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## RESEARCH ARTICLE

### A CROSS SECTIONAL STUDY ON EFFECTIVENESS OF IMPLEMENTATION OF NABH STANDARDS AMONG HEALTH CARE WORKER IN A TERTIARY CARE CENTRE IN INDIA

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#### ABSTRACT

**Background:** Avedis Donabedian defined the quality of care as the kind of care, which is expected to maximize an inclusive measure of patient welfare, after taking into account the balance of expected gains and losses associated with the process of care in all its segments. According to the World Medical Assembly, physicians and health care institutions have an ethical and professional obligation to strive for continuous quality improvement of services and patient safety with the ultimate goal to improve both individual patient outcomes as well as population health. National Accreditation Board for Hospital and Healthcare Providers (NABH), is a constituent board under Quality Council of India set up to establish and operate accreditation program for healthcare organizations to assure quality of care. The tertiary care centre where the study was conducted, is accredited by NABH since January, 2012. **Aim:** The purpose of the study was to assess the effect of NABH accreditation on the hospital services as per the healthcare workers employed in the centre, the effect they observe post NABH accreditation and the level of job satisfaction among them post NABH accreditation. **Methodology:** A cross sectional study using simple random sampling was done among employees consisting of pool of doctors, therapists, nurses, pharmacists and administrative staff. A total of 151 staff participated in the study. A self-administered, pre tested, structured questionnaire with 10 questions was used for data collection. Only staff (doctors, therapists, nurses, pharmacists and the administrative staff) working for more than 5 years i.e. who were associated with the organization before and after NABH Accreditation were included in the study. **Results and Conclusion:** More than 80% of participants perceives that there is positive effect of NABH accreditation on the hospital services and the processes has improved in the hospital post NABH accreditation. 85% participants felt an impact on the level of job satisfaction among them post NABH accreditation.

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#### INTRODUCTION

"Health workers: A proven return on investment." #WORKFORCE 2030 and the sustainable development goals, is World Health Organization's global strategy for human resources for health. It states the importance of health workers, working together for the common goal of achieving, Health for all. Health workers are defined as, *all people engaged in the promotion, protection or improvement of the health of the population* (Adams et al., 2003: 276; Diallo et al., 2003). They include health service providers, health management and support workers. The former includes professional and associate professionals as well as other less qualified health cadres engaged in the delivery of health services, whether

personal or non-personal, while the latter are people who help the health system function but do not provide health services directly to the population. Hospitals and healthcare services are vital components of any well-ordered and humane society, and are indisputably the recipients of societal resources. According to the World Health Organization (WHO), Hospitals are health care institutions that have an organized medical and other professional staff, and inpatient facilities, and deliver services 24 hours per day, 7 days per week. They offer a varying range of acute, convalescent and terminal care using diagnostic and curative services. That hospitals should be places of safety, not only for patients but also for the staff and for the general public, is of the greatest importance. Broadly healthcare delivery is evaluated by three categories of measurement namely, structure, process and outcome (Donabedian, 1980). The structure of the hospitals is assessed by the human and material resources available in each hospital. Process denotes the transactions between patients and providers.

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Table 1. Healthcare staff wise percentage response to various parameters

