



Standpoint of Medical Staff about Accreditation in a Pre- accreditation Period in Hospitals in Republic of Macedonia

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Abstract

Accreditation as a worldwide accepted process, has its core functions to promote continuous improvements applying standards and supplying feedback from this undertaking. There are data indicating that the standpoint of healthcare professional toward accreditation is generally supportive. R. Macedonia is in a period just before introducing of accreditation in health care system and in this period it is essential that perceptions about accreditation be considered so that this process will truly be a promotor towards quality. This study aims at identifying determinants and their impact upon an accreditation process to be, from the perspective of the medical staff in hospitals in R. Macedonia.

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A prospective cross-sectional study was conducted, performed in healthcare organizations in R. Makedonia. The study was conducted in 17 healthcare organizations and, 402 healthcare givers took part in the survey. The tool for the study was a questionnaire consisting of 4 questions of a closed type.

In our study biggest percent of respondents (59.2% agree , 20.9% strongly agree), according to their answers , that accreditation is an effective process for improving quality of services provided to patients/clients. Also, healthcare staff according to their answers , have e positive attitude towards preventing potential organizational problems by complying with accreditation standards. The biggest percent of respondents (59.0 % , 11.4 %) agree, strongly agree, that the accreditation process is a meaningful process to improve the daily work of healthcare professionals. Majority of the respondents, judging by their answers (86,1%), agree, that if their organization was to undertake a process of accreditation ,they would approve it and take an active part in it.

We can conclude that the accreditation process will be embraced by the medical staff as a process that can improve many aspects of delivering quality of services to the patients as well as better organizing the day to day work of the healthcare organization.

Keywords: accreditation in healthcare; perceptions of medical staff; problem solving; routines; hospitals; organizational problems.

1. Introduction

Accreditation and certification are widely used methods to assess and improve healthcare services [1]. Accreditation as a worldwide accepted process, has its core functions to promote continuous improvements, applying standards and supplying feedback from this undertaking. Accreditation programmes can have positive effects on quality and safety of clinical care and organizational performance [2].

The positive impact of accreditation is associated with several areas of quality and performance including quality planning, customer satisfaction and staff involvement [3]. The accreditation process assesses many aspects of a facility's daily operations that impact quality of care [4]. Evaluating, certifying and monitoring the quality of the provision of healthcare services using agreed standards is an excellent method of improving, among other issue, problem solving and critical self-examination [5].

There are data indicating that the standpoint of healthcare professionals concerning accreditation is generally supportive [6]. An Australian study examined the usefulness of accreditation in assisting movement toward best practices, and found that a large majority of physicians agreed that the accreditation process had been of significant benefit to their organization [7].

Low and middle- income countries face many challenges compared with higher income countries in providing quality health care to their citizens, to improve the safety and quality of care [8]. These countries require many preconditions for sustaining quality ; political environments, structures and services in support of HealthCare provision; mechanisms and infrastructure for quality and patient safety initiatives; and policies and procedures by which to embrace improvement strategies [8]. One approach to appreciate the challenge of adopting these

requirements is a healthcare accreditation programme.

The process of accreditation is expected to be introduced in hospitals in R. Macedonia. The Government of Macedonia chose to adopt its own hospital accreditation system, establishing an agency for accreditation [9] which prepared national accreditation standards accepted by the Government of the R. Macedonia. The healthcare system in Macedonia consists of primary, secondary and tertiary level of services in the public as well as in the private sector. The process of accreditation is expected to be introduced in hospitals providing tertiary health care services, gradually to encompass all of the health system, in both the public and the private sector.

Studies have been done evaluating perceptions of the medical staff concerning improvement in quality of care as a result of hospital accreditation, but there is a gap in literature concerning attitudes about accreditation in a pre-accreditation period in hospitals.

R. Macedonia is in a period just before introducing of accreditation in health care system and in this period it is essential that perceptions of the healthcare providers about accreditation are to be taken into account so that this process will truly be a promotor towards quality.

This study aims at identifying determinants and their impact upon an accreditation process to be, from the perspective of the medical staff in hospitals in R. Macedonia. This research on attitudes of medical staff about accreditation, before introducing national accreditation of hospitals by law, is among the first of its kind in the Republic Macedonia. In the academic literature there are very few published studies interconnecting accreditation, and perceptions of medical professionals covering the period before introduction of accreditation.

