



AMERICAN JOURNAL OF MULTIDISCIPLINARY RESEARCH AND INNOVATION (AJMRI)

ISSN: 2158-8155 (ONLINE)

VOLUME 1 ISSUE 1, (2022)



Indexed in



PUBLISHED BY: E-PALLI, DELAWARE, USA

The American Journal of Multidisciplinary Research and Innovation (AJMRI) is a blind peer-reviewed journal, aims to publish the article(s) immediately after submission of the corrected version by the author. The journal publishes articles that include those containing substantially supported theories, innovative works, substantial experimental results, and/or containing useful and constructive discussions or reviews standardized to regional or international acceptance. The AJMRI reviews papers within approximately one month of submission and publishes accepted articles on the internet immediately upon receiving the final versions.

Published Media: ISSN: 2158-8155 (Online)

Frequency: 3 issues per year

Area of publication: Science, Engineering, Physical Sciences, Arts & Humanities, Engineering, Social Science, Language, and Education.

Editorial Team

Dr. A. K. M. Ahasanul Haque, Professor, Faculty of Economics and Management Sciences (KENMS)

International Islamic University Malaysia (IIUM)Malaysia

Prof. Dr. Myint Thuzar, Yezin Agricultural University (YAU), Myanmar

Dr. Sejuti Mondal, Department of Agricultural Sciences, Texas State University, USA

Professor Steve Ryan, Department of English, Southern States University, USA

Professor Dr. Wael Al-aghbari, University President, International University of Technology Twintech – IUTT, Yemen

Dr. Parvez Anwar, Associate Professor, Civil Engineering, University Nottingham, Malaysia

Dr. Mohammed Ashikur Rahman, Department of Computer Science, University of South Asia, Bangladesh

Dr. Sandra Milena Camargo Silva, Materials Engineering, Pedagogical and Technological University of Colombia, Colombia

Dr. Marhanum Che Mohd Salleh, Associate Professor, Faculty of Economics and Management Sciences (KENMS), International Islamic University Malaysia (IIUM), Malaysia

Dr. Nida Jafri, Consultant, Green Empowerment, Portland, USA

Dr. Md. Sohel Rana, Associate Professor, Department of Mathematical and Physical Sciences, East West University, Bangladesh

Dr. Hafizah Hammad Ahmad Khan, Faculty of Business & Management, Universiti Teknologi MARA, Kedah, Malaysia

Avegale C. Acosta, Department of Psychology, School of Social Sciences, Ateneo de Manila University, Philippines

Mrs. Safeena Beevi. S.S, Associate Professor JN Medical College, College of Nursing Aligarh Muslim University Uttar Pradesh, India

Dr. Sun Xi, Associate Professor, Department of Parasitology, Zhongshan Medical College, Sun Yat-sen University, Guangzhou, China

Dr. Noha Essam Khamis, Associate Professor, Faculty of Applied Sciences and arts

German University in Cairo (GUC), Egypt

Ar. Sajal Chowdhury, Department of Architecture, Chittagong University of Engineering & Technology (CUET), Bangladesh

Contact:

American Journal of Multidisciplinary Research and Innovation (AJMRI)

E-Palli LLC

Address: 2055 Limestone Rd Ste 200C, Zip Code: 19808, Wilmington, Delaware, USA

Email: ajebe@e-palli.com

Phone: +1 3024070506

URL: <https://journals.e-palli.com/home/index.php/ajmri>

Patient's Satisfaction and Barrier to Seek Services From the Nurses in a Tertiary Level Hospital

