess health service performance and quality of care, to assess its organization and function in terms of service sustainability, to measure its effect on patterns of health service utilization and health behavior, to investigate its impact on the health

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outcomes of residents, community viability and satisfaction [3].

The use of QIA has grown significantly in all the countries of the world in our time [4]. Measuring quality has become the cornerstone in improving the quality of care and a positive relationship is established between measuring and improving quality and achieving continuous quality The Moroccan Ministry improvement [4]. of Health (MOH) has introduced a quality improvement program in 1990s a set of quality steps have been tested i.e., quality circles, team problem solving, quality assurance and quality integrated management [5,6]. In 2007, the MOH has introduced a new approach called the Quality Contest (QC), inspired by the systemic quality improvement approach developed by the German Technical Cooperation Agency [5-7].

Sustainability; The term sustainability is used in different contexts to mean different things, locking in the progress that hospitals have made already and continually building upon it. Maintaining the health benefits of the Programme over a long period, continuation of the service or Programme activities within an organizational structure, and building the capacity of a recipient community.

Sustainability Assessment (SA) is wide and steadily growing, with different interpretations and implementations of this concept available so far [8]. SA is one of the most complex types of appraisal methodologies [9]. That entails multidisciplinary aspects and is conducted for supporting decision-making and policy development. Many tools, indicators system and frameworks have been proposed to characterize and assess sustainability at different level [10]. Concepts such as "Integrated Assessment" and "Sustainability Assessment" are introduced to offer new perspectives to impact assessment geared towards planning and decision-making on sustainable development [11]. There are more concrete and operational approaches that try to define and derive sustainability pillars to make the concept of sustainability operational [12,13]. The objective of Sustainability Assessment (SA) can vary considerably, meaning that the inclusion of various processes and mechanisms cannot always be taken into account with the same approaches [13]. This leads to the necessity to define clearly, what the scope of the assessment is and what questions need to be answered, implying that different instruments should be used depending on each case. The

pillars of sustainability considered can vary, which means that some studies can consider only environmental and economic aspects, others only the environmental ones and others environmental, economic and social together [12]. According to Gasparatos, Sustainability assessment has also the role of improving the decision aiding process by: Integrating sustainability spheres and considering their interdependencies. Including intra generational and intergenerational considerations, supporting constructive interaction among stakeholders, accounting for uncertainties and adopting a precautionary approach and contributing to monitoring and communication of results [14]. Furthermore, Ness and coworkers provide a categorization of sustainability assessment tools which includes [15]:

- Indicators which are non-integrated
- Product related assessments
- Integrated assessments

Integrated assessment are all the approaches that try to handle the information from individual indicators in a comprehensive manner, by considering interrelations and interdependencies among them, accounting for the different importance that they might have, and adopting different degrees of aggregation. Multi Criteria Decision Analysis (MCDA) is one of this and it has been indicated as the appropriate set of tools to perform assessments of sustainability, by considering different sustainability spheres, perspectives, stakeholders, values, uncertainties and intra and inter-generational considerations [8,16]. Performing a sustainability assessment requires integrating sustainability principles, thresholds and targets in the evaluation, as well as moving from a mere multidisciplinary to inter and trans-disciplinary approaches [9]. While some tools give partial answers for an overall assessment, they can be combined for a more complete sustainability assessment. Furthermore, they should refer to the eight principles of "The New Bellagio STAMP":

- · Guiding vision
- Essential considerations
- Adequate scope
- Framework and indicators
- Transparency
- Effective communications

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- Broad participation
- Continuity and capacity [17]

Tools to help sustain improvement include process control boards, performance boards, standard work, and improvement huddles. Process control and performance boards are methods to communicate improvement results to staff and leadership [18].

Methods

Objectives

The objectives of this paper aim to define sustainability and understand the importance of maintaining positive change, to analyze the sustainability of a continuous quality improvement approach, to understand the effects of the quality management practices in two Moroccan Primary Healthcare Facilities (PHCF), to assess the use of sustainability performance measures for supporting organizational performance improvement and describe lessons learned from examples of success across multiple sittings.

Frameworks

The frameworks improve quality and promote accountability [19]. A growing number of quality models and approaches have been developed over the past few decades. The Donabedian model is the famous model of quality measurement, it includes measuring health care structures, processes, and outcomes [20]. A conceptual framework for improving practice is needed to integrate the key features for successful program design, predictors of program implementation success, factors associated with diffusion and maintenance, and appropriate outcome measures [21]. According to, four stages for performance measurement were defined:

- conceptualization
- selection/development of measures (the QIs)
- data collection and processing
- reporting and results using [22]

Methods

We opted for the qualitative method shown in figure 1. The use of qualitative and quantitative information in sustainability assessments is fundamental as a wide variety of data typology has to be accounted for, and it was seen that all the methods result to be able to deal with this requirement. However, there are authors who question the explicit inclusion of qualitative or mixed information for the utility and outranking based methods, due to the need of manipulating the information at the input stage [13]. We used the theoretical framework of the quality contest and the other quality approaches, based on Shortell model [23,24].

