



Maturity Assessment for Integrated Care during Health Transformation Using SCIROCCO Tool

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Significance

The significance of this article lies in its evaluation of the maturity level of integrated healthcare in Jazan, Saudi Arabia using the SCIROCCO tool. It provides valuable insights into the current state of integrated care in the region, highlighting areas that require improvement. The findings suggest a need for clearer vision, strategic planning, and political consensus to drive the transformation of healthcare services. Additionally, the study underscores the importance of addressing factors such as governance, funding, innovation, and change management in the context of healthcare system evolution. This research is relevant not only for Jazan but also for healthcare policymakers and stakeholders globally, as it contributes to the understanding of the challenges and opportunities in the implementation of integrated care models.

Abstract:

Background:

Integrated health care has the ability to provide adequate care system in different modalities of medical care. Saudi Arabia is going through major transformation in its health care services in order to provide sufficient resources. A 12-dimension SCIROCCO online self-assessment tool, was extracted from the B3-MM, was used for the scaling up of health intervention and for assessing the maturity level of integrated care within different regions. SCIROCCO tool assess a step wise scaling up technique to evaluate how to scale up integrated care during health transformation. By having knowledge of the factors which make this strategy difficult to implement this study evaluates to what extent SCIROCCO technique was applied.

Methods:

The SCIROCCO tool was used to assess the maturity of systems of Jazan, Saudi Arabia for integrated care system and for the evaluation of factors affecting scaling up. Data was collected from Stakeholders from multiple disciplines including decision-maker, healthcare professional, IT specialist by self-assessment method. The outcomes of the self-assessment process were visually captured in the form of spider diagrams.

Results:

All three fundamental steps of the scaling up procedure were executed with satisfactory devotion. Integrated health transformation in Jazan yielded 18 points out of 60 on spider diagram according to

SCIROCCO tool. Majority of the dimensions have no more than 3 score. Digital Health care transformation in Jazan needs to be improved in most of the aspects.

Conclusion:

This study assesses maturity level of integrated care in Jazan and concludes that An ICT infrastructure to support integrated care has been agreed together with a recommended set of technical standards but there are Still local variations or some systems in place are not yet standardized. Learning about integrated care and change management was in place but not widely implemented.

Introduction:

Due to the population explosion, health care system is burdened and need transformation. In many countries, health care system is insufficient, low in quality and inadequate in services. In order to accomplish these deficiencies, evolution of health care toward integrated care has ability to provide adequate and effective care system (1). Kodner provided the definition of integrated care as 'A multi-level, multi model demand driven and patient centered strategy designed to address complex and costly health needs by achieving better coordination of services across the entire care continuum. Not an end in itself, integrated care is a mean of optimizing system performance and attaining quality patient outcome (2). Saudi Arabia is undergoing major transformation in its health care system and first phase of this transformation began at the start of 2015. The goals of which is to provide effective, accessible, adequate, patient centered and timely care by improving services, quality and organization (3). Insight is required for evaluation of factors onto which success of integrated care depends in order to attain a successful transition (4). A diverse literature is present on approaches for scaling up health intervention in integrated care and most of them explained scaling for developing countries (1). A number of models has been designed to assess the maturity level of integrated care. Maturity model consists of seven dimensions that is believed to be as requirement for the provision of integrated care.

A 12-dimension SCIROCCO online self-assessment tool was extracted from the B3-MM which reflect the maturity of the health and social care system. All the dimensions include a 6-point rating scale. Availability of SCIROCCO tool in different languages like English, Spanish, Italian, or Czech make it easy for regional accessibility. A health care system can estimate its maturity level for integrated intervention by taking into account these 12 dimensions and can rate the progress in integrated intervention. After the evaluation of these dimensions, radar diagram is drawn for maturity level of specific region. The

diagram has a potential to portray the stability, delicacy and refinements in health care system (5). It identifies strong and weak areas that needs improvements. The tool uses the consensus or the stakeholder, identifies and generates good practices required for scaling up of integrated care (6). SCIROCCO tool shows its suitability and exchanging knowledge from advanced region to another that needed development for the rapid growth of integrated care of whole system. The 12 dimensions of B3 maturity model, its indicators and its assessment scales were tested and scored and acceptable content validity. It also had a well scored internal consistency (5). The SCIROCCO tool is used to assess the maturity of countries system which displays their readiness to adopt integrated care. The score of the system in Germany was the highest among the 14 countries followed by Denmark, Spain, United Kingdom, Sweden, Italy, Greece and Iceland. On the other hand, Czech Republic, Netherlands, Estonia, Bulgaria, and Poland were less mature than the previously mentioned countries (1)(7).

