



# A STUDY ON THE IDENTIFICATION OF CAUSES OF DELAY IN IN-PATIENT DISCHARGE AND INCREASE PATIENT SATISFACTION

1Shubham shukla, 2Mayur bonghe, 3Dr sushmita singh

1Student, 2Student, 3Guide

1Parul University,

2Parul University,

3Parul University

## ABSTRACT

The study's overarching objective is to identify the root causes of the inpatient discharge delay and implement solutions to those problems. When inpatients stay longer than expected in the hospital because of problems with discharge summaries, pharmacy delays, or other services, patient complaints tend to rise. The purpose of this study is to identify the root causes of the issue and provide solutions based on those factors. Hospital Discharge, Patient Happiness, and Allied Medical Staff.

Having to spend time in the hospital because of such a nuisance is undesirable. This study was designed to illuminate the many causes of delayed patient discharge. Medical problems, extended waiting periods for medical evaluation and diagnosis, and a failure to swiftly connect patients to health services are common causes of discharge delays. The purpose of this research is to examine the average durations of hospital stays for various patient demographics. The time it took for patients to leave the hospital after being released was recorded in an appendix. This study was conducted to identify the root causes of the lengthy discharge delays and provide solutions.

## PART- I

### GENERAL INFORMATION

A patient's post-discharge destination might range from home to a nursing home or rehabilitation centre. If the patient's condition has stabilized, then they may be discharged. The hospital release was delayed due to issues with nursing, the pharmacy, and transportation. Patients aren't delighted with their discharge because of this.

Hospitals must take action to reduce the prevalence of delayed release in order to increase their bed occupancy and decrease patient wait times. Long wait times leave patients feeling frustrated and irritated. Collaborative efforts across hospital units may shorten the time it takes to release patients. Information from the billing office, pharmacy, insurance, cash register, discharge summary, and the ward itself is continually recorded and monitored with the purpose of avoiding needless delays. This research looks at what causes patients to be released from hospitals, why they are released, and what may be done to improve treatment, patient happiness, and the hospital's reputation. Investigating the causes of long wait times for all patients, whether they have insurance or pay out of pocket, is a priority. One indication of quality that is evaluated in accordance with NABH requirements is the timeliness of patient discharges.

When a patient is discharged from the hospital, they are sent back to their home or to some other location. The decision to release a patient will be made by a consulting doctor. Patients are asked to kindly notify the ward secretary of their planned check-out times. The secretary must write the legislation into law. After receiving approval from the pharmacy, the billing consultant's ideas will be sent to the secretarial staff and the invoices will be ready for distribution. Patients are able to leave their rooms after their debts have been paid. Before leaving, patients may get their medication and discharge paperwork from the ward secretary.

The primary functions of a hospital are the emergency room and the medical ward, where patients stay while waiting to be treated. A hospital patient who does not need inpatient treatment is called a "outpatient." Patients that need prolonged hospitalization are called "inpatients," and they often remain there for the length of their care. Education for Lawyers in the Health Law Field (2017). Inpatient care may be broken down into three phases. You'll go through three stages: admission, treatment, and release. The complexity increases with the number of operations that must be completed before a patient may be released from the hospital.

If a patient has been hospitalized for an extended period of time but no longer requires medical attention, their doctor may decide to discharge them. Nakharar states that once a patient is granted a release from the hospital, they are free to go. As long as patients have access to all relevant medical summaries before to being released, "the discharge process offers stability for the patient," as stated by NABH. Once the consultant gives the go-ahead for the patient to leave, the discharge

procedure may officially commence and be considered complete once the patient has departed the clinical unit. Many hospitals have bottlenecks in their care delivery systems caused by the admission and discharge procedures (Davies & Macaulay). It's crucial for determining the efficacy of a treatment and the patient's level of satisfaction.

## **ABOUT THE COMPANY / INDUSTRY / SECTOR**

### **INDUSTRY PROFILE**

In India, healthcare is swiftly becoming into a significant economic driver and employer. Hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical supplies are all part of the healthcare industry. Significant improvements in India's healthcare infrastructure have been made in recent years as a result of increased governmental and private funding.

In India, there are separate public and private sectors of the healthcare business. Few public hospitals are found in larger cities; the bulk are spread out over rural regions (phis). Particularly in large cities and wealthy tier-i and tier-ii towns, private organizations often own and manage secondary, tertiary, and quaternary hospitals.

India's healthcare sector gains a lot from the wealth of highly qualified medical experts in the nation. In comparison to other Western and Asian nations, India's costs are extremely affordable. Surgery is far less expensive in India than it is in the US or Western Europe. More than 115 crore doses of the covid-19 vaccine have been delivered nationwide as of November 19, 2021.

### **Statistics about Market Size**

The healthcare industry is anticipated to increase from its 2012 level of 4.6 trillion rupees to 8.6 trillion rupees (about US\$ 133.44 billion) by 2022. The Indian government intends to spend 1.2% of GDP on healthcare in the fiscal year 2021. The frequency of new illnesses and growing middle-class wealth have both raised interest in health insurance. In the next years, there will probably be a rise in the demand for quickly accessible, affordably priced medical treatment, which should boost the number of people signing up for health insurance.

### **COMPANY PROFILE**

In FY21, health insurers brought in a whopping rs. 58,572.46 crore (US\$7.9 billion) in gross direct premium revenue, an increase of 13.3 percent annually. The health industry generates 29.5% of the country's gross written premiums. Recent occurrences. India's medical tourism market was worth \$2.89 billion in 2020, and experts predict that it would more than double to \$13.42 billion by 2026.