Surjomokhi Das^{1*}, Noni Bagchi²

Article Information

Received: January 22, 2022

Accepted: February 25, 2022

Published: March 9, 2022

Keywords

*Patient's satisfaction, barrier,
hospital service, tertiary level*

ABSTRACT

This Quantitative study was conducted among the patients of BIRDEM, Dhaka. The objective of the study was to assess the user expectations, degree of client satisfaction and quality of health care provided in tertiary level hospital in Bangladesh. A total of 100 respondents were chosen by systematic random sampling and interviewed. The findings of the study show that the client satisfaction depends on providers' behavior, especially respect and politeness. A reduction in waiting time (on average to 30 min) was more important to clients than a prolongation of the quite short consultation time (on average 2 min, 22 sec), with 75% of clients being satisfied. Patients spend 10 minutes or less than that for checkup. Because of the overload of patients, existing facilities, and number of service providers, delay in service can be acceptable. 29.8% respondents treated overload of patients at the hospital facility as the responsible factors, whereas lack of skilled manpower and lack of doctors were marked as the reasons by 22.5% and 19.7% consecutively. Finally, the study recommends that increasing the resources and proper supervision and monitoring may be the solution to improve the service quality of the hospital.

INTRODUCTION

Patient satisfaction is a quality indicator that measures how patients feel about one or more areas of the hospital care system (Vaz, 2018). Quality health care is now an option and a right for people, whether they receive it in a private or public setting. Patient satisfaction is the only factor that determines the level of service provided, which is the primary goal of private hospitals. There are several factors that contribute to patient satisfaction and a positive patient experience. The fundamental elements of a private hospital's objective to offer quality care are to attract and retain competent employees, including medical and administrative personnel, to acquire patient loyalty, to create a friendly environment, and to secure a position among competitive healthcare in the marketplace (Rivers & Glover, 2008).

When we talk about developing countries like Bangladesh, life expectancy, disability, and illness load lead to increased morbidity and mortality as a result of the physical, mental, and economic deprivation that people in these countries face. Developing medical technologies, patients' health-seeking behavior, and knowledge levels, on the other hand, are all variables that compel patients to be more satisfied (Mosadeghrad, 2014b).

The extent of an individual's experience in comparison to his or her expectations is defined as satisfaction. We should not judge patient satisfaction only on the clinical quality of the health care we delivered. Patients must not just get unwell as a result of the etiological disease; social-cultural and behavioral factors must also play a role in becoming ill. (Hernandez & Blazer, 2006). People should be healthy as a result of holistic services such as physical, mental, social, and spiritual. It implies that patient satisfaction

can be defined in broader terms. The importance of the patient's perspective in health care, as well as further research to understand the interrelationships between health demands, satisfaction, and quality of life (Asadi-Lari et al., 2004). Based on 25 years of experience in the healthcare field. In a private mid-level hospital in Dhaka, the situation is nearly identical. It shows that consumers want the hospital to provide them with high-quality services. As a result, it's also crucial to look into the level of satisfaction among patients who visit the chosen hospital for services (Fang et al., 2019).

The goal of this study is to determine how satisfied patients are with the services offered at the BIRDEM hospital in Dhaka.

LITERATURE REVIEW

The level of patient happiness or dissatisfaction is determined by the hospital's quality. The extent of an individual's experience in comparison to his or her expectations is defined as satisfaction (Asadi-Lari et al., 2004). Quality health care is now an option and a right for people, whether they receive it in a private or public setting. Patient satisfaction is the only factor that determines the level of service provided, which is the primary goal of private hospitals (Mosadeghrad, 2014a). People should be healthy by receiving holistic services such as physical, mental, social, and spiritual. It implies that patient satisfaction can be defined in broader terms. The importance of the patient's perspective in health care, as well as further research to understand the interrelationships between health demands, satisfaction, and quality of life (Boev, 2012).

For a variety of reasons, the ability to please customers

¹ Lecturer, BIRDEM Nursing College, Dhaka, Bangladesh

² Acting Principal, BIRDEM Nursing College, Dhaka, Bangladesh.