The combination of the dimensions of model represents the maturity status of the system. These domains interact together to help facilitate the adoption of integrated care. Standardization and simplification of the system infrastructure is one the model domain for adopting integrated care. Availability of continuous funding is essential during the journey of the whole system transition from planning to operating. Alternative funding is also needed from national or public private collaborations. Population Approach is a part of the integrated health system which helps population in managing their health and receiving cost-effective health services. Most importantly, it predicts the future risks and health demands of the population which helps in making decisions beforehand in order to maintain a healthy population. Fully integrated system should cover vertical or horizontal, macro, meso or micro level. Capacity building is also required for the improvement of the system quality, cost and access (8).

According to the Alma Ata declaration, Saudi Arabia has recognized the evolution of integrated health care as its most important master plan. The Ministry of Health (MOH) runs 1787 primary care centers in the country, each serving about 8727 people. Like different nations, Saudi Arabia is confronting difficulties because of developing interest on wellbeing administrations, increasing expenses, and public pressing factor for better administrations (9).

The purpose of this study is to assess the maturity indicators and assessment scale for integrated care during health transformation. Successful Innovation Management could grantee the improvement of the system. In fact, adopting and managing innovations in a best effective way possible start with recognize the suggested solutions whether it was provided from the inside or outside of the system. Open innovation is a

great method to meet the need of citizens, so it should be encouraged and rewarded.

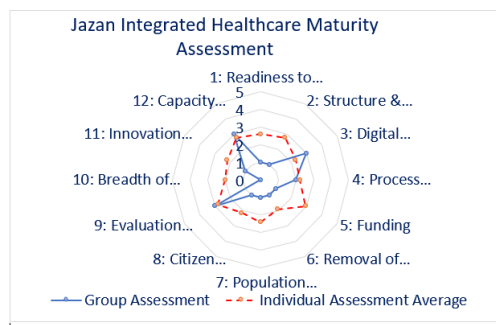
Methodology:

The SCIROCCO tool was used to assess the integrated care during healthcare transformation in Jazan, Saudi Arabia using qualitative study design. Stakeholders from multiple disciplines, sectors and different position in organizations were recruited. Consent was taken beforehand from the participants for ethical approval. Participants were Network engineer, Consultant Pharmacist, Nursing Specialist, position: Deputy PMO Manager ATP – Jizan, Nursing director, IT, Medical System Project Manager, Medical Specialist, Psychiatrist, it, Pharmacist, Assistant, Laboratory Specialist, E-Health, Engineer computer, Health management specialist and Director of Electronic Health, Iradah Hospital for Mental Health. To conduct maturity assessment of healthcare system by using SCIROCCO tool consisting of statements concerning 12 dimensions regarding integrated care including Readiness to change, Structure and Governance, Digital Infrastructure, Process Coordination, Finance and Funding, Removal of inhibitors, Population Approach, Citizen Empowerment, Evaluation methods, Breadth of Ambition, Innovation Management and Capacity Building. Various forms of supportive documentation and online tutorials were provided to stakeholders in order to support them during the self-assessment process. They were given time period of 2 weeks for this process. Each person was asked to provide rating 0-5 regarding the maturity in each of 12 dimensions of integrated care and provide justifications for the rating by describing why you think this is the right level of maturity. The stakeholders shared their assessments with local organizers. A workshop was organized by local Organizers to discuss the outcomes of assessment and reach a consensus about maturity of healthcare system and plan future programs for the improvement of healthcare system. The outcomes of the self-assessment process were visually captured in the form of spider diagrams. Responses of all individuals were combined in the form of average individual assessment score in spider diagram with red curve, while results of group assessment were represented on spider diagram with blue curve. The diagrams provide the quick detection of strengths and weaknesses in the integrated care. The diagrams provide the basis for the discussion / negotiation with other stakeholders to reach the consensus on the current state of art. Responses produced by individuals were used by organizers to produce composite spider diagram. Areas were looked for the availability of consensus. Face to Face consensus building workshop was arranged in order to review the outcomes of assessment, comment on maturity of healthcare system and set priority areas for future improvements.

