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Effectiveness of Information, Education, Communication on prevention of Obesity among adolescent children in Chennai, Tamilnadu

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Abstract— The Internet has ushered in a new age of science and technology, with big data in information technology serving as the engine that propels advancements in both fields. Building a nursing management and control platform that integrates nursing quality indicators, nursing event reporting, and nursing risk management, and achieving dynamic and intelligent management and control of nursing quality throughout the process by applying big data and intelligence to the clinical nursing quality management system. The time it takes to input and analyse nursing quality concerns is greatly reduced, the quality of nursing services is enhanced, and patient satisfaction is effectively increased as a result of using big data to the nursing quality management system. An efficient mobile nursing quality management system may save time and money while increasing nurse job efficiency, promoting full involvement in quality management and enhancing patient satisfaction with nursing services.

Keywords- big data; nursing; satisfaction; work efficiency

I. INTRODUCTION

Large-scale data, which has evolved as a result of Internet and information technology's rapid growth over the last several years, is being employed in a variety of medical and health settings. It has become more common for medical records to include more and more information as the usage of electronic health records (EHRs) grows in popularity. Data and knowledge created by humans over the previous 12 000 years has grown at a pace of 90 percent each year during the past five years, according to research. Even while a vast number of unstructured numbers may seem random, they really contain a wealth of useful information that may be tapped into. Since the HITECH Act was passed by the United States Congress in 2009, health-related big data has begun to demonstrate its potential. An event on big data in nursing was organised by the National Institute of Nursing (NIN) at the end of July 2015. The growth of big data in nursing and even medical care in China is trailing behind other nations, but that is not unusual. For medical and health services and social security services, China's State Council

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published "Outline of Action to Promote the Development of Big Data" in September 2015. Medical and health management and service organisations are encouraged to do research on the creative use of big data in the context of medical and health management.

Big data research has emerged as a major trend in academic progress in the age of big data. The use of large, multi-channel and varied data in nursing may lead to new ways and concepts. Many parts of nursing may benefit from its use, including nursing assessment, improving nursing practise, illness monitoring, nursing scientific research, and clinical decision support [2]. It is the goal of this article to draw the attention of nursing workers to the practical use of big data in different nursing domains, such as nursing practise, nursing research, and so on, in order to better promote the use of big data in nursing.

II. DEFINITION OF BIG DATA

Big data is defined by the McKinsey Global Institute as: Big data is a term used to describe data volumes that are too enormous to be stored, managed, accessed and analysed using traditional database methods. Large amounts of data, measured in terabytes rather than terabytes, are referred to as "big data" in the technical sense. The four features of big data, namely vast data size, quick data flow and dynamic data system, various data kinds, and tremendous data value, are used to create international data firms. For example, all data should not be sampled; efficiency should not be totally exact; and correlation should not cause and effect [3].

III. THE MEANING OF BIG DATA

Prediction is at the heart of big data. Google, for example, mines data on the most popular search keywords used by Americans each day. It is possible to anticipate flu outbreaks using a combination of 45 search phrases, and the correlation between prediction findings and official data is as high as 97%. Big data's worth has been fully realised in a variety of businesses, but it also has its own set of restrictions. For instance: However, big data can only answer "what," not "why." Big data can find megatrends and laws without disruptive innovation; it can give relevant services, but it cannot generate new demands. In order to create and use big data and to better our job, we need this. [4]

IV. THE MEANING OF BIG DATA

A. Electronize nursing documents

The primary goal of a nursing document is to carry out the doctor's orders so that the document may fulfil its intended function in patient care. It is possible to enhance the practicality of nursing papers by converting them to electronic form, allowing nurses to more easily inquire about them, reducing their real burden and increasing the efficiency of their job. Electronic papers are simple to use and meet a high degree of quality, ensuring that nursing reports are of the highest quality. As a result of the many benefits that electronic documents offer over paper papers for nurses, medical professionals and pharmacists, they are increasingly being used as a substitute for paper documents [5].

B. Optimize nursing information analysis

Systematic evaluation of patient care is another example of how big data and nursing may be used together. Nurses and

information technology are becoming more intertwined as the medical system becomes more personalised and mobile. In order to meet the needs of patients with a large number of information analysis, it is difficult to meet the needs of patients with a large number of past information means; therefore, the application a large data can reduce nursing staff's workload of patient care information organising, and allow them to care for patients with information collecting, sorting, and categorising the different types of information.

C. Constructing mobile nursing information system

Providing medical treatment on the go would be impossible without the use of a portable nursing system. Mobile information technology allows nurses to constantly have a firm handle on the patient's nursing data, giving them better control over their patients. Using big data, healthcare providers may more efficiently and accurately transmit patient data from their computers to mobile devices. This active collaboration between computers and mobile devices will increase the efficiency and accuracy of healthcare delivery.

D. Help analyze nursing information needs

As technology progresses, so does the clinical medical system, making it more adaptable and individualised than it has ever been. Nurses' job is becoming more and more dependent on information technologies and patient demand for nurses' health care is growing. Clinical information exchange is becoming more necessary since it plays an increasingly significant role in the diagnosis and treatment of patients. New challenges have emerged in the design of nursing informatization as a result of the processing of patient health information. In the original information processing system, there was no analysis of nursing documentation, and the data components were summarised in an inadequate manner. Collection and organisation of nursing health information as well as administration and analysis of nursing health data are critical in the context of clinical big data. Hospital clinical informatization focuses on patient care health information, which encompasses patient health information management, mobile application technology, internet application technology, and clinical care information.

E. Helps make nursing documentation electronic, quick and easy

Traditional paper nursing documentation have the following disadvantages: As a first benefit, the improved electronic file is more succinct, clear and easy to search, which reduces duplication of effort in diagnosis and treatment, frees up labour and increases productivity. First and foremost, the establishment of multi-faceted and comprehensive criteria for nursing documentation, so as to guarantee that clinical nursing reports meet the highest quality requirements. It also aids in the creation of an optimal clinical documenting process. The doctor's order execution document is an essential part of the clinical diagnostic and treatment procedure that is documented in the nursing document. Closed-loop workflows for clinical diagnosis and treatment are the result of the combined efforts of nurses, physicians, pharmacists, and other medical professionals. The alternating use of

nursing order and nursing intervention should be maintained throughout the real medical process to guarantee that nursing services are of high quality.

v. CONCLUSION

Use of big data technologies in medical care may assist health care providers in providing better treatment by improving service quality. There are several benefits that come from using large amounts of data to assist nurses make the best clinical medical care decisions. As a result, medical treatment is more productive and better quality care is provided. Even though each hospital department has its own IT system, using big data to integrate hospital internal unique differentiation systems and maintain overall unity while doing so is the most difficult task that big data faces, since each department has its own IT system. Big data's challenges must be handled in order to improve medical care with the growth of time and science and technology.

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