

Clinical Outcomes of Chronic and Acute Diseases: A Retrospective Research Based on Medical Records

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Abstract: Chronic and acute diseases continue to be major contributors to global morbidity and mortality, affecting both biological health and social well-being. This research paper examines six documented patient cases involving chronic obstructive pulmonary disease (COPD), cardiac arrest, schizophrenia, stroke, chronic kidney disease and Parkinson's disease. The objective of the study is to analyse patient's outcomes and understand disease progression through both biological and social perspectives. The study explores how environmental exposure, aging, genetics and lifestyle influence disease development and survival outcomes. It evaluates how healthcare access, family support and medical intervention contribute to patient recovery and long-term management. Data were collected through documented medical histories, diagnostic reports and patient case records. Descriptive and diagnostic analyses revealed a recovery rate of 50%, a mortality rate of 16.6% and chronic morbidity in 33.3% of the cases. The findings demonstrate that health outcomes are shaped by the interaction of biological processes and social factors. The study emphasizes the importance of early diagnosis, community-based healthcare support and long-term disease management in improving patient survival and quality of life.

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I. INTRODUCTION

Chronic and Acute Diseases represent a significant burden on individuals, communities and healthcare systems. Chronic illnesses generally develop slowly and may persist throughout an individual's life, while acute diseases occur suddenly and often require immediate medical attention. Understanding disease outcomes requires examining both the biological mechanisms of disease and the social conditions in which patients live.

Human health is closely connected to evolutionary biology, environmental exposure and lifestyle factors. Diseases such as COPD, kidney disease and Parkinson's disease often reflect long-term physiological stress on the human body caused by aging, environmental toxins or genetic predisposition. The research therefore examines how human biology interacts with environmental and cultural conditions to influence disease patterns and survival outcomes.

Illness, on the other hand, is not only a medical condition but also a social experience that affects families, livelihoods and community functioning. Social workers play a critical role in supporting patients through counseling, rehabilitation services, healthcare access and social support networks. Chronic diseases particularly require long-term

care systems that address both medical treatment and psychosocial well-being.

This research paper analyses six documented cases to understand how biological and social factors influence patient outcomes. The cases represent a range of diseases affecting different body systems, including respiratory, cardiovascular, neurological, renal and psychiatric conditions. The study aims to explore how medical intervention, environmental factors, and social support contribute to recovery, mortality or long-term disability.

II. METHODOLOGY

➤ Research Design

This study employs a qualitative case study research design, which allows detailed examination of individual patient experiences and treatment outcomes. Case study methods are widely used in both health sciences and social sciences because they provide rich contextual information about how diseases develop and how patients respond to treatment. In this research, the case study design enables the analysis of biological, environmental and social factors influencing patient health outcomes.

➤ *Data Collection*

Data for the study were collected from six documented patient cases. Information was obtained through medical histories provided by patients or their family members, clinical documentation records maintained during treatment and diagnostic test reports including spirometry, electrocardiograms and imaging techniques such as CT and MRI scans. These records provided insight into disease diagnosis, treatment procedures and final patient outcomes. The collected information allowed researchers to analyze both clinical patterns and contextual factors influencing recovery or mortality.

➤ *Sample Population*

The study sample consists of six patients diagnosed with different diseases. These cases represent a variety of medical conditions affecting multiple organ systems, including respiratory, cardiovascular, neurological, renal, and psychiatric systems. Each patient case provides insight into how different diseases progress and how medical treatment influences survival outcomes.

➤ *Data Analysis*

The collected data were analysed using descriptive and diagnostic methods. Descriptive analysis was used to summarize patient outcomes and identify patterns across the cases. Diagnostic analysis focused on identifying relationships between risk factors, disease progression and treatment effectiveness. The analysis incorporated both qualitative observations and quantitative information, allowing the study to examine biological and social influences on health outcomes.

III. RESULTS

The analysis of the six patient cases revealed a recovery rate of fifty percent, with three patients recovering after medical treatment. One patient died due to complications related to chronic obstructive pulmonary disease, resulting in a mortality rate of approximately sixteen percent. Two patients survived but experienced long-term health complications, representing chronic morbidity. These findings demonstrate that survival outcomes vary depending on disease type, severity, and the availability of timely medical intervention.