Results:

Assessment of digital health transformation in Jazan by using Online SCIROCCO tool yielded 18 points out

of 60 on spider diagram. Responses of all individuals were combined in the form of average individual assessment score in spider diagram with red curve, while results of group assessment were represented on spider diagram with blue curve. Responses of group and individual assessment were different except for three dimensions that were almost similar i.e., Process Coordination, Innovation & Management and Capacity Building. Digital Health care transformation in Jazan for integrated care is still low in most of dimensions as revealed by Maturity Assessment tool because majority of dimensions were rated no more than 3. Individual assessment yielded maximum scores of less than 3 in three dimensions including Funding, Evaluation Methods and Capacity Building. Group Assessment scores were higher for Digital Infrastructure, Evaluation Methods and Innovation Management i.e., 3. It had a score of 0 for breadth of ambition, 2 for Process Coordination and rest of dimensions were rated as 1 on SCIROCCO tool.

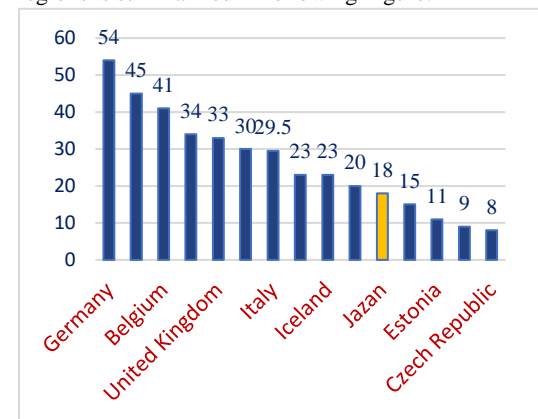


Discussion:

SCIROCCO procedure is an empowering approach offering different regions a custom-made however adaptable way to encourage progress in integrated care. The multimodel plan of this investigation has yielded information about what components are engaged with executing scaling up technique concerning integrated care activities (10). The spider diagram generated from Maturity assessment score of integrated healthcare in Jazan depicts that integrated healthcare transformation is in its early stages with regard to most of dimensions of healthcare. The spider diagram of Jazan, Saudi Arabia is heterogeneous for 5 dimensions out of 12 showing that there are discrepancies in stakeholders' perceptions across Process Coordination, Digital Infrastructure, Evaluation Methods, Breadth of Ambition and Innovation & Management dimensions of SCIROCCO tool. Health care system at Jazan lack clarified policies and plans for implementation of integrated health care. Absence of political consensus about integrated health care and inability to ward off identified inhibitors of integrated healthcare system are the main barriers towards healthcare transformation in Jazan. This idea was clearly illustrated in Maturity Assessment model where majority of dimensions were rated as 1 like several

other countries i.e., Estonia (11), Greece (12), Netherland (13), Bulgaria (14), Poland (15) and Olomouc (16) where integrated healthcare transformation is still at the outset. This is in contrast to Denmark (17), Germany (18), Italy (19) and Belgium (20) where Maturity assessment scores for most of dimensions of integrated healthcare was 4 or 5. Lombardy region in Italy has achieved an excellent integrate care in healthcare system due to presence of political consensus around integrated care programmes in the region as delineated by Maturity Assessment diagram of Italy where the Structure and Governance assessment dimension was rated as 5 (19). Thus, political consensus in the region also provides the plan of action for implementation of integrated care across other dimensions of Maturity Assessment as well (19).

Broadly our study reveals that progress of implementation of integrated healthcare in Jazan is checked by deficit of political will to design a set of absolute national strategies for integrated care. Moreover, there is no political consensus toward implementation of integrated care as Maturity Model Assessment particularly in the Readiness to Change and Removal of Inhibitors assessment dimensions were rated as .According to perspective of healthcare, the healthcare system of Jazan is in early stages of integration with strengthened Capacity Building, Evaluation, e-health Services and Process Coordination but there are still areas of improvement such as Breadth of Ambition, Ready to change, Structure and Governance , Funding, Removal of Inhibitors , Population Approach, Innovation and Management evaluation, Innovation management , Citizen Empowerment and Funding. Comparative analysis of Maturity assessment scores of different regions is summarized in following Figure.



Conclusion:

The SCIROCCO tool is used to assess the maturity level of different countries in term of their effectiveness in integrated care. Our study concludes that there is a need for change but the vision is not clear and lacks strategic plan for change. Different countries change to Jazan in most of the dimensions. The

structural needs of healthcare system should be recognized and required changes in governance should be made. E-Health services to support integrated care were piloted but there it lacks region wide coverage. An ICT infrastructure to support integrated care has been agreed together with a recommended set of technical standards – there may still be local variations or some systems in place are not yet standardized. Funding is available but mainly for the pilot projects and testing. There is no systematic approach to management of inhibitors. Population-wide risk stratification was taken into consideration but is still not started. Coordination activities arise but not as a result of planning or the implementation of a strategy. Innovation was encouraged but there is no overall plan yet. Learning about integrated care and change management was in place but not widely implemented.

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