Parameter	Response	Percentage of response				
		Doctors	Nurses	Pharmacists	Paramedics	Admin staff
Improvement in hospital processes post NABH accreditation	Only during inspection	6.25%	4.35%	0%	0%	6.06%
	For few months after inspection	12.50%	2.90%	0%	0%	3.03%
	Continuous improvement	81.25%	91.30%	100%	95%	87.88%
	No improvement at all	0%	1.45%	0%	5%	0%
	Open ended response/ opinion given	0%	0%	0%	0%	3.03%
Patient satisfaction after NABH accreditation	Only during inspection	0%	2.90%	0%	0%	0%
	Has decreased considerably	0%	1.45%	0%	0%	0%
	Continuous improvement	68.75%	89.96%	92.30%	90%	87.88%
	No difference	18.75%	7.25%	7.69%	5%	6.06%
	Open ended response/ opinion given	6.25%	0%	0%	0%	3.03%
Training of clinical and non-clinical staff after NABH	No response	6.25%	1.45%	0%	5%	0%
	Only during inspection	12.50%	2.89%	0%	5%	7.59%
	Appropriate training not provided	0%	5.79%	0%	0%	0%
	Satisfied with the training provided	68.75%	79.91%	92.30%	95%	77.28%
	Not enough time for training	12.50%	10.14%	3.84%	0%	9.09%
Standardization of the system and processes	Open ended response/ opinion given	0%	1.44%	0%	0%	6.06%
	No response	6.25%	0%	3.84%	0%	0%
	Confusion has increased post accreditation	15.65%	11.09%	0%	0%	0%
	No difference before and after accreditation	3.15%	12.54%	0%	5%	3.03%
	Clear understanding of system and processes	81.25%	57.97%	96.20%	95%	87.87%
Contribution of staff in hospital processes after NABH accreditation	Delay in processes (e.g.admission and discharge)	0%	15.94%	3.89%	0%	9.09%
	Open ended response/ opinion given	0%	0%	0%	0%	0%
	No response	0%	2.89%	0%	0%	0%
	I am asked for my input	6.25%	8.69%	7.69%	0%	3.03%
	I am not supervised well by the organization	3.15%	5.79%	0%	0%	0%
Complaint resolution of the staff, post NABH accreditation	I get adequate support from the organization	71.90%	78.26%	92.30%	85%	93.93%
	No difference in my contribution	18.75%	5.79%	0%	5%	0%
	My opinion	0%	0%	0%	5%	0%
	No response	0%	1.44%	0%	5%	3.03%
	Process is very slow	6.25%	13.04%	0%	5%	3.03%
Employee health and safety in the hospital after NABH	No change before or after accreditation	28.15%	8.69%	0%	10%	18.18%
	It has become quicker	62.50%	72.46%	100%	85%	75.75%
	Complaints are not addressed at all	3.15%	2.89%	0%	0%	0%
	My opinion	0%	0%	0%	0%	0%
	No response	0%	1.44%	0%	0%	3.03%
Inter-staff and patient-staff communication and relationship, post NABH accreditation	Health and safety measures taken only during inspection.	6.25%	10.14%	0%	0%	3.03%
	Post inspection health and safety of the staff is neglected	0%	5.79%	0%	0%	3.03%
	Continuous measures are taken for the same	75%	82.60%	100%	100%	90.90%
	No measures taken at all	0%	0%	0%	0%	0%
	My opinion	0%	0%	0%	0%	3.03%
Staff morale and job satisfaction post NABH accreditation	No response	18.75%	1.44%	0%	0%	0%
	Miss-communication has increased	0%	7.24%	0%	0%	0%
	No time for communication	0%	7.24%	0%	0%	0%
	Communication has improved	88%	82.60%	92.30%	95%	96.96%
	Errors due to communication have increased	6%	1.44%	0%	0%	3.03%
Recommending my family members to this hospital for treatment, post NABH accreditation	My opinion	0%	1.44%	7.69%	5%	0%
	No response	6%	0%	0%	0%	0%
	I feel more stressed now	9.40%	20.28%	0%	0%	0%
	No difference before or after accreditation	21.90%	7.24%	0%	0%	6.06%
	I feel motivated to come to work everyday	56.25%	53.62%	65.43%	40%	62.13%
No response	I feel more responsible towards the organization	12.50%	17.39%	34.66%	60%	25.77%
	My opinion	0%	0%	0%	0%	0%
	No response	0%	1.44%	0%	0%	6.06%
	No difference before or after accreditation	18.75%	7.24%	7.69%	7.50%	6.06%
	Would not recommend at all	0%	0%	0%	0%	0%
Definitely recommend	Definitely recommend	75%	82.60%	92.30%	92.50%	93.93%
	Only if no other option	0%	5.79%	0%	0%	0%
	My opinion	0%	1.44%	0%	0%	0%
	No response	6.25%	2.89%	0%	0%	0%

Average response rate for each parameter

Parameter	Average response rate	Highest	Lowest
Improvement in hospital processes	91.09%	Pharmacists 100%	Doctors 81.25%
Patient satisfaction	85.78%	Paramedics 90%	Doctors 68.75%
Training of staff	82.61%	Paramedics 95%	Doctors 68.75%
Standardization of system and processes	83.66%	Pharmacists 96.20%	Nurses 57.97%
Contribution of staff	84.28%	Admin staff 93.93%	Doctors 71.95
Complaint resolution	79.14%	Pharmacists 100%	Doctors 62.50%
Employee health and safety	89.70%	Pharmacists 100%	Doctors 75%
Communication	90.97%	Admin Staff 96.96%	Nurses 82.60%
Staff morale and job satisfaction	85.55%	Pharmacists & Paramedics 100%	Doctors 68.75%
Recommendation to family members	87.27%	Admin staff 93.93%	Doctors 75%