India tourism statistics at a glance 2020 reveals that 697,300 international patients travelled to India in FY2019 to get medical care. When compared to 46 other destinations, India ranks 10th on the Medical Tourism Association's Medical Tourism Index (MTI) for 2020–21. By FY22, the cost of India's healthcare system is predicted to rise to \$349.1 billion. More than \$10.6 billion will be spent on healthcare businesses on the internet by 2025. The Ministry of Industry and Trade reports that between April 2000 and June 2021, the pharmaceutical and medical products sector received a total of US\$18.12 billion in FDI. The following are examples of recent developments in India's healthcare sector.

As of 11/18/2021, 80,136 Ayushman Bharat-Health and Wellness Centres (ab-hawks) have been established in India. As part of the Central Government's "Digital India" initiative, a total of 638 e-hospitals have been set up throughout India as of November 18th, 2021. In November of 2021, Flipkart Group declared their intention to enter the healthcare industry with the launch of flipchart health+. As per the terms of the deal, Flipkart would acquire a controlling interest in substandard marketplace limited, the company behind sastasundar.com, an e-commerce pharmacy and digital healthcare platform.

In order to increase revenue from India to 40% of total sales by 2025, Aster dm healthcare said in November 2021 that it will spend Rs. 900 crore (US\$120.97 million) over the following three years. As of September 21, 2021, 12 million teleconsultations had been completed thanks to the Sanjeev telemedicine initiative, which had been launched by the health ministry. The coronavirus vaccine developed by biological e. Ltd. is expected to hit the market in October of 2021, as announced in September of that year.

Phase 3 trials of the Russian-made covid-19 vaccine Sputnik lite were given permission to begin in India in September 2021/22. In September of 2021, Bharat Biotech and the Washington University School of Medicine in St. Louis will launch phase 2 trials of their intranasal vaccine against covid-19 at Prakhar Hospital in Kanpur.

In September of 2021, Biocon Biologics Limited (a Biocon subsidiary) and Serum Institute Life Sciences (a Serum Institute of India subsidiary) entered into a strategic alliance. (sei). The partnership is expected to bolster India's standing as a world powerhouse in the biotech and pharma industries. In July of 2021, other nations will have free access to Cowing, India's platform for delivering the covid-19 immunization. Almost seventy-six countries have shown an interest in adopting the cowing platform to coordinate their worldwide covid-19 immunization programs. In July of 2021, Biological Corp. Ltd. will begin phase-iii trials of their corbeau vaccine. The plan is to have 300 million tablets delivered to the Indian government by the end of 2021, after which the corporation would apply for a "emergency usage license."

To begin late-stage clinical trials of their protein-based vaccines in July 2021, the Indian government authorized Sanofi and GSK. The "national medical & wellness tourism board" was founded by the Ministry of Tourism in India in July 2021 to market medical and wellness vacations to foreigners. The Union Cabinet decided to keep funding the national Aayush mission till 2026 in July of 2021. Indian folk medicine research and development falls within the purview of this goal.

The Union Cabinet approved the MOU on medical and health cooperation between India and Denmark in July of that year. The public health of the two nations' citizens will improve because to the agreement's focus on collaboration and the sharing of health-related technologies. Strategically investing in trocar technologies (a diagnostics chain) in June 2021 allowed Pharmacy Corporation of America (Pharmacy) to expand and improve its testing capabilities.

In June of 2021, AstraZeneca India and doon technologies, a health start-up located in Bengaluru, inked a memorandum of understanding (moue) to install individual electronic medical record (ear) systems in one thousand Indian clinics.

In April 2021, Tata Digital was poised to acquire a controlling stake in 1mg, an e-commerce pharmacy start-up in which it had invested 100 crore (\$13.45 million). In April 2021, scientists from many institutions published their findings that the drug Aayush 64 was beneficial in treating mild to moderate cases of covid-19. This research was supported by grants from the Council of Scientific and Industrial Research and the Ministry of Aayush. By March of 2021/22, India had already exported more vaccinations abroad than it had given to its own citizens; 60 million doses had been despatched to 76 other countries, while only 52 million had been supplied to Indians. Treatments for covid-19, such as the vaccine used to prevent it, have seen an increase in exports. For instance, in March 2021, shipments of Remdesivir jumped from \$5.75 million in February 2021 to \$14.8 million.

## HISTORY

Union Minister of Health Harsh Vardhan reported to the Rajya Sabha in March 2021 that 157 healthcare facilities were at different stages of implementation around the country. There will be a total of 58 schools involved in the pilot, followed by 24 in phase two and 75 in phase three. In the wake of the covid-19 outbreak, demand for health insurance products skyrocketed, leading to a 32.25 percent year-on-year increase in gross written premiums for health insurance businesses in the non-life insurance market in June 2021, to Rs. 30,192.30 crore (US\$ 4.04 billion). The Sputnik v vaccine will be manufactured in India by Virchow Biotech of Hyderabad and the Russian Direct Investment Fund (RDIF) beginning in March 2021.

## Interventions from the government

A few of the most important things the Indian government has done to advance the medical field are as follows: By November of 2021, the governments of India and Meghalaya had agreed on a

\$40 million health program with the World Bank. When this is done, the state will be better prepared to deal with public health crises like the present covid-19 pandemic, and people will have easier access to medical treatment.

In either November or December of 2021, India may reintroduce doses of the covid-19 vaccine to the COVAX global vaccine-sharing network. WHO, a co-leader of COVAX, has been pressuring India to protect covax supply since the country sent out 4 million doses to its neighbours and allies in October 2021. At the September 2021 global covid-19 summit, Indian Prime Minister Narendra Modi said that his country will begin producing vaccines for 95 nations and the UN Peacekeeping Force. When asked further, he said that as production capacities increased, India will become a supplier of covid-19 vaccines to other countries.