Data collections

The data collection was made through audit in two different editions at 2013 and 2015, for two PHCF A and B. The Audit is made by binomial and it lasted for one day with a pre-established program. The tool used is the evaluation guide and the score guide prepared by the National



Figure 1: Conceptual framework of the study.

Quality Contest. This guide is composed of six dimensions the Customer satisfaction (D1); the Accessibility/Availability/Continuity (D2); the Rationalization of the resources (D3); the Safety and Reactivity (D4); the Leadership and Continuous improvement (D5); and the Community Partnership/participation (D6). Every dimension was subdivided into various aspects, every aspect was divided then into several questions, which were formulated according to the stages of management of the wheel of Deming: plan, execute, estimate, and adapt. Each question is scored on a scale the '0 To 4'.

The target population is the health workers who practice in the PHCF A and B, which participated in the implementation of a quality approach within their sanitary establishment. The criteria of inclusion are the participation in two editions of QC or other quality approaches and the voluntary service. PHCE A is an urban establishment and PHCE B is a rural establishment.

Results

Since the introduction the Quality Competition, the ministry of health organizes this competition, every two years. The PHCF A has participated in all editions however the PHCF B has participated only at two editions, while, our research has limited to two editions, editions 2013 and 2015 in table 1.

We note that the global performance of the PHCF A was regressed (69 to 65%) and the global performance of the PHCF B was increased (39% to 73%). The mean difference is significant between the PHCF A with regression of 4.4 Pts, and PHCF B with increase the 41 Pts. In different domain of quality, the PHCF A



Figure 2: Comparison the performance of the PHCF A and PHCF B in the first edition 2013.

| Table 1: Result of the participation of the PHCF in the editions of Quality Competition. | | | | | | |
|------------------------------------------------------------------------------------------|------|------|------|------|------|--|
| Editions | 2007 | 2008 | 2010 | 2013 | 2015 | |
| PHCF A | + | + | + | + | + | |
| PHCF B | - | - | - | + | + | |
| (+) PHCF Participate. (-) PHCF not Participate | | | | | | |

| (+) PHCF Participate, | (-) PHCF not Participate |
|-----------------------|--------------------------|
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| Table 2: The comparison results between two PHCE A and B in two QC editions 2013 and 2015. | | | | | | |
|--------------------------------------------------------------------------------------------|----------------|-----------------|-------------|----------------|----------------|-------------|
| | PHCE 'A' | | | PHCE 'B' | | |
| Domains | Edition '2013' | Edition ' 2015' | Ecart (Pts) | Edition '2013' | Edition '2015' | Ecart (Pts) |
| D1 | 61.8 | 60.2 | -1.6 | 23.1 | 79.2 | 56 |
| D2 | 77.7 | 75 | -2.7 | 23.1 | 70.2 | 47 |
| D3 | 64.2 | 61.3 | -2.9 | 11.6 | 74 | 62 |
| D4 | 63.7 | 61 | -2.7 | 25.9 | 72 | 46 |
| D5 | 63.5 | 65 | 1.5 | 40.9 | 71.5 | 31 |
| D6 | 77.3 | 65.7 | -12 | 40.9 | 72.1 | 31 |
| Global Score | 69.4 | 65 | -4.4 | 31.8 | 73.16 | 41 |

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Figure 3: Comparison the performance of the PHCF A and PHCF B in the second edition 2015.

showed a decrease, while the PHCF B showed an important increase.

The comparison of the PHCF A score between two editions 2013 and 2015 shows that in generally has decreased except for the domain leadership and continuous improvement D5, while the score of the PHCF B has importantly increased in all domains shown in table 2.

The figures 2 and 3 show the comparison between the PHCF's in the edition 2013 shows that the score of the PHCF A was very high than the score of the PHCF B, while in the edition 2015 the score of PHCF B were increased in the all domains while the score of the PHCF A have not changed.

Limitations

The evaluation of reliability and validity of the qualitative studies remains difficult to appreciate. The multiple of performance measure frames limit the comparability of the results [23].

Discussion

In a review study the Haute Autorité De Santé (HAS) confirmed that the majority of studies reviewed suggest that accreditation has a positive effect on the organization and on the management of hospitals, as well as on the implementation of good practice [25]. However, the impact of performance disclosure on changes appears rather mixed, with some studies showing positive results and others showing no effect.