* Corresponding Email: surjomukhidas@gmail.com

is critical. For one thing, today's customers of health-care services in industrialized countries are more knowledgeable, owing to the increased amount of information available to them. As a result, these purchasers are more discriminating, knowing exactly what they require. Customer happiness is also a business advantage; hospitals that prioritize their customers have seen increased capacity utilization and market share (Boscarino, 1992; Gregory, 1986). Recent research has shown that service satisfaction can significantly enhance patients' quality of life (Dagger & Sweeney, 2006) and enable service providers to determine specific problems of customers, on which corrective action can then be taken. In emerging countries, patients' voices should result in similar changes (Oja et al., 2006).

Dissatisfied clients are also more likely to complain to the establishment or seek remedy from it in order to alleviate cognitive dissonance and unsuccessful consuming experiences (Nyer, 1999). In fact, dissatisfaction can have serious consequences: patients are less likely to adhere to treatment regimens, are more likely to miss follow-up appointments, and, in extreme cases, may resort to negative word-of-mouth, which can deter others from seeking health care through the system or persuade them to seek it elsewhere, often abroad (Andaleeb et al., 2007). A substantial amount of literature has been reviewed, including books, journals, dissertations, and internet-based information. Some were national, while others were international. The majority of the studies looked at hospital services and patient satisfaction.

A study on outpatient satisfaction was undertaken at a super speciality hospital in Kerala, India, to determine the level of patient happiness. The study's primary findings were that 90-95 percent of 200 patients surveyed in the OPD were satisfied with the hospital's service. This survey also revealed that certain patients' wait times were excessively long, and that the nursing staff's friendliness needed to be addressed. Similarly, when it came to patient awareness of hospital services, the study found that 28.5 percent of patients stated they were extremely knowledgeable about the services. 37.5 percent indicated they are aware of the specifics of individual treatment, while 29 percent stated they don't know much and want to learn more. Sixty percent of those who received help from the hospital reported that the staff always guided them. The hospital's security team gave guidance to 40% of the patients (Jawaha, 2007).

Another finding of the study was that 57 percent of people have to wait for lengthy periods of time to see a doctor on occasion, while 15 percent have never had to wait for long periods of time. Finally, 96.5 percent of patients were satisfied with the amount of time doctors spent with them during consultations. In terms of doctor behavior, 56 percent stated doctors were well behaved, while 97.5 percent of patients were satisfied with consultation privacy. It concludes that patient feedback is critical for quality improvement (Baines et al., 2018).

"Health" was defined by the World Health Organization

(WHO) in 1948 as "a state of complete physical, mental, and social well-being, rather than simply the absence of sickness or infirmity." This is a complete definition. It expresses clearly what the purpose of health-care action should be (World Health Organization, 1946).

Medical practitioners, on the other hand, tend to concentrate on a medical model of health care that includes a history and examination, investigation and treatment, and finally clinical evaluation of effective outcomes. This method has been chastised for resulting in a doctor-patient connection (Chipidza et al., 2015). In order to provide a holistic service, a positive relationship between the patient and the hospital management team, including medical employees, is critical (Zamanzadeh et al., 2015).

METHODOLOGY

Study Design

This study was Quantitative in Nature and Social survey method has been applied for conducting.

Study place

The study place was conducted on patients of BIRDEM Hospital under Dhaka city.

Study population and Unit of Analysis

The study populations were randomly selected 100 patients as the respondents who attending BIRDEM for treatment.

Sample Size

The sample size was purposively fixed at 100 patients only.

Sampling technique

Through Nonprobability purposive sampling, 100 patients were selected randomly as the respondents who attending BIRDEM.

Research tools

A comprehensive and open-ended questionnaire was created, which included information on the socio-demographic status of diabetes registrar patients, as well as information on their foot care practices, eating habits, diabetic prevalence, and so on. A check list was used to analyze their foot care and infection status in order to determine if they had a foot infection.

Data collection method

A systematic questionnaire was used to collect data. Information about socio-demographics, satisfaction with hospital services, and satisfaction with the behavior of hospital staff, especially nurses and ward boys.