In September of that year, Prime Minister Narendra Mod launched the Ayushman Bharat Digital Mission. The program's ultimate objective is to network the many hospital-based digital health services across the nation. Everyone will have their own unique digital health id, which will ensure the security of their personal health records in the online world. In September of 2021, the government of Telangana will begin a program called "medicine from the sky," in conjunction with the World Economic Forum, nit agog, and Healthnet globally. Those affiliated with the Apollo Program (hospitals). This study will pave the way for the use of drones to transport essential medications and immunizations to neglected areas of the country.

An Indian government official has said that Rs. 500 billion (about US\$ 6.8 billion) in credit incentives would be implemented to improve healthcare facilities throughout the nation. Companies might get government-guaranteed loans to expand hospital capacity or buy medical equipment, therefore improving access to healthcare for underserved populations and bolstering health infrastructure associated to covid-19. In February of 2020, a memorandum of understanding (mop) was signed between the Indian Council for Medical Research (ICMR) and the Department of Medical Research (DMR), Ministry of Health and Sports of Myanmar. India and Myanmar inked an MOU to strengthen their medical research partnership.

The Union Ministry of Health and Family Welfare and UNICEF hosted a workshop in the northeaster states in June 2021 to inform media professionals and health correspondents about the current covid-19 situation in India, the significance of dispelling myths about covid-19 vaccines and vaccination, and the significance of covid-19 appropriate behaviour (cab). In June of 2021, Bolo India, a domestic social live streaming platform, teamed with the Ministry of Aayush to spread information about the benefits of traditional Indian medicine and treatment modalities including yoga, Ayurveda, and siddha. Within a year's time, we will have helped over 10 million individuals because to our partnership.

West Bengal intended to build six new medical schools in the state in June 2021, while Uttar Pradesh allowed the formation of nine new medical colleges, Telangana approved the development

of six new medical colleges, and Punjab proclaimed the establishment of four new medical colleges. Uttar Pradesh's government announced in June 2021 that it will implement an automated pharmaceutical delivery system in an effort to increase the availability of primary care services and build more healthcare facilities across the state. The state health department in Uttar Pradesh is responsible for designing and deploying "health ATMs," or walk-in medical kiosks with pre-packaged medical equipment for diagnostic services in specialties including cardiology, neurology, pulmonary medicine, and gynaecology.

### **Opened in 1947, Baptist Memorial Hospital eventually shut down in 1976.**

In 1947, after receiving a letter from Jacksonville, Florida community leaders expressing concern about a substantial scarcity of hospital beds, the executive committee of the Southern Baptist Convention in Nashville, Tennessee created Baptist Memorial Hospital. According to a telegram sent to the pastor of Southside Baptist Church in Jacksonville, the convention has given its blessing to the construction of a new faith-based community hospital. A total of two million dollars have been aside to expand the hospital as required by the Convention. A total of \$1.2 million was raised, \$1 million from the government and \$200,000 from the Hospital Board. More than a million dollars in local funding went into building Baptist Memorial Hospital; in 1951, the Wolfson Family Foundation donated \$250,000 to help build a children's hospital with 50 beds within the main hospital.

After opening in 1956 with 125 rooms and 35 beds as Wolfson Memorial Children's Hospital, Baptist Memorial eventually became accredited by the Joint Commission on Accreditation of Hospitals in Chicago.

To get financial support from government health insurance plans like Medicare and Medicaid, a hospital must first through the accreditation process. An additional 28 beds were added to the medical-surgical unit on the fifth floor of Baptist Memorial in 1957, bringing the total number of available beds at the hospital to 202. Baptist Memorial converted 14 of its formerly semi-private rooms into private rooms to meet the growing demand for such services. By the year's end (1957), Baptist Memorial's capacity had grown to include 268 beds and 300 medical staff members.

### **Expansion of facilities and exploration of untapped treatment areas are also in the works.**

The Charles Judson Williams Cancer Treatment Centre at Baptist Memorial Hospital was opened to the public on March 2, 1972. Mr. Williams was a prominent Jacksonville businessman and philanthropist who passed away in 1956, and his name was chosen to be commemorated at the cancer centre in his honour. His wife, Edna Sproul Williams, was an advocate for upgrading the cancer centre with state-of-the-art equipment. After a rebranding effort in 1972, Jacksonville Children's Hospital now stands on the former Wolfson Memorial Hospital campus.

The Wolfson Family Medical Tower opened a year later, bringing the total number of beds at Baptist hospitals in Jacksonville to 579. In 1974, Baptist Memorial expanded its range of medical offerings

to include a Gastroenterology Lab for the treatment of problems of the digestive tract. In 1973, the Women's Board at the Children's Hospital of Jacksonville was established. Women's boards help hospitals thanks to the dedication of its volunteer members.

**Its doors originally opened in 1977, and the Baptist Medical Center remained open until 2002.**

Baptist Memorial Hospital became Baptist Medical Center on September 13, 1977. As reported by the Florida Times-Union, at the time, the Medical Centre's executive director, Richard H. Malone, said that the hospital had expanded to eight buildings and now had the technology, facilities, and modalities required to care for more than 20,000 patients annually.

After establishing a specialized oncology department in 1977, Baptist Medical Centre became a leading centre for treating cancer and its repercussions. Both the surgical division's new leader, Dr. Curtis M. Phillips, and the medical division's new chief, Dr. Neil Abramson, are well qualified for their new roles. A wide range of oncology services, from diagnosis through surgery, radiation therapy, and chemotherapy, are available at Baptist hospitals.

**Life Flight, an air ambulance service, has been provided to patients of Baptist Medical Centre since 1980.**

Dr. Doris Carson was the first female medical director in the area when she was designated president of the medical staff at Baptist Medical Centre in 1981. As the first hospital in the United States to deploy a \$3 million dual-fuelled energy system to power its four hospital buildings, BMC made history in 1982. Its turbines could switch between natural gas and oil without reducing output.