2. Method and Design of the study

We conducted a prospective cross-sectional study covering the territory of R. Macedonia. The research was conducted from September – December 2014 in 17 health care organizations. According to ownership, 2 were private hospitals and 15 public healthcare institutions (7 hospitals, 10 clinics and institutes. All healthcare organization had stationay wards for inpatients .

2.1 Determination of sample

The participating health care organizations were obtained by convenience sample. A total number of 700 questionnaires were divided, and 402 healthcare workers filled in the questionnaire (the number of needed respondents was calculated to be between 400-500 using the formula $C = 1 / \sqrt{400 \times 100}$).

2.2 Criteria for inclusion and exclusion

Criteria for inclusion of the health organizations were : organizations that have not yet started or completed the process of accreditation and are either public or private institutions providing tertiary care to patients. Tertiary care meaning that the organization has a determined number of beds for in-patients. Inclusion Criteria for staff

were that they be healthcare providers i.e. doctors, nurses, technicians. Criteria for exclusion were: organizations that launched or completed the process of hospital accreditation.

2.3 The survey instrument

For the purpose of this research a special questionnaire was designed, consisted of close-ended questions.. This research is only part of a larger questionnaire, designed to meet the objectives of the survey of the doctoral dissertation of the author of this paper. This section consisted of a set of 4 closed questions. The data were obtained through completion of the questionnaire by the medical staff, after receiving instructions from the author of this paper. After the completion of the activities on the field and check for quality of the completed questionnaires, they were coded and fully processed.

2.4 Statistical tools

Statistical analysis of data was carried out in the statistical program SPSS for windows 17,0. Testing differences in responses between the analyzed groups was performed with Pearson Chi-square test and difference test. The value of $p < 0,05$ was considered statistical significant, and $p < 0,01$ for statistically highly significant.

2.5 Ethical aspects

The survey was conducted on the basis of confidentiality, anonymity and voluntary participation. All participants were given a written explanation for the reasons for the investigation and for the steps taken to preserve their anonymity. Written consent was not required to preserve the anonymity of the participants. None of the reports prepared on the basis of data obtained from the study does not contain information to identify any of the participants.

3. Results

3.1 Demographic data

The number of participants in the study was 402 healthcare professionals from 17 healthcare organizations, two privately owned, and the remaining 15 public health institutions delivering tertiary care (hospitals, clinics, institutes).

The gender structure of respondents presented with 122 (30.3%) male and 273 (67.9%) female respondents. The age group 31 to 45 years was dominant with 183 (45.5%) respondents.

In terms of professional function performed in the organization, the majority of respondents - 44.3% have a university degree, doctor, followed by respondents with high school diploma (nurses, laboratory technicians) - 30.1% while 12.7% physicians performing managerial functions.

The analysis of the answers received from respondents (table no.1) indicated that the biggest percent of respondents (59.2% agree , 20.9% strongly agree), according to their answers , agree that accreditation is an

effective process for improving quality of services provided to patients/clients. According to the Difference test , the percent difference registered between respondents who agree, versus the other modalities is statistically significant ($p=0,00000$). There is a statistically insignificant difference between opinions if accreditation is an effective process for improving quality of services provided to patients/clients, versus gender $p>0,05$ (Pearson Chi-square: 3.44748, $p=0.903224$) ; versus age groups for $p>0,05$ (Pearson Chi-square: 9.32718, $p=0.674757$; while it is statistically significant versus professional function in the organization for $p<0,05$ (Pearson Chi-square: 27.9018, $p=0.005723$).

Table 1: Distribution of respondents regarding the answers to the question about accreditation and quality of services provided to patients

Question	N=402(100%)
According to me , accreditation is a meaningful process to improving quality of services provided to patients/clients	
I strongly disagree	1 (0.2%)
I disagree	21(5.2%)
without opinion	57 (14.2%)
I agree	238 (59.2%)
I strongly agree	84 (20.9%)
missing	1(0.2%)

Table 2: Distribution of respondents regarding their opinion about preventing potential organizational problems by complying with accreditation standards.

