Evaluating the impact of applying infection control standards for central board for accreditation of healthcare institutions (CBAHI) program in dental clinics in primary healthcare centers, Makkah, Saudi Arabia


Abstract
The aim of this study was to evaluate the implementation of infection control standards for CBAHI program in dental clinics in primary health care centers in holy capital and commitment of health practitioners (dentists and technicians) to apply their knowledge to the dental clinics, and knowledge the trends of customers satisfaction about health services which is provided inside clinics, and the extent and full commitment to the proper use of personal protective equipment (uniform, gloves, protective face), and how to sterilize materials used inside clinics in safety and securely way to prevent the spread of infection by communicable disease among customers in the clinics. The study identified sixteen of the health centers Al-zahir PHC, Alhaj st PHC, Al-adel PHC, Aldeafah PHC, Al-tanim PHC, Alrayan PHC, Ain shamas PHC, Almugrah PHC, Jabl almoor PHC, Abo erwa PHC, Hadh PHC, Alhumamah PHC, Alotaibeah PHC, Almaabah PHC Jarwal PHC, Aljunom PHC, 16 PHCs been selected randomly among 57PHCs (inside and outside Makkah holy city). The current study includes over 320 reviewers, which represent a random sample of members of the community in the holy capital city. A questionnaire was distributed by 16 technicians and dental doctors in 16 primary health centers at a rate (20 reviewers between men and women). A questionnaire consists of three parts, three questions for reviewers, three questions for dental doctors and five questions for technicians.

Keywords: Satisfaction, healthcare, reviewers, Makkah

1. Introduction
The external evaluation and management of hospital quality are two intimately related aspects of the same phenomenon: the need to improve the quality of health services and provide confidence of this quality to all stakeholders (Guerra Bretaña1 and Marín Álvarez, 2017) [1]. Health-care accreditation is often adopted, in widely differing settings, as a mechanism for service improvement or as a vehicle for health reform. There is limited evidence of the impact of accreditation (Charles et al, 2013) [2].

In a study conducted in Saudi Arabia on the impact of the status of hospital accreditation on patient satisfaction, the authors concluded that Patients at the accredited hospital were happier with the quality of health care provided for them at the clinical care facilities, clinical ultrasound professionals and overall performance than Patients at the non-accredited hospital (Mona et al, 2013) [3]. Quality Assurance programs in healthcare were introduced and implemented in Saudi Arabia before any other Arab country (Almasahi, 2013) [4]. Generally, accreditation has developed for hospitals; but with time, it was considered by primary care’s institutions, laboratories services, and other healthcare sectors (Mousa et al, 2015) [5].
Saudi Arabia and its leadership is always good and never for the benefit of the homeland and the citizen, and the quality of health services and patient safety is a priority, and though has been the establishment of the Central Board for Accreditation of Healthcare Institutions by ministerial decree 144187/11 on 1/9/1426. (www.mrhb.gov.sa.com)

The quality of health services and patient safety has become the main concern in most countries of the world, and accreditation was used to improve the quality of health care and to increase the degree of safety.

The Central Board for Accreditation of Healthcare Institutions seek to build a solid foundation that cannot be competed at the local and the international level and this requires facilities in several areas and at different stages in the implementation of their strategic plan.

The accreditation of healthcare institutions in its early stages requires the preparation and development of healthcare standards, including all steps and stages of the administrative and technical work, which must be prepared and developed and tested always by international and local experts, and without stopping.

And requires the preparation and development of manpower (SIT) to train and guide the health facilities of all kinds, to make health standards as part of the routine daily work; and a great part of this stage has been completed, but what is coming is of no less importance than what has been accomplished in the past.

It also requires the preparation and development of highly qualified specialists (Surveyors), their basic task is to ensure that health facilities that have been trained is applying the health standards at all levels of the facility and make it part of the routine daily work.

It also requires the preparation and development of a coherent information system in all parts of the Kingdom that ensures the confidentiality, and not loosing of the information and that information are easily accessed and maintained. It also requires spreading quality culture through conferences, symposia and workshops, and announcements and advertisements on all professional and non-professional levels.

And requires follow-up to the performance of health facilities after their accreditation and to ensure the continuity of quality in health services provided throughout the period of accreditation, the fact that requires human and material effort for the continuity of this enormous work. (http://www.cbahi.org).

2. Materials and Methods

The study design was a descriptive study, where considered descriptive study is very important in the humanitarian, social and characterized this kind of study that relies on analysis and reason and objectivity is associated with reality, where cares by individuals and agencies, institutions and governments and countries and described the past. (Alserahy, et al, 2008) [6].

About 16 health centers were included in the study. Using simple random sample technique, a total of 320 reviewers were chosen of each health center for the study. The relevant data were collected by a questionnaire.

The questionnaire is a convenient tool for information, data and facts connected by a specific questionnaire were closed as required. It Consists of three parts, three questions for reviewers (closed), two questions for dental doctors (closed) and one open-ended questions, and five questions for thennics closed. (obidat et al. 2007) [7]. The analysis of the results was used Excel program set Office 2007 histogram graphics, and results have been presented in the study by using: Frequency tables, Percentages and Graphs.

3. Result and Discussion

As for the special part of the questionnaire for the reviewers: The first question was the level of satisfaction with the dental clinic reviewers in Al-Megrah, Ain Shams, where it is 100%, while the level of satisfaction in the health centers for the softening, Al Rayyan, Jumum, Justice, Jarwal, Zaher, Satisfaction with them was 5%, while the level of satisfaction for the reviewers of Jabal Al Noor Health Center was 94%, dissatisfaction was 6%, 86% for Al Otaibi Health Center and dissatisfaction 14%, 85% Satisfaction among reviewers and dissatisfaction at 25%, and finally 73.6% for the reviewers of the Abu Erwa health center and dissatisfaction 26% (figure 1).

For the second question The percentage of health care providers are dealing with reviewers in Jerwal, Megrah, Tanim and Ein Shams was 100% by the health service providers at the dental clinic, 95.4% by the Obeibi Health Center reviewers, and 4.5%, and 95% Of the health centers in Hadda, Al Zaher, Hajj Street, Al Rayyan and Jumum, and 5% The opposite, Abu Erwa health center with 94.7% and vice versa 5.2%, followed by Jabal Al Noour Health Center by 94.4% and 5% The opposite, 90% for allumeema Health Center, and 10% opposite, for aldeyafah Health Center 88.8%, and 11% opposite, and finally 80% for almabdah phc, and 20% opposite (table 1).

As for the last question about the level of cleanliness, care and attention to references in the dental clinic in the health center, we find that the reviewers have been given an excellent status, and was ranked first health center nominated 80% and some of them voted good by 20%, while satisfactory and unsatisfactory by 0%, and 71.4% for Ain Shams and Zaher, and 14.4% respectively for satisfactory and unsatisfactory rates of 9.5%, followed by 70% for Hajj Street health center, 5% for satisfactory and unsatisfactory status with 0%, and Aldeyafa phc for 66%, 6%, good 27.7%, unsatisfactory 5.5%, and 60% for both AlJumum, al tanim and al adel, and good by35% for aladel and jumum, and 5% for both, and 0% unsatisfactory, And excellent for altanim at 60% and good by 4% and satisfied and unsatisfied by 0%, and both Al-Rayan, Jabal Al Noor and Al-hameema are excellent at 55%, 30% good for Alhameema Center and 25% for Al Rayyan Center. 16.6% for Jabal Al Noor,and satisfied by 15% for Al Rayyan and Al Himaema, 0% for non-satisfactory and 11% for jabal alnour Health Center, 5% for Al Rayyan Health Center, 54% for Otaibi(reviewers are given excellent), and good by 36.6%, satisfactory at 10.5%, and unsatisfactory at 0%, and jarwal by 52.3% (excellent), and good by 42.8%, satisfactory 0%, unsatisfactory at 4.7%, and finally almabdah phc 45% excellent, 30% good, 20% satisfactory, and 5% unsatisfactory.

For the second part of the questionnaire, we find that most of the answers to the first question regarding the availability of all infection control materials such as soap, other sterilizers, and other materials such as gloves and protective masks were yes. The second question is whether sterilization device in a healthy and normal manner without
problems, and their answers were also yes. When asked if you have any obstacles or problems that prevent him from performing his work in the clinic and affect his work correctly and correctly, 66.6% have no problems or obstacles, 33.3% of them stated that their lack of coverage instead of scarcity, as opposed to scarcity and housing allowance, such as other doctors and nursing staff, is a handicap or problem that affects their mental state, as they are exposed to many diseases and epidemics that may be exposed to them during their work. Teeth for women and men.

For the third part of the questionnaire, which is for the technicians and technicians of the dental clinic, is there all the medical supplies, especially the materials used to remove the spilled liquids on the ground and how to deal with them? Everyone answered yes, but when they are about whether they face any obstacles or difficulties in work, In the dental clinic in a healthy manner, about 62% of them that the failure of the inclusion of technicians or dental technicians not to pay an infection allowance affects psychologically on their work or work in the dental clinic because their colleagues categories of nursing or laboratory, They pointed out to them that they are more susceptible to infection when the fluid is discharged or the results of the reviewers and reviews of the clinic because it is possible to be contagious and harmful to them, while 12.5% of professionals complain that there are not enough professionals in the clinic, especially the time of leave or emergency, and the rest are no impediments or difficulties in their work. As to the question of receiving any training courses in the field of infection control and the number of them all answered yes, but when asked about the cleaning of the clinic before and after the completion of the work were also answered yes, and when asked whether the infection control standards are implemented in the clinic in a way for correct and correct answer yes.

![Fig 1: Satisfaction among reviewers](image)

**Table 1:** The percentage of health care providers are dealing with reviewers

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<tr>
<th>BHC</th>
<th>Yes %</th>
<th>No %</th>
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<td>Otibiah</td>
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<td>Aldeyafah</td>
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<td>Alhumeeh</td>
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<td>Almungrah</td>
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<td>Aboerwa</td>
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<tr>
<td>Jarwal</td>
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<tr>
<td>Almabah</td>
<td>80</td>
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3. Officials at the Saudi Ministry of Health should reconsider the dismissal of infection allowances in the categories of art due to them.

4. Intensifying training courses in various health specialties and making them free of charge and in suitable places and times for the different categories of art.

4. **Conclusions**

Sixteen primary health centers have been selected randomly by researchers, the CBAHI program should apply in all over the kingdom regions to present excellent services for reviewers.

Al-zahir PHC, Alhaj st PHC, Al-adel PHC, Aldeyafah PHC, Al-tanim PHC, Alrayan PHC, Ain shamas PHC, Almungrah PHC, Jabal alnoor PHC, Abo erwa PHC, Hadh PHC, Alhumamah PHC, Alotaielah PHC, Almabah PHC Jarwal PHC, Aljumom PHC.

Applying quality standards will help to develop health services, which provided to males and females in all phcs in the holy capital.

5. **Acknowledgements**

Praise be to God, prayer and peace be upon our prophet Muhammad and his family and companions, to begin with.
We would love to offer this modest effort to all the faithful who wish to develop related health services to citizens and residents in the Holy Capital, ask God that we have been successful in the output of this business as desired Amen.

6. Reference