Conduction of the study, Quality control and monitoring

The data was obtained by the investigator herself at the BIRDEM hospital. At the end of each working day, the investigator evaluated and validated the collected data. The next working day, any inaccuracies and inconsistencies were fixed. Foot care instruction was also pushed among the study's uninformed diabetes patients for ethical reasons.

Data processing and Statistical analysis

The data was analyzed using the SPSS software suite.

All variables were analyzed using descriptive statistics. The percentages were used to represent the values. Performance, mean, standard deviation, table, graph, chart, and statistical information are all used to interpret the data.

Inclusion Criteria

- Patients attending the BIRDEM for their treatment
- Willing to take part in the study
- Healthy enough to respond

Exclusion Criteria

- Unwilling to participate in the study

Informed Consent

The responders and interviewer will fill out a well-written and well understood informed consent form. However, translations were done thereafter, based on the respondents' requirements. This guarantees that all participants receive the information they require to make an educated decision.

RESULTS

The results from questionnaire surveys on knowledge and practice to foot care of diabetic patients are described as follows:

Table 1: Age of the respondents

| Age | Frequency | Percent |
|--------------|-----------|---------|
| 11-20 | 6 | 6.0 |
| 21-30 | 18 | 18.0 |
| 31-40 | 30 | 30.0 |
| 41-50 | 14 | 14.0 |
| 51-60 | 13 | 13.0 |
| 60 and above | 19 | 19.0 |
| Total | 100 | 100.0 |

The age groupings of the respondents were established in order to learn more about the age of the respondents, who are mostly the beneficiaries or clients of tertiary level hospitals. Only 6% of the respondents in the age group of 11-20 years used to receive medical care from a tertiary hospital, according to the findings. That signifies that only a small proportion of adolescents seek medical care from tertiary hospitals, and that this frequency also suggests that tertiary hospitals offer few adolescent healthcare services.

Table 2: Education level of the respondents

| Education | Frequency | Percent |
|------------------|-----------|---------|
| Illiterate | 29 | 29.0 |
| Primary | 28 | 28.0 |
| Secondary | 13 | 13.0 |
| Higher Secondary | 10 | 10.0 |
| College | 13 | 13.0 |
| Higher Educated | 7 | 7.0 |
| Total | 100 | 100.0 |

Thirty percent of the clients are between the ages of 31 and 40. A total of 19 people over the age of 60 were detected among the responders.

When it came to the educational status of the clientele in the study region, it was discovered that nearly a third

(29%) of the respondents were illiterate. In addition, 28 percent of the respondents had only received primary education. Thirteen percent of the respondents had completed secondary school and thirteen percent had completed college. Only 7% of those polled said they had completed high school or have a bachelor's degree

Patients were asked how long they had to wait for their checkups, and the majority of them (63%) said they had to wait 10 minutes or less, while 17% said they had to wait 11 to 30 minutes. 6 percent of those polled said they had to wait 30-45 minutes. 15% of respondents also stated that they must wait for more than 45 minutes, with some even stating that their wait time exceeds one hour.

Table 3: Waiting time for checkup Apart

| | Frequency | Percent |
|------------------------------|-----------|---------|
| 10 minutes or less than that | 63 | 63.0 |
| 11-30 minutes | 17 | 17.0 |
| 31-45 minutes | 6 | 6.0 |
| Above 45 minutes | 15 | 15.0 |
| Total | 100 | 100.0 |

Table 4: Support service from hospital

| Need for IV saline infusion | | Frequency | Percent |
|-----------------------------------|------------|-----------|---------|
| | Yes | 79 | 79.0 |
| | No | 21 | 21.0 |
| | Total | 100 | 100.0 |
| Have Respondents got the facility | | | |
| | Yes | 15 | 15.0 |
| | No | 85 | 85.0 |
| | Total | 100 | 100.0 |
| Did respondents buy the saline | | | |
| | Yes | 79 | 79.0 |
| | No | 21 | 21.0 |
| | Total | 100 | 100.0 |
| Cost of saline | | | |
| | Up to 100 | 19 | 24.1 |
| | Up to 500 | 31 | 39.2 |
| | Up to 1000 | 29 | 36.7 |
| | Total | 79 | 100.0 |