Former Florida governor Bob Graham turned on the new power plant at BMC on September 9. In 1985, the Baptist Health Foundation was set up to help with fundraising efforts. Baptist Health Foundation was formerly called the Foundation for Healthcare Inc. The BMC Pavilion expansion project got underway in January 1985, when the BMC Development Council and BMC Development Fund set out to raise \$7 million. On June 30, 1985, construction was finished on the 17-story BMC Pavilion.

**When the Baptist Health System Foundation Inc. was established in 1992, the name was altered.**

In September of 1991, Baptist Health opened its doors to the public as Baptist Regional Cancer Institute. When Nassau County sold Nassau General Hospital (NGH) in 1994, Baptist Health bought it. The NGH Board of Trustees decided to sell the hospital to Baptist Health, but in order to do so, they needed the approval of the Florida legislature since the hospital was owned by the county. The institution is owned by BHS, thus it is administered by a board of directors made up of both BHS executives and prominent members of the local community.

In 1995, Baptist Medical Center and St. Vincent's Health System merged to become what is now known as Baptist St. Vincent's Health System. In March of 2000, the two medical facilities



announced that they will begin operating separately. Since its inception in 2003, Baptist Health has been an integral element of the Baptist Health family. The first neurosurgical clinic in Florida, Lyerly Neurosurgery, was founded in 1934; in 2006, it joined with Baptist Health to become Baptist Lyerly Neurosurgery, which specializes in operations involving the brain, spine, and nervous system. The Baptist Health Baptist Neurology Group also began operations that year (2010). Baptist Health's Primary Stroke Care Certification program was the first in the nation to be awarded certification in neurological treatment by the Joint Commission on Certification of Healthcare Organizations in 2007. These funds were allotted to the Stroke Centers at Jacksonville's Baptist Medical Center Downtown and Baptist Medical Center South.

### **A Neurologist at Baptist Health Lyerly**

In 2007, Baptist Health's five hospitals were honoured with their first "Magnet" award for excellence in nursing. The Baptist Health System was recognized as a Magnet employer in 2012 and again in 2017. The Magnet designation was granted by the American Nurses Credentialing Center (ANCC), which is a branch of the American Nurses Association. In 2012, Jacksonville Heart Group and Southern Heart Group merged into a single Baptist Health affiliate to become Baptist Heart Specialists, a full-service cardiology clinic.

In 2015, electrophysiologists at Baptist Heart Specialists became the first in Florida to install the world's smallest wireless pacemaker. In 2013, Baptist Health established its first ambulatory campus, Baptist Clay, which has a paediatric and adult emergency room with 16 beds and a medical office facility. Following the completion of Baptist Town Center in April 2016, Baptist Health built its third satellite emergency hospital, Baptist North, and its second ambulatory campus, Baptist North, in September 2016. Having opened in the month of November this year, Baptist Oakleaf is the fourth satellite emergency hospital for Baptist Health.

On April 17th, 2015, a cooperation cancer treatment facility between M.D. Baptist Anderson Baptist Health and The University of Texas MD Anderson Cancer Facility was announced.

A new nine-story addition to the Baptist MD Anderson Cancer Center in Jacksonville was completed in the autumn of 2018. With two years and \$184 million later, the 330,000-square-foot building has introduced the MD Anderson Cancer Center paradigm of cancer treatment to Northeast Florida.

Because of the newly available avenue, people in Jacksonville have been invited to take part in clinical trials being conducted at MD Anderson. Having convenient access to cutting-edge cancer therapies close to home, as in the Jacksonville region, is more important now that new medicines are being found at an exponential rate. Baptist Health's Baptist Jacksonville Stroke & Cerebrovascular Center first opened its doors in 2015. It has been accredited as a Comprehensive Stroke Center by the Joint Commission and the American Heart Association/American Stroke Association. Former CEO Hugh Greene will leave his post on July 1, 2019, after serving for 20 years. With effect from July 1, 2019, Brett McClung will serve as CEO.

## Hospitals

### **Jacksonville, Florida is home to Baptist Medical Center of Jacksonville.**

The 498-bed Baptist Medical Center Jacksonville is part of a massive medical complex that also includes the Wolfson Children's Hospital and the Baptist MD Anderson Cancer Center, all of which are situated on the banks of the St. Johns River in Downtown Jacksonville. In the early 1990s, Baptist Medical Center Downtown became Baptist Medical Center Jacksonville.

Critical care medicine, bloodless surgery, pulmonary services (including an adult/paediatric sleep disorder clinic), emergency care (including Life Flight air ambulance, a Children's Emergency Center, and hyperbaric medicine), and pulmonary services (including an adult/paediatric sleep disorder clinic) are all available.



## OVERVIEW OF INDIAN MARKET

The situation is being ignored. The decreasing number of available hospital beds is exacerbated every time a patient is released. When patients are kept in hospitals for too long, everyone loses. As a result, both healthcare expenditures and rates of depression rise. Delaying a patient's discharge increases their risk of acquiring an infection while hospitalized (P Hendy et.al, 2012). Thus, a strategy to address this issue is necessary. Discharge must occur within the 180-minute time limit established by the National Accreditation Board for Hospitals and Health Care Organizations. Fortis Hospital Gurgaon has set its target deadline for discharging patients at 90 minutes.

The hospital's bed shortfall has impacted several departments because of these postponed discharges. Both demand and available beds might be influenced by referrals from other clinics and emergency admissions. In light of the findings of the hospital's statistics department, the healthcare budget will need to be reevaluated.

In addition to the financial and health costs, patients may be exposed to a higher risk of nosocomial infections and diseases when their discharges are delayed.