Question	N=402(100%)
I acknowledge the prevention of potential organizational problems by complying with accreditation standards	
I strongly disagree	4 (1.0 %)
I disagree	37(9.2 %)
without opinion	80 (19.9 %)
I agree	233 (58.0 %)
I strongly agree	45 (11.2 %)
missing	3(0.7%)

The analysis of the answers received from respondents (table no. 2) indicated that the biggest percent of respondents (58.0 % agree , 11.2 % strongly agree), have a positive attitude towards preventing potential organizational problems by complying with accreditation standards. According to the Difference test , the percent difference registered between respondents who agree ,versus the other modalities (without opinion 19.9 % , disagree 9.2% , strongly disagree 1.0%) is statistically significant ($p=0,00000$). There is a statistically

insignificant difference between opinions about preventing potential organizational problems by complying with accreditation standards; versus gender $p > 0,05$ (Pearson Chi-square: 10.6005, $p = 0.225395$); versus age groups for $> 0,05$ (Pearson Chi-square: 6.70632, $p = 0.876389$); versus professional function in the organization for $p > 0,05$ (Pearson Chi-square: 11.7315, $p = 0.467487$).

Table 3: Distribution of respondents regarding their opinion about preventing potential organizational problems by complying with accreditation standards.

Question	N=402(100%)
According to me, the accreditation process is a meaningful process to improving my daily work.	
I strongly disagree	5 (1.2 %)
I disagree	35(8.7 %)
without opinion	78 (19.4 %)
I agree	237 (59.0 %)
I strongly agree	46 (11.4 %)
missing	1(0.2%)

According to the answers received from respondents (table no. 3) the biggest percent of respondents (59.0 % , 11.4 %) agree, strongly agree, that the accreditation process is a meaningful process to improve the daily work of healthcare professionals. According to the Difference test , the percent ual difference registered between respondents who agree ,versus the other modalities (without opinion 19.4 % , disagreed 8,7 % , strongly disagree 1.2%) is statistically significant ($p = 0,00000$). There is a statistically insignificant association between opinions that the accreditation process is a meaningful process to improving the daily work of healthcare professionals versus gender $p > 0,05$ Pearson Chi-square: 10.4030, $p = 0.237887$); versus age groups for $> 0,05$ (Pearson Chi-square:12.3336, $p = 0.419284$); versus professional function in the organization for $p < 0,05$ (Pearson Chi-square: 22.8907, $p = 0.028681$).

Table 4: Distribution of respondents regarding their opinion about undertaking a process of accreditation

Question	N=402(100%)
If your organization was to undertake a process of accreditation , you would approve it and take an active part in it?	
yes	364 (86,1 %)
no	47(11,7 %)
missing	9(2,2%)

According to the answers received from respondents (table no. 4) the biggest percent of respondents (86,1%) agree, that if their organization was to undertake a process of accreditation ,they would approve it and take an active part in it . According to the Difference test , the percent difference registered between respondents who

agree, versus respondents who do not agree (11,7%) is statistically significant ($p=0,00000$). There is a statistically significant association also between opinions, that if their organization was to undertake a process of accreditation, they would approve it and take an active part in it, versus gender $p>0,05$ (Pearson Chi-square: 7.05284, $p=0.029414$); versus professional function in the organization for $p<0,05$ (Pearson Chi-square: 13.0233, $p=0.004588$); while it is statistically insignificant versus age groups for $p>0,05$ (Pearson Chi-square: 3.97123, $p=0.264593$);

4. Discussion

This study assessed the standpoint of medical staff about accreditation in a pre-accreditation period in hospitals in Republic of Macedonia. Accreditation of public healthcare institutions is a major step towards quality, especially if waiting to be introduced for the first time as a national accreditation program. Policy makers work different ways to translate data and evidence to practical solutions when implementing the accreditation program. This requires, among other things regular involvement of the medical staff in the implementation process. Accreditation is anticipated as a prototypical example of a complex intervention in healthcare institutions identifying multiply changes in compliance to standards, patient satisfaction, performance indicators, health professionals' satisfaction and an overall review of the perceptions of accreditation among patients, professionals and other stakeholders [10]. Staff members' own desires to provide good patient care can be held as a powerful tool to promote integration of innovations that improve patient outcomes [11]. In our study majority of the respondents agreed that accreditation is an effective process for improving quality of services provided to patients/clients. There have to be found means to maintain this attitude so staff can continue to be a partner into implementing accreditation.