All respondents were asked if they needed any saline infusions, and 79% said they did, while 21% said they didn't. Only 15% of responders said they got saline from the hospital. This multiple response table also shows that 79 percent of responders have to purchase saline from outside sources. In order to determine how much respondents had to pay for saline, 24.1 percent of respondents stated that the cost of saline was around 100 takas. The expense of up to 500 takas was likewise borne by 39.2% of the respondents. About 36.7% respondents mentioned that they had to pay more than 1000 taka for the saline.

To determine and understand the nature of medicine support for the respondents, it was observed that, 71% of the respondents got the medicine from the facility whereas, 29% of the respondents did not get any medicine support. Those who receive medicine from the facility,

8.7% of them have faced problem to get the medicine whereas 91.3% did not feel any problem to get

Table 5: Medicine facilities at the service

| Get medicine from that facility | Frequency | Percent |
|----------------------------------|-----------|---------|
| Yes | 71 | 71.0 |
| No | 29 | 29.0 |
| Total | 100 | 100.0 |
| Face any problem to get medicine | | |
| Yes | 8 | 8.7 |
| No | 84 | 91.3 |
| Total | 92 | 100.0 |
| Buy medicine of outside | | |
| Yes | 90 | 90.0 |
| No | 10 | 10.0 |
| Total | 100 | 100.0 |

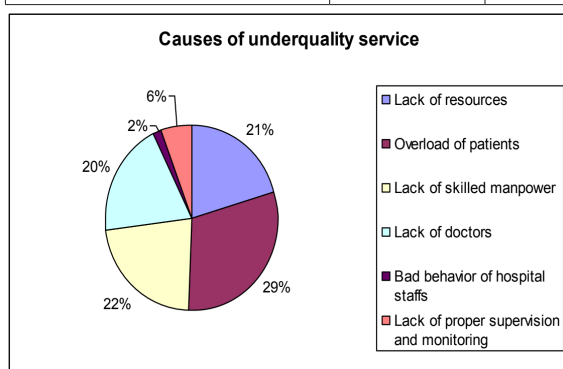


Figure 1: Causes of lower quality of services.

the medicine, and this study suggested that most of the respondents who hadn't faced the problem for purchasing medicines, used to purchase it from outside the facility and they constitute about 90% of the whole respondents. To know about what the practical limitations are or causes for the under-quality service at the tertiary level hospital, respondents were requested to inform about the problems and responding that, 20.6% mentioned the scarcity of the resources as the under quality of service. 29.8% respondents treated overload of patients at the hospital facility as the responsible factors, whereas lack of skilled manpower and lack of doctors were marked as the reasons by 22.5% and 19.7% consecutively. 5.5% respondents believed that lack of proper supervision and monitoring as to be the responsible factors. Only 1.8% respondents illustrated bad behavior of hospital staffs and doctors as a cause of under quality service.

Table 6: Suggestion for increasing the quality of service

| Service Provided | Frequency | Percent |
|--------------------------------------|-----------|---------|
| Increase resources | 55 | 25.2 |
| Increase number of doctors | 52 | 23.9 |
| Regular visit to the patients | 47 | 21.6 |
| Behavioral change of hospital staffs | 42 | 19.3 |
| Proper supervision and monitoring | 22 | 10.1 |
| Total | 218 | 100.0 |

Patients were also requested to share their thoughts on how to improve the quality of service provided by service

providers. As a result, 25.2 percent of respondents said that boosting resources may be a good strategy to improve service quality. Increase the number of doctors and service employees, as indicated by 23.95 respondents. Regular visits by the service provider to the patients, according to 21.6 percent of respondents, can improve service quality. Behavioral change among hospital employees may be a suitable strategy for improving service quality, according to 19.3 percent of respondents. In addition, 10% of respondents stated that competent supervision and monitoring can be a beneficial method for improving service quality