To ensure that patients at a tertiary referral hospital have the best possible experience and get the best possible care, the purpose of this research was to determine what factors lead to discharge delays. Ramadan is the best time of year to conduct this study since it is when the vast majority of pilgrims go to Makkah.

### Components and Techniques

Our inquiry took place in a way that honored the patient's right to confidentiality while also upholding his or her autonomy, dignity, and fair treatment. Before collecting any personally identifying information, we made sure to get permission from everyone involved in the study, both orally and in writing.

### The survey replies should be coded such that their contents remain hidden.

The hospital's Research Center was where they kept track of patients' phone numbers, and only those on the research team had access to them.

On January 20, 2016, authorization to conduct the investigation was given by the hospital's IRB. The primary goal of this study was to determine how satisfied patients were after being released from a tertiary referral hospital in Makkah, Saudi Arabia. Patients being discharged from eight different hospital units were interviewed for cross-sectional research. Individuals in the sample ranged from male to female, Saudi to non-Saudi, and from June 7th to June 22nd, 2015 in terms of their date of release. The interviews were scheduled during the holy month of Ramadan, when Muslims from all over the globe flock to Makkah. Non-verbal patients, those treated in the Outpatient Department on weekends, and those who were hospitalized on Fridays and Saturdays were not

included. General surgery, internal medicine, neurosurgery, oncology, cardiovascular surgery, endoscopy, outpatient care, critical care, and hematology were all included in the studies.

Three distinct parts made up the survey's questions. Section A of the release paperwork prompted the patient to fill out some basic demographic information before they were really released. The purpose of Part B was to identify the causes of any discharge problems. The survey was translated into Arabic by a professional and back into English for verification. A survey in English was made available to anyone who do not speak Arabic. The research used to write this section was adapted.

project's early study used criteria based on a modified version of Sulker's. After the patient was discharged, a phone interview was conducted to fill up this portion. The last section asked participants to rate their satisfaction with the treatment they got and provide some logistical information. The National Hospital Discharge Survey conducted by the CDC used this as a standard in 2006. Patients in Section who were questioned by phone after being released from the hospital were asked just questions about their hospital stay and their thoughts and opinions on the care they received.

There was a two-day pilot study prior to the actual test to establish how many people should be included in the final tally. In order to verify the questionnaire's reliability, 22 samples were gathered over the course of two days from across five distinct departments. The average time it took for someone to complete the survey was five minutes. It was agreed that the samples from the pilot research would not be included in the final tally.

The system and personnel would decide which patients will be released each morning. Patients who were about to be released were polled by researchers after they had obtained permission; patients who were able to do so filled out the questionnaire on their own to reduce the possibility of bias. The survey questions were multiple-choice, so the data collected could be quickly tallied and analyzed.

## GROWTH OF THE COMPANY / INDUSTRY / SECTOR

We were able to start the discharge procedure as soon as the doctors signed off on the discharge order, and the phone interview took place just before the patient was discharged. The delay in being freed was assumed to be longer because of the time difference. Discharge times for patients are consistently cited as a major source of frustration for medical staff across the world. Patients who have been given the green light to go home by their physicians but are unable to do so for one of three reasons are deemed to be in continuous hospitalization. Discharge delays cost the NHS in England almost £100 million per year<sup>5</sup>, adding an extra 1.2 million bed-days to the total amount of time patients spent in hospitals.

decelerated from the previous year, 2013, to the new year, 2014, a decline. Between eight percent and ten percent of acute care beds were occupied by patients who arrived late, according to hospitals. Hospitals must foster an environment of remarkable cooperation and promote collaboration between health and social care staff if they are to effectively address the systemic problem of delayed release. Managers and policymakers need a deeper understanding of how delayed discharges impact patients and healthcare workers in order to make educated decisions. It is the patient, their family, the doctor, the hospital, and the healthcare system as a whole who must pay for the costs associated with a delayed discharge. This research is a part of a larger project that aims to evaluate the costs and benefits of delayed discharge from the perspectives of patients, doctors, and hospitals.

This research aims to evaluate the potential costs of delayed discharge, as well as to quantify the influence of delayed discharge on health outcomes, explore the impact on patients, health professionals, and provider organizations. The research in OECD countries<sup>9</sup> examining the causes and consequences of delayed discharge comes from countries with a comparable level of economic growth.

### Information discovery methods and tools

Six biological databases (listed below) were searched in February 2016 for studies conducted between the years 2000 and 2016. Articles published after the year 2000 were excluded from the search in order to ensure that the results are applicable to modern healthcare systems. Medline, Embase, CINAHL, PsycINFO, HMIC (Health Management Information Consortium), and NHS EED all need specific search techniques. At first, the search was limited to Medline (through Ovid), but it was later expanded to include other databases and terms related to "delayed discharge," "timely discharge," "unnecessary days," and "inappropriate stays" (Appendix S1). In this case, we didn't only look in the usual places like systematic reviews and primary research articles; we also looked in grey literature. EPPI-Reviewer 4.12 was used to build a bibliographic database for reference tracking.

### Examined a Variety of Prospects

The personal experiences and viewpoints of the research participants on the consequences of a delayed discharge were also examined. Only research that fulfilled the following requirements was considered for publication. Reducing treatment effectiveness and decreasing patient satisfaction are only two of the unfavorable health outcomes associated with discharge delays.

qualitative data from patients and healthcare professionals on how delays have affected their jobs and professional relationships; quantitative data from hospitals on the monetary and cultural implications of delays. indicators of success include measures of patient happiness, infection rates, mental health, mortality, readmissions, and functional status. Only research done in OECD countries and published in English after the year 2000 was evaluated.

Articles were excluded from the database search based on the following criteria: Due to the large range of medical and non-medical factors that could contribute to delays (such as the recurrence of mental health illnesses), studies concentrating on these areas are restricted in their capacity to reliably quantify delays owing to non-medical variables (such as maternity and child health or palliative care). 14-17 Since the reviewers were only interested in primary research, they didn't consider any book reviews or editorials.