The results also highlight how chronic diseases gradually affect human physiology and can lead to irreversible damage if not properly managed. For example, respiratory diseases progressively damage lung tissue, while neurological conditions affect brain function and motor control. Age-related factors also play an important role as several severe cases were observed among older individuals.

The research indicate that access to healthcare, family support and medical intervention significantly influence recovery outcomes. Patients who received prompt treatment and continued care were more likely to recover, whereas those with chronic conditions required long-term management and social support to maintain quality of life.

IV. CASE ANALYSIS

The case involving chronic obstructive pulmonary disease demonstrates the progressive nature of respiratory illness. Long-term exposure to irritants such as cigarette smoke or air pollution gradually damages lung tissues and reduces respiratory capacity. This case reflects the interaction between environmental exposure and human physiological vulnerability. It also highlights the need for preventive health education, smoking cessation programs, and community awareness about environmental health risks.

The cardiac arrest case illustrates the importance of rapid medical intervention in life-threatening emergencies. Cardiac arrest occurs when the heart suddenly stops pumping blood effectively, leading to immediate loss of consciousness and oxygen deprivation in vital organs. The patient recovered because emergency medical treatment was provided quickly. This case demonstrates how healthcare infrastructure and emergency response systems are crucial in improving survival outcomes.

The schizophrenia case reflects the complex relationship between mental health and social conditions. Although medical treatment can help manage symptoms, individuals with schizophrenia often require long-term psychological support, rehabilitation programs, and social integration services. Social workers play a critical role in assisting patients with community reintegration and improving their overall quality of life.

The stroke case illustrates the impact of hypertension on brain health. Long-term high blood pressure weakens blood vessels and increases the risk of hemorrhagic or ischemic strokes. Although the patient survived, partial paralysis occurred due to damage to brain tissue. This case highlights the importance of preventive healthcare, regular medical check-ups, and rehabilitation programs.

The chronic kidney disease case demonstrates how early diagnosis and treatment can improve patient outcomes. Kidney disease often develops gradually and may remain undetected until significant damage occurs. Medical treatment combined with lifestyle adjustments allowed the patient to recover.

The Parkinson's disease case represents a neurodegenerative condition characterized by the gradual loss of dopamine-producing neurons in the brain. Although the disease cannot be cured, medication and therapy can significantly improve symptoms and mobility, allowing patients to maintain independence and quality of life.

V. FINDINGS

The findings of this study demonstrate that health outcomes are influenced by both biological and social factors. Diseases reflect interactions between human biology, aging processes, environmental exposure and genetic predisposition. Chronic illnesses often develop due to long-term physiological stress on the body, while acute

conditions require immediate medical intervention to prevent fatal outcomes.

Disease management extends beyond medical treatment. Patients with chronic illnesses often require long-term emotional support, rehabilitation services, and access to healthcare resources. Social workers play an important role in connecting patients with community services, counseling programs, and healthcare assistance.

The study also highlights the importance of preventive healthcare strategies. Many of the diseases observed in the cases are associated with modifiable risk factors such as smoking, hypertension, and poor lifestyle habits. Public health programs that promote healthy living and early medical screening can significantly reduce the prevalence of chronic diseases.

VI. LIMITATIONS

The study has several limitations that should be acknowledged. The sample size is small, consisting of only six patient cases, which limits the ability to generalize the findings to larger populations. In addition, the data rely primarily on documented case records, which may not capture all social and environmental factors influencing patient health. Future research involving larger samples and longitudinal data would provide a more comprehensive understanding of disease outcomes.

VII. CONCLUSION

This research paper examined six patient case studies involving both chronic and acute diseases. The analysis revealed that patient outcomes are influenced by complex interactions between biological processes and social conditions. While acute conditions such as cardiac arrest can be successfully treated with rapid medical intervention, chronic diseases often require long-term management and social support systems.

From a biological anthropology perspective, the study highlights how environmental exposure, aging, and genetic factors influence disease progression. From a social work perspective, the research demonstrates the importance of healthcare access, community support, and rehabilitation services in improving patient outcomes. Integrating medical care with social support systems is therefore essential for promoting holistic health and improving the quality of life for individuals living with chronic illnesses.

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