CONCLUSION

We believe that improving medical care in Bangladesh necessitates paying attention to service aspects that patients rate on a regular basis. Doctors, nurses, tangibles, process features, and so on are examples of these features. However, in order to strengthen the health-care system, additional organizational and extra-organizational challenges must be addressed. Studies are needed, for example, to look into the influence of political elements, the commitment of the (MOHFW higher)'s authorities (especially those in the Directorate of Health), the cooperation and coordination achieved with affiliated ministries such as the Ministry of Establishment (for recruitment purposes) and the Ministry of Finance (to provide funds), and the role and quality of development partners' involvement (e.g. the World Bank, USAID, WHO, UNFPA, etc.). At these higher layers of the health design and delivery system, where human, financial, technical, and policy problems are negotiated, changes in attitudes and practices are critical for the health care system to respond appropriately and offer the needed services to deliver patient satisfaction. As a result, policymakers must acknowledge that a segment of the population chooses high-quality services to a less expensive but inferior option that could increase future expenditures. As a result, it might be advantageous to consider health-care delivery from the perspective of market segments, where prices are prioritized for some and service is prioritized for others, but with the correct balance that meets basic criteria. In light of these circumstances, this research looks into the elements that influence patients' satisfaction with health-care services, as well as their experiences with public, private, and international institutions. Data mining techniques can be used to increase customer satisfaction and monitor service using a machine learning methodology. A deeper understanding of the factors that influence patient satisfaction in various types of hospitals should aid policymakers and decision-makers in developing and implementing effective health-care reforms in the country.

Recommendation

- The lack of doctors and nurses, as well as their negative attitudes and behaviors, are key barriers to public hospital utilization. For mutual understanding and service pleasure, suitable behavioral training and good attitudes

must be formed among service personnel and patients.

- Patients who go through the physical, psychological, social, and financial experiences that come with the total health-care delivery process will be able to make an accurate evaluative evaluation of how they were treated, as evidenced by their overall satisfaction or dissatisfaction measures.

- Client satisfaction is influenced more by the interpersonal aspect of care, access to care, and continuity of care than by perceived technical quality of care. As result, patients and laypeople may have a different understanding of quality than health care professionals, and further efforts are needed to clarify and specify the meaning, significance, and limitations of the concept of client satisfaction in Bangladesh.

- Policymakers and decision-makers must be able to effectively increase health-care quality while maintaining a balance between providers' and patients' perceptions of what quality implies.

