Application of Statistics in Health

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Statistics plays a vital role in the research, decision-making, and planning in the health sciences. Every country in the world needs health statistics to identify the root cause of certain health care problems like the death rate of people due to chronic illness, reasons of diseases and how many people die after suffering from certain diseases, etc. This will help different countries to prioritize the solution and prevention of a health problem that their country is facing.

Due to the volume of data generated in the health care facilities, it is important to maintain the statistical data. Hospitals, health insurers and pharmaceutical companies are required to understand the patient characteristics to evaluate their symptoms, efficiency of various treatments, etc. For this purpose, statistical data is very important as it provides complete information about the risks and complications in patients’ health which further helps in making a decision that might help the patients and insurers. (Murdoch & Detsky, 2013).

Health care is focused on the research-based practices that involve the use of treatments which have certain evidence based on the statistical data demonstrated in that particular field of research. It is, therefore, important for all the medical practitioners to have a better knowledge of the statistical studies as it will help them in assessing the efficiency of the treatment and interventions. Moreover, having statistical knowledge, practitioners can also conduct studies on their own that will further benefit patients. Additionally, statistics also help to deliver valuable information about the current of society with the help of scientific evidence. As a result of this many scientific journals on health care are using this approach to address the issues that our health care system is facing. While discussion about the role of statistics in health care safety and quality it is noticed that although health care facilities generate a large amount of patient’s data yet only a few hospitals are able to use this data to identify the problems in the health care facilities that include hospital staff, practitioners and pharmacies. It is very important for every healthcare facility to understand the statistics as these statistics will help them improve their hospital quality and safety. These statistics also help in understanding the problem any hospital is facing like patients injuries due to staff negligence, people getting infected inside the hospitals, etc. By having all the knowledge through statistical data, the hospital management can implement new strategies to ensure the quality of hospital and patient’s safety (Lee et al., 2019).

Statistics not only help in the identification and prevention of any specific disease or health care issues but it also helps in the promotion of health care. Health promotion facilitates people by empowering them to increase control over their health so that they can improve their health. It basically, covers all the social and environmental interventions designed to improve people health quality by addressing causes of illness, its prevention and treatment. Statistics plays an important role in health promotions as the data acquired by conducting different surveys and researches enables one to get the complete insight into the main problem in the health of people living in any specific area or region.

Statistics plays a significant role in healthcare leadership. Talking specifically about nursing leadership statistics helps a lot. Statistics provides an idea of a team’s performance and issues that the team is facing. This will help the leader to identify the root cause of the team problems and to efficiently overcome these issues to provide better health care quality. It is, therefore, important that nurses or any other health care leader should have an idea about the statistical studies so that they can evaluate the data provided to them and can also do their surveys to collect information regarding issues that their organization or team is facing (Jeffery, 2019).

**Role of Statistics in Nursing**

While working in the community care health facility I came across the importance of statistics in nursing. To enhance patient care nurses are supposed to go through all the statistical data to prioritize treatments and patient needs of immediate medical attention. This data will not only help nurses but doctors as well as they can change or continue the treatment according to the information provided by statistics.

Working as a nurse, my responsibility was to maintain the charts that document the timing of medications prescribed to the parents, and patient’s response to a certain treatment. This chart is also a type of statistical data. To collect this data it is important to select the medium of noting the data. I chose the manual method for collecting information as I can mention every detail in that. Furthermore, it is important to make a list of medications and timings that are prescribed by the doctor. Then patient response will be mentioned across the medicines to ensure that whether medicines are working or not. This data helped the senior nurses and doctors to understand the patient’s condition effectively. As the patient was recovering, the data I collected helped the doctors and they reduced the dosage of patient medication.

Besides the above-mentioned data, I was assigned a task to conduct a survey regarding the quality and safety of patients. This survey includes a questionnaire that includes different questions regarding patient safety and hospital quality. After that, the data was analyzed and results were submitted to the authorities. This helped me to learn the use of statistics in various fields in the hospital. After the data collection, the important step was decision making. The statistical data provided the authorities with an insight into the problems that their organization is facing. The survey I conducted shows lack of safety of patients due to the shortage of nurses in the hospital. This led authorities to take further notice of reasons for the nursing shortage which led them to the problem of increased nursing working hours. The hospital authorities then reduced working hours and issue the notice to the HR team to hire new nurses to increase the patient’s safety.

**References**

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