Outcomes are usually evaluated by the standardized mortality ratio which is the ratio of the observed to expected mortality rate in each hospital. In order to set standards and add analytical, counseling and self-improvement dimensions to it, accreditation is needed for any institute. Hospital accreditation has been defined as "A self-assessment and external peer assessment process used by health care organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve". NABH, an acronym for National Accreditation Board for Hospitals & Healthcare Providers, is a constituent board of Quality Council of India, set up to establish and operate accreditation program for healthcare organizations. Its standards have been accredited by International Society for Quality in healthcare (ISQua), the apex body accrediting the accreditator, hence making NABH accreditation at par with the worlds most leading hospital accreditation. The first edition of NABH standards was released in 2006 and after that the standards have been revised every 3 years. Currently the 4th edition of standards, released in December 2015 is in use. There are approximately 196312 hospitals in India, among which only 458 (that is 0.23%) are accredited by NABH. There are a total of 40 hospitals in New Delhi that are NABH accredited. The NABH Accreditation is manpower extensive and dependent, along with the better patient care it also has large impact on the human resource working in an accredited organization. The study was conducted to understand from the perspective of healthcare professional the effect of NABH accreditation on hospital services, behavior of healthcare professionals before and after accreditation and level of job satisfaction after accreditation.

## MATERIALS AND METHODS

A cross sectional study was conducted in a tertiary care hospital in New Delhi from 1<sup>st</sup> May 2017 – 20<sup>th</sup> May 2017 among staff members working in the hospital before year 2012, the year the hospital got NABH accredited. The subjects included doctors, therapists, nurses, pharmacists and the administrative staff. Sample size taken was 33% of the doctors, therapists, nurses, pharmacists and administrative staff, including the dropouts, missed and lost cases. This amounted to 151 staff members. The indirect identifiers were used for staff and informed consent was obtained before participating in the study. Staff/ participants were selected randomly by probability sampling. A self-administered, pre tested, structured questionnaire with 10 questions was used for data collection. Questionnaire included an informed consent along with questions regarding what they feel about the changes that have taken place in their organization post NABH accreditation and also how it has affected their personal lives in terms of morale and job satisfaction. Participants included doctors, therapists, nurses, pharmacists and the administrative staff, who are working for more than 5 years in the hospital and were willing to participate in the study. Housekeeping and security supervisors were excluded from the study.

## RESULTS AND DISCUSSION

Table 1 represents healthcare staff wise percentage response to various parameters given by the participants involved in the study. Table 2 represents average response rate for each parameter. The majority of participant responded positively i.e. Average 91.09% believes there is improvement in hospital processes post NABH accreditation, Average 83.66% believes that there is standardization of the system and processes post NABH accreditation. It was observed that the participants are well satisfied by the NABH accreditation process, 91.09% participants perceives that there is improvement in hospital processes post NABH Accreditation; 85.78% participants perceives that there is continuous improvement in patient satisfaction post NABH Accreditation; 82.61% of participants perceives that they are satisfied with the training provided after NABH Accreditation; 83.66% of participants perceives that there is standardization of system and processes post NABH Accreditation; 84.28% of participants perceives that they get adequate support from the organization for contribution in hospital processes after NABH accreditation; 79.14% of participants perceives that Complaint resolution of the staff has become quicker post NABH accreditation; 89.70% of participants perceives that continuous measures are taken for employee health and safety in the hospital after NABH; 90.97% of participants perceives that inter-staff and patient-staff communication and relationship has improved post NABH accreditation; 87.27% of participants will be definitely recommending this hospital for treatment of their family members post NABH accreditation. 85.55% of participants perceived positive impact on staff morale and job satisfaction; 55.49% of participants felts motivated to come to work every day, 30.06% felt more responsible towards organization post NABH Accreditation.

## Conclusion

More than 80% of participants perceives that there is positive effect of NABH accreditation on the hospital services and the processes has improved in the hospital post NABH accreditation. 85% participants felt an impact on the level of job satisfaction among them post NABH accreditation.

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## REFERENCE

National Accreditation Board for Hospital and Healthcare Providers (NABH) guide book to accreditation standards for hospitals (4<sup>th</sup> edition) December 2015.