### **The screening for suitability has been completed.**

The titles and abstracts of the references that were chosen for a secondary review were evaluated for eligibility, and then the complete texts were read to make sure they met the criteria for inclusion. Given the apparent discrepancies, a third reviewer was brought in to make a decision.

### **Checking the High Quality**

In order to determine how well-designed, the quantitative studies were, we used a tried-and-true approach for assessing the methodological quality of quantitative/observational research.

18 The questions were reworded to ensure they were still relevant and include topics such as the control group, confounders, sample, measurements, reliability, and application in a healthcare context.

The EPPI-Centre<sup>19,20</sup> weighed the "weight of evidence" (reliability and usefulness) when determining the value of qualitative studies (Appendix S2). Then, evaluations were made for each trial (low, medium, or high). Examining the research's sampling, data collection, analysis, and ultimate results helped establish its reliability. Due to the comprehensiveness and thoroughness of the research, as well as the significance of healthcare professionals' and patients'/careers' perspectives, positive results were found. This research relied on the Critique of Economic Evaluation Checklist and the excellent Guidance on Methodologies for Technology Evaluation<sup>22</sup>.

Admitting a patient into a medical facility for the purposes of diagnosis or treatment is referred to as "admission." Methods include keeping an eye on things, analyzing data, and providing care and rehabilitation. A patient is considered to be "discharged" if they are given permission to depart the

medical facility. Hospitals that treat many different types of medical conditions sometimes have to postpone discharging patients. Delays in patients' release from the hospital occur when their care takes longer than planned.



## ABOUT MAJOR COMPANIES IN THE INDUSTRY

### Method of discharging:

Discharging a patient entails a number of steps, including (but not limited to): A. notifying the consultant of the discharge; B. composing the discharge statement; C. returning any unused medications to the pharmacy; and D. receiving confirmation from the pharmacy that the medications have been returned. The Start of the Discharge Activation Process Your monthly credit card statement will soon arrive.

The healthcare industry in India has rapidly expanded to become a significant source of revenue and jobs. Hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment are just few of the many organizations and sectors that make up healthcare. Increases in both governmental and private spending have allowed for tremendous growth in India's healthcare infrastructure.

As the number of people in the middle class increases and the prevalence of new diseases increases, health insurance is becoming more widespread. Health insurance premiums have increased due to the rising expense of providing adequate medical care to a growing population, but this trend is expected to change in the years ahead. Insurance companies guaranteed direct premium income increased by 13.3 percent in FY21, reaching Rs. 58,572.46 crore (\$7.9 billion). Around 29.5% of all gross written premiums in the United States come from the health insurance sector.

### In that case, what is the latest and greatest?

The pharmaceutical and medical products sector attracted a total of \$17.99 billion in FDI between April 2000 and December 2020, as reported by the Department for the Promotion of Industry and Internal Trade. (FDI). (DPIIT). Recent initiatives in Indian healthcare include:

It is projected that 9 million teleconsultations would have been completed by August 2021 as part of the Sanjeev telemedicine effort, according to the Indian Ministry of Health. In July 2021/22, India plans to provide an open-source vaccination platform that any country may use. Efforts to coordinate national COVID-19 vaccination efforts across more than 70 countries have been indicated as possible uses for the Cowing platform.

Phase III trials of the Corbeau vaccine are expected to commence in July 2021, according Biological E. Ltd. By the end of August, the company expects to have submitted an application for a "Emergency Use License," and by the end of 2021, 300 million pills will have been delivered to the Indian government.

In July 2021/22, the Indian government gave the go ahead for late-stage clinical trials of a protein-based vaccine developed by Sanofi and GSK. To encourage medical and wellness tourism in India, the Ministry of Tourism established the "National Medical & Wellness Tourism Board" in July 2021.



In July of 2021, it was agreed to extend the government-sponsored National Aayush Mission, which is responsible for the development of traditional medicines in India, until 2026.

In order to increase collaboration between the two countries in the medical and health care sectors, the Union Cabinet of India adopted a memorandum of understanding with Denmark on July 20, 2021. Through this pact, the two countries will work together to advance healthcare infrastructure and provide better care for their citizens.

In order to expand and improve its testing services, Pharm Easy acquired the Thorofare network of diagnostic labs in June 2021. In June of 2021, AstraZeneca India and Doon Technologies, a health tech start-up located in Bengaluru, inked a memorandum of understanding (MoU) to deploy 1,000 clinics throughout India with individualized electronic medical record (EMR) systems.

More than six million (60 lakh) patient consultations have taken place via the Health Ministry's Sanjeev telemedicine initiative since its commencement in June 2021. In April of 2021, there were around 75,000 Ayushman Bharat-Health and Wellness Centers (AB-HWCs) open in India. In April 2021, Tata Digital loaned 1mg, an online pharmaceutical start-up, Rs. 100 crore (US\$13.45 million) and came perilously close to acquiring a controlling stake in the company.

In April of 2021, AYUSH 64 (a drug) was approved by the Ministry of Aayush and the Council of Scientific and Industrial Research to treat mild to moderate cases of COVID-19 infection. In March of 2021, India provided its own citizens with 52 million doses of vaccine while providing 60 million doses to 76 other countries. There has been an uptick in the export of vaccines and prescription drugs used to treat Covid-19. For example, March 2021 Remdesivir shipments increased from \$5.75 million to \$14.8 million.

## PRODUCT PROFILE

The phrase "delayed hospital discharge," also known as "alternative level of care" (ALC) or "delayed transfer of care" in Canada, is used to describe a situation in which a patient who has been given the green light to leave the hospital does not depart immediately for reasons unrelated to their health (eg, waiting for a long-term care bed to become available or to transfer home with services). Patients' levels of care and activities usually drop or stop altogether as they wait for their new place. Unfavorable patient and family experiences, increased healthcare expenses, functional decline, falls, 6 hospital-related adverse events (such as medication mistake or exposure to an infectious agent), death, 8, and negative patient flow are all possible outcomes of a delayed release.

Women over the age of 50 with physical or mental issues were found to be overrepresented among patients whose release was delayed in previous research. There is a high prevalence of patients with mental illnesses, neurological diseases, and/or many medical conditions, some of whom may display aggressive behaviour or rely on assistive technology.

There are a number of system-level factors that contribute to delayed discharges in addition to those at the patient level, including long wait lists for long-term care facilities, rehabilitation, or other post-acute care (such as home care), a lack of culturally and religiously diverse long-term care facilities, limited or absent hospital services on weekends, and organizational delays (eg, administrative delays, delayed assessments). Since various parts of the system are subject to different pressures and are working toward different ends, there is no need for them to coordinate with one another. Community-based institutions, in contrast to hospitals, may encourage patient independence, long-term quality of life improvements, and a pace that is agreeable to both patients and their families. Discharge delays and other barriers to patient flow may be caused by the financing models used by hospitals and healthcare systems. Finances may either encourage or discourage early discharge from the hospital, depending on how the healthcare system is set up in each nation.

Financial losses may accrue to patients, their families, healthcare providers, and the healthcare system as a whole due to the interplay of patient and system-level issues that contribute to delayed discharges. A recent meta-analysis estimated that the cost of keeping a patient in the hospital after they should have been released to be between C\$320 and C\$900 each day. Discharge delays are costly for the NHS in England, estimated at £820 million annually (about C1. billion).

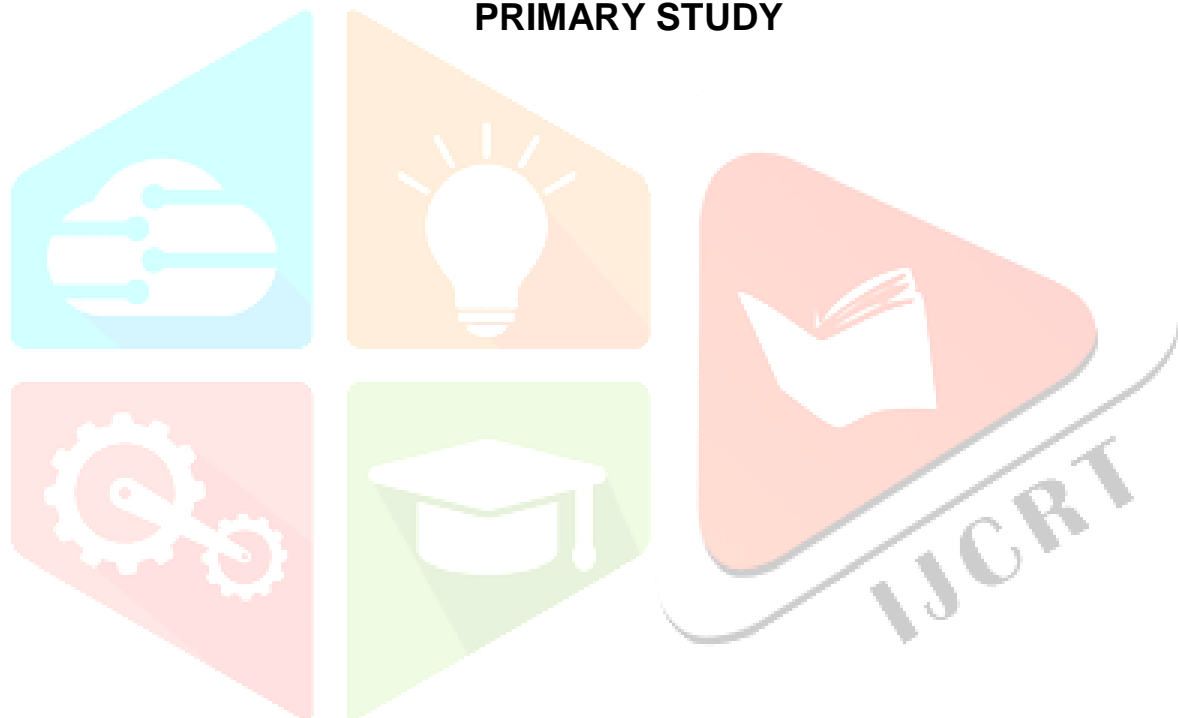
An additional C\$250,000 a day being spent on patients in three Ottawa, Ontario hospitals who are receiving care that they no longer need, according to a recent Canadian study. Costs for patients, their families, and the healthcare system as a whole may skyrocket if they have to wait longer than expected to be released from the hospital. Increased out-of-pocket expenses are only one of the many potential negative outcomes of a delay in care, along with increased stress for patients and their loved ones, diminished experiences, and worse quality of life.

It is crucial to identify current efforts and best practices targeted at addressing the complicated problem of delayed hospital discharges, which occurs all over the world. Studies on delayed

discharge have mostly focused on the causes and defining features of the people who experience it. Only a few initiatives have tried to tackle the widespread issue of delayed discharge. Therefore, this scoping review aimed to identify best practices for decreasing delayed hospital release by looking at both peer-reviewed and grey literature (material published via non-traditional channels) for initiatives that have been formed and/or assessed for delayed discharge. To accomplish so, a scoping study was conducted to catalogs the many sources of information on the topic, analyze the key features of delayed discharge efforts, and spot any knowledge gaps.