REFERENCE

- Andaleeb, S. S., Siddiqui, N., & Khandakar, S. (2007). Patient satisfaction with health services in Bangladesh. *Health Policy and Planning*. <https://doi.org/10.1093/heapol/czm017>
- Asadi-Lari, M., Tamburini, M., & Gray, D. (2004). Patients' needs, satisfaction, and health related quality of life: Towards a comprehensive model. *Health and Quality of Life Outcomes*. <https://doi.org/10.1186/1477-7525-2-32>
- Baines, R., Regan De Bere, S., Stevens, S., Read, J., Marshall, M., Lalani, M., Bryce, M., & Archer, J. (2018). The impact of patient feedback on the medical performance of qualified doctors: A systematic review. *BMC Medical Education*. <https://doi.org/10.1186/s12909-018-1277-0>
- Boev, C. (2012). The Relationship Between Nurses' Perception of Work Environment and Patient Satisfaction in Adult Critical Care. *Journal of Nursing Scholarship*. <https://doi.org/10.1111/j.1547-5069.2012.01466.x>
- Boscarino, J. A. (1992). The public's perception of quality hospitals II: Implications for patient surveys. *Hospital and Health Services Administration*.
- Chipidza, F. E., Wallwork, R. S., & Stern, T. A. (2015). Impact of the doctor-patient relationship. *Primary Care Companion to the Journal of Clinical Psychiatry*. <https://doi.org/10.4088/PCC.15f01840>
- Dagger, T. S., & Sweeney, J. C. (2006). The effect of service evaluations on behavioral intentions and quality of life. *Journal of Service Research*. <https://doi.org/10.1177/1094670506289528>
- Fang, J., Liu, L., & Fang, P. (2019). What is the most important factor affecting patient satisfaction – A study based on gamma coefficient. *Patient Preference and Adherence*. <https://doi.org/10.2147/PPA.S197015>
- Gregory, D. D. (1986). Building on your hospital's competitive image. *Trustee: The Journal for Hospital Governing Boards*.
- Hernandez, L. M., & Blazer, D. G. (2006). *Genes, behavior, and the social environment: Moving beyond the nature/nurture debate*. In Genes, Behavior, and the Social Environment: Moving Beyond the Nature/Nurture Debate. <https://doi.org/10.17226/11693>
- Jawaha, S. K. (2007). A Study on Out Patient Satisfaction at a Super Specialty Hospital in India. *Internet Journal of Medical Update - EJOURNAL*. <https://doi.org/10.4314/ijmu.v2i2.39849>
- Mosadeghrad, A. M. (2014a). Factors affecting medical service quality. *Iranian Journal of Public Health*.
- Mosadeghrad, A. M. (2014b). Factors influencing healthcare service quality. *International Journal of Health Policy and Management*. <https://doi.org/10.15171/ijhpm.2014.65>
- Nyer, P. U. (1999). Cathartic Complaining as a Means of Reducing Consumer Dissatisfaction. *Journal of Consumer Satisfaction, Dissatisfaction & Complaining*.
- Oja, P. I., Kouri, T. T., & Pakarinen, A. J. (2006). From customer satisfaction survey to corrective actions in laboratory services in a university hospital. *International Journal for Quality in Health Care*. <https://doi.org/10.1093/intqhc/mzl050>
- Rivers, P. A., & Glover, S. H. (2008). Health care competition, strategic mission, and patient satisfaction: Research model and propositions. *Journal of Health, Organisation and Management*. <https://doi.org/10.1108/14777260810916597>
- Vaz, N. (2018). Patient satisfaction. In *Healthcare Administration for Patient Safety and Engagement*. <https://doi.org/10.4018/978-1-5225-3946-9.ch010>
- World Health Organization. (1946). Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference. *Official Records of the World Health Organization*.
- Zamanzadeh, V., Jasemi, M., Valizadeh, L., Keogh, B., & Taleghani, F. (2015). Effective factors in providing holistic care: A qualitative study. *Indian Journal of Palliative Care*. <https://doi.org/10.4103/0973-1075.156506>
- M. A. Rahman, N. Akter, and S. M. Saleh, (2017) "Health Data Mining: Machine Learning Approach," *Univ. South Asia J.*, 3(1), 89–97.
- M. A. Rahman and A. Tumian, "Variables Influencing Machine Learning-Based Cardiac Decision Support System: A Systematic Literature Review," *Appl. Mech. Mater.*, vol. 892, 274–283, Jun. 2019, doi: 10.4028/www.scientific.net/amm.892.274.
- A. I. L. M. A. R. T. Rahman, (2017) "Mining Weighted Association Rules Using Probabilistic and Combinational Approach," *Int. J. Sci. Res.*, vol. 6(2), pp. 475–479, doi: 10.21275/ART20163652.
- M. A. Rahman and T. Rahman, (2017) "Proposed Machine Learning Model to Predict Child Birth Process," *Univ. South Asia J.*, 3(1), 117–124.
- Mohammed Ashikur, Rahman et al., (2016) "Socio-demographic Characteristics & Pattern of Disease among Patients attending in Alternative Medical Care- A Cross-sectional Analysis Bangladesh Journal of Public," *Bangladesh J. Public Heal.*, 01(01), 59–61.