Weinberg has conducted a study on system improvement sustainability in healthcare, concluded that sustainability relies on the improvement of components of the healthcare systems and the support of these components provide for each other. Ramirez et al. feel that sustainability may occurs with the balance focus on environmental, social, and economics development in healthcare institutes. Noor Hidayah Jamaludin et al. in their study stress that a sustainable healthcare institute depicts a system that focuses on the development of various approaches such as management of human health and environment, economic competitiveness, and social development.

In the United Kingdom, recent evidence suggests a clear association between medical engagement and indicators of improved performance [26]. Based on the definition of medical engagement as the active and positive contribution of doctors within their normal working roles to maintaining and enhancing the performance of the organization which itself recognizes this commitment in supporting and encouraging high quality care [26]. These results indicate that there is a clear and consistent link between medical engagement and performance, confirming that if doctors become more involved in-service changes and innovation, productivity and quality outcomes will improve. It is difficult to see how radical changes in service delivery could be implemented by disengaged, disaffected, and uncooperative medical staff.

According to Federico Lega, a contingent relationship exists between performance and organizational culture and management styles [27]. However, there are still many challenges regarding indices: subjectivity and uncertainty, lack of internal information for decision makers. In addition, existing indices are criticized for being too general [28]. More specifically, it has been stated that most of the indices fail to meet scientific requirements to normalization, weighting, and aggregation [29,30].

The CQIA had developed a better understanding

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| Table 3: Comparison the strong points and the weak points in two PHCF A and PHCF B. | | | | |
|-------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------|--|--|
| | PHCE 'A' | PHCE 'B' | | |
| The strong points | Revalorization of the principles of quality | Staff satisfaction | | |
| | Better work climate | Improvement of the workspace | | |
| | Better organization | Continuous improvement of equipment | | |
| | Teamwork | Openness to the outside world (partners) | | |
| | - | Full membership of the staff | | |
| The weak points | Insufficient motivation | Lack of awareness of judgment | | |
| | Lack of medical and paramedical staff | Lack of continuity for improvement | | |
| | Insufficient commitment from all partners | Absence of support with higher levels | | |
| | Insufficient resources | - | | |

of the organization by the PHC staff and contributed to a better organizational climate. According to Paccioni et al the staff learn more about the organization and internalize its values [31]. The result of CQIA reinforced cohesiveness in the self-assessment teams and contributed to improved communication in the institutions [32]. Pomey et al. confirm that the connection between professional cultural control and quality management practices implies a style of leadership that can influence its managers' behaviors and attitude" [32,33]. The Selfassessment must be part of a continuous process rather than episodic [31].

The audit and feedback had a 'Lack of awareness of judgment' for the PHCF A staff, according to Flottop et al. the result of the audit and feedback is weak to moderate, a better feedback is a fundamental element for improving practices [34-36]. For promoting change, the feedback should respect some conditions the validity of the information communicated, the credibility of those identifying problems and giving feedback and the manner of presenting the feedback [35].

The finally stage of the QC is the dissemination of the results which may have also contributed to improve quality for PHCF. The publication of performance's results is increasingly a part of initiatives to improve quality [37,38]. The aim of winning a prize may represent an incentive for professionals to improve health care quality [39]. The sustainability of performance is attribute to recognize and value efforts [40]. Similarly, comparing performances among hospitals appeared to be associated with an improvement in care procedures [41]. The results arising from these interviews with key staff indicate that multidisciplinary teams, visionary leadership, strong community engagement combined with service partnerships are important factors in the building of PHC service that substantially

contribute to enhanced staff satisfaction and service sustainability [42]. According to Waas et al., it must abide by four principles:

- Normativity
- Equity
- Integration
- Dynamic principle [43]

The CQI literature suggests the following success factors: A dedicated team for implementation. Routine performance measurement and data sharing, protocols and procedures that are adaptable at the local level. Implementation training and support, including providing forums for sharing best practices [22]. Four variables were independently associated with perceived sustainability: Low-cost or no-cost, interventions that require few or no resources from the host organization, interventions that underwent modification or customization during implementation. The quality of the intervention, and the presence of a program champion who strongly advocated the continuation of the intervention [44]. The analysis of this experience allowed us to draw strengths and weaknesses in table 3.

Conclusion

In order to institute an organizational culture of sustainability in health care organizations, managers need to look at all dimensions of sustainability, as well as the competencies and change management strategies required to do so. The CQIA is an important tool to introduce change in health care facilities, and it is necessarily to adopt CQIA the appropriate evaluation tools and to develop a performance measure, however institutions find CQIA more challenging. The Sustainability Assessment of the Quality Improvement in Morocco Primary Health Care Facilities.

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