**PART-II**  
**PRIMARY STUDY**



## 4. INTRODUCTION OF THE STUDY

Delayed discharge is a big problem in the healthcare system all around the world. Time spent at the hospital after a patient has been discharged but cannot return home due to circumstances beyond their control. In 2013–2014, the National Health Service (NHS) in England lost an estimated £100 million owing to delayed discharge, which squandered 1.2 million bed-days.

One study found that 8-10% of acute hospital beds are being utilized inappropriately by patients who were kept waiting. Hospitals and the health and social care systems need to coordinate their efforts to address the problem of delayed discharge.

6-8 In order to make informed decisions about how to handle the ramifications of delays, managers and lawmakers need a detailed understanding of the impacts of delayed discharge on patients and the health-care employees caring for them. The monetary cost of delayed discharges must be calculated for hospitals, the health and social care system, patients, and carers. The effects and consequences of delayed discharge, as well as the experiences of patients, healthcare professionals, and hospitals, and the costs associated with delay, are assessed.

This review systematically assesses quantitative and qualitative studies to determine the impact of delayed release on health outcomes; conduct an in-depth analysis of the impact on patients, healthcare providers, and provider organizations; and calculate the potential costs associated with delay. For the sake of this review, only studies conducted in OECD countries<sup>9</sup> were included. This was done so that we could compare the rates of delayed discharge in health systems across nations with comparable levels of economic growth.

### 4.1 LITERATURE REVIEW

Discharge Delay Medical issues were the most common cause of delay, followed by delays in receiving treatment or getting a second opinion, and then in receiving diagnostic and allied health services. Patients over the age of 65, those who live alone, and those who speak a language other than English had higher average waits to discharge. Murchison RS claims that the hospital must adapt to the changing requirements of the community (2017). A hospital's monitoring equipment and ancillary tools may be coordinated via the use of an information system. Thanks to this technology, there are fewer patient transfers, faster access to patient information, and fewer patient transfers.

**Clerking D, Foes PJ, and Petry Farad.** developed a method for efficiently allocating beds (2018). Hospital beds are assigned to patients based on the characteristics of both the patient and the bed. Information gathered at the time of a patient's admission and as it is updated during their hospital stay will be stored for research purposes. Integrated with existing hospital IT infrastructure, this decision assistance solution will be invaluable. economy in resource management. In order to reduce costs, efficiency gains in resource use are required.

**It has been established by Cohen L. and Martorell C. (2019)** that a quick increase in the hospital population usually results in a corresponding increase in the number of hospital beds. The results of this research may thus be used to provide a report on hospital occupancy rates. The information has been used to generate graphical reports on bed availability. These graphs provide crucial information for the distribution of beds and assist in the identification of trends.

Community hospital admissions and discharges of elderly patients are accompanied with delays in care, as pointed out by Muhammad Umair Majeed and colleagues (2019). A cost-benefit analysis must be performed on the number of available beds in primary and secondary care, as well as in the provision of services for the elderly. The health and budgets of hospitals would benefit from a decrease in the number of acute hospital beds that are filled needlessly.

**Gheada R. et al. (2015)** found that timely discharge was the most important result of their study (time from discharge order to patient leaving the room). Secondary outcomes were the proportion of patients discharged before midday, the average duration of hospital stay (LOS), and the LOS of patients admitted via the emergency room (ED).

The quality of care provided by a hospital is impacted by how long it takes to finish the discharge process, as stated by research by Shobitha Sunil, Sarala K.S., and R. G. Shilpa (2019). According to the National Association of Accreditation of Hospitals and Health Systems (NAAHS), a patient should be released from the hospital in no more than 180 minutes (NABH). Delaying a patient's discharge is undesirable for both the patient and the hospital since it increases the demand for available beds.

**According to Stevens M, Reininga IH, Boss NA, and van Horn JR,** patient satisfaction is directly related to the quality of hospital care. Surprisingly, the rate of patient satisfaction has not dropped over the last three decades. In this study, the effects of evaluating patients' satisfaction at different periods were investigated.

Patient satisfaction was shown to be significantly related to age and health status, as reported by **Young, Gary J. JD et al. (2017)**. This study found that the size of the hospital made a significant difference in how satisfied patients were with their care.

**According to Aine Carroii and Maura Dowiing's (2017) review analysis,** hospital discharge is routine and uncomplicated. Thorough planning is required for both the patient's discharge and the continuity of treatment thereafter. Open lines of communication, a well-coordinated effort, the transmission of information, patient engagement, and a cooperative attitude among medical personnel are all necessary components of discharge planning. A successful discharge planning procedure should improve patients' satisfaction and quality of life. When everything goes according to plan, everyone involved—the patient, their family, the nurse, the doctor, the hospital, and the community services—feels less pressure and worry.

**According to Lixia Ou and Liis Young**, an efficient discharge planning procedure is essential due to the rising demand for acute care beds and the related focus on cost reduction. Delays in releasing patients from the hospital are a growing problem, keeping patients in the facility for longer than necessary. The quality of treatment and the efficiency of spending might suffer as a result. Bed shortages in Australia's major acute care hospitals are mostly attributable to patients being kept in hospitals longer than necessary.

**According to the study conducted by Andrew P Costa and Jeffry W Poss**, many healthcare executives are worried about acute hospital discharge delays. A delay is something that has been the focus of many provincial health care policies in Canada, according to the alternate level of care [ALC] framework. Acute care unit length of stay is affected by just a handful of variables (ALC). In this visit, we will investigate whether aspects of a patient's current environment, as well as their future transition to a nursing home, affect the length of their current hospital stay.

**According to Michael Emes, Smith, and Suzanne**, the discharge process at a big UK hospital was improved by the implementation of three process improvement initiatives between January 2013 and July 2014. These concepts were inspired by the findings of a study that used a soft systems approach to examining the