Another issue concerning accreditation is preventing potential organizational and clinical problems by complying with accreditation standards. The high prevalence of health care risk, such as adverse events, near misses, errors, and other clinical incidents have created great concerns for healthcare organizations in diverse ways [12]. It is the healthcare staff that have to recognize accreditation as means of preventing problems. The majority of the respondents in our study, with their positive answers, supported this role of accreditation.

According to the answers received from respondents, the biggest percent approve the accreditation process as a meaningful process to improve the daily work of healthcare professionals in their organizations. However, integrating mechanisms that transform innovations to habits in a hospital organizational system, like shifts of attitudes and norms and revising and improving performance standards, require time to become a routine in the organization creating a need for one or more key individuals to hold the process in place, through careful monitoring, proactive reminders, and problem solving [11].

Although many studies have been done to evaluate the effects of accreditation and/or certification of hospitals on quality and patient safety outcomes, no conclusions could be reached to support its effectiveness. [13]. Nevertheless, accreditation as a process continues to be recognized worldwide as a process which has a leading role in improving patient and organizational outcomes and it is a process constantly improved and tailored by the actual needs of the country and organization implementing it. In our study, according to the answers

received, the biggest percent of respondents (86,1%) agree, that if their organization was to undertake a process of accreditation, they would approve it and take an active part in it. This attitude from the medical staff is a good precondition for a successful implementation of a process of accreditation in R. Macedonia.

There is a statistically insignificant difference between opinions to the given variables versus age groups, while statistical significance is shown in variables such as accreditation process as a meaningful process to improve the daily work of healthcare professionals versus professional function in the organization and in the variable if their organization was to undertake a process of accreditation, they would approve it and take an active part in it versus gender and versus professional function in the organization.

5. Conclusion

This study finds interrelation of the standpoint of the medical staff, to variables regarding accreditation, in a period before introducing national accreditation in the R. Macedonia. On the basis of the answers of the respondents, we can conclude that variables such as: accreditation process as a meaningful process to improve the daily work of healthcare professionals, preventing potential organizational problems by complying with accreditation standards, the accreditation process being a meaningful process to improve the daily work of healthcare professionals and if their organization was to undertake a process of accreditation, they would approve it and take an active part in it are positively related to the process of accreditation from the standpoint of healthcare providers in healthcare institutions in R. Macedonia.

We hope that the findings of the study provide valuable insight of the perceptions of medical staff in hospitals throughout R. Macedonia. These findings can be used to encourage promoting the process of accreditation in R. Macedonia and we can conclude that the accreditation process will be embraced by the medical staff as a process that can improve many aspects of delivering quality of services to the patients as well as better organizing the day to day work of the healthcare organization. This also is the endpoint goal of accreditation itself, as a process recognized for sustaining quality in healthcare organizations.

6. Constraints and limitations

A limitation of our study is that while it explores the standpoint of medical staff about accreditation it does not include the standpoint of patients and their interaction with the health care professionals. Thus future research should focus on the interaction of patients and health care professionals. A further limitation of our research is that we did not conduct focus groups with health care professionals on primary and secondary health care level, so we could not draw comparisons between the experiences of the two groups. Also future research might benefit from investigating the issue of quality from the standpoint of governmental and other fund raising and policy making bodies in the healthcare system in R. Macedonia, which was not included in our study.

7. Significance

Our study is the first study on the evaluating attitudes and perceptions of health care professionals in the dawn of implementation of accreditation in Macedonia. The design had several important starting points. First, the

professionals who are providing services were involved in the study since its designing. Second, we gathered a data from various profiles in the health care organizations as, doctors, nurses and administrative staff in order to gain various perspectives about the accreditation. Policy implications can be drawn from the health care professionals attitude in efforts to start the process of accreditation in Macedonia. This study takes a relevant approach focusing on attitudes of providers and examining their knowledge tied in with government policy. The study will provide a new contribution to the scientific knowledge and fill the gap in the literature in a preaccreditation period.

Competing interest

The authors declare that they have no competing interests.

References

- [1]. E.Nouwens, J. van Lieshout, and M. Wensing ; Determinants of impact of a practice accreditation program in primary care: a qualitative study, *BMC Fam Pract.* 2015; 16: 78. Published online 2015 Jul 3. doi: 10.1186/s12875-015-0294-xPMCID: PMC4490740
- [2]. MPPomey, AP Contandriopoulos, P Francois, et al. Accreditation: a tool for organizational change in hospitals? *Int J Health Care Qual Assur Inc Leadersh Health Serv.* 2004;17(2-3):113-24. doi: 10.1108/09526860410532757
- [3]. F. El-Jardali , R. Hemadeh , M. Jaafar , L. Sagherian , R. El-Skaff , R. Mdeihly , D. Jamal , N. Ataya . The impact of accreditation of primary healthcare centers: successes, challenges and policy implications as perceived by healthcare providers and directors in Lebanon. *BMC Health Serv Res.* 2014 Feb 25;14:86. doi: 10.1186/1472-6963-14-86.
- [4]. J. Warren. MD. Manning, B. Mary. MS. Farrell, I. Louis, MD. Bezold, Y. John. MD. Choi, M . Kevin. MD. Cockroft, L .Heather, MD. Gornik, D. Scott, MD. Jerome, L. Sandra, AS. Katanick and V. Gary, MD. Heller How Do Noninvasive Imaging Facilities Perceive the Accreditation Process? Results of an Intersocietal Accreditation Commission Survey Article, Wiley Periodicals, Inc.first published online: 13 JUN 2015 DOI: 10.1002/clc.22408© 2015
- [5]. C. Richard Newton, O. T. Mytton, R. Aggarwal, W. B. Runciman, M. Free, B. Fahlgren, M. Akiyama, B. Farlow, S. Yaron,G. Locke, S. Whittaker, Making existing technology safer in healthcare *Qual Saf Health Care* 2010;19:i15-i24 doi:10.1136/qshc.2009.038539 Accepted 7 April 2010
- [6]. A .Alkhenizan , C. Shaw .The attitude of health care professionals towards accreditation: A systematic review of the literature *J Family Community Med.* 2012 May;19(2):74-80. doi: 10.4103/2230-8229.98281.
- [7]. T. Krieg. An Evaluation of the ACHS Accreditation Program: Its Effects on the Achievement of Best Practice. Sydney, Australia: University of Technology; 1996.
- [8]. J . Braithwaite, CD, Shaw, M, Moldovan, et al. Comparison of health service accreditation programs in low- and middle-income countries with those in higher income countries: a cross-sectional study. *Int J Qual Health Care.* 2012;24(6):568-77. doi: 10.1093/intqhc/mzs064
- [9]. Institute for Accreditation of R. Macedonia. Retrieved from <https://www.iarm.gov.mk>
- [10]. K. Brubakk, E.Gunn Vist, G. Bukholm, P. Barach, and O. Tjomsland , A systematic review of hospital

accreditation: the challenges of measuring complex intervention effects *BMC Health Serv Res.* 2015; 15: 280. Published online 2015 Jul 23. doi: 10.1186/s12913-015-0933-x PMID: PMC4511980

[11]. L.Amanda . Brewster L. A. Curry, E. J. Cherlin, Kristina Talbert-Slagle, Leora I. Horwitz and Elizabeth H. Bradley Integrating new practices: a qualitative study of how hospital innovations become routine *Implementation Science* 201510:168DOI: 10.1186/s13012-015-0357-3© Brewster et al. 2015 Published: 5 December 2015

[12]. J. Farokhzadian, N. Dehghan, N.F. Borhani, Assessment of Clinical Risk Management System in Hospitals: An Approach for Quality Improvement, *Global Journal of Health Science*; Vol. 7, No. 5; 2015 ISSN 1916-9736 E-ISSN 1916-9744 Published by Canadian Center of Science and Education

[13]. V. Mumford, K. Forde, D. Greenfield, R. Hinchcliff, J. Braithwaite Health services accreditation: what is the evidence that the benefits justify the costs? *Int J Qual Health Care.* 2013 Oct;25(5):606-20. doi: 10.1093/intqhc/mzt059. Epub 2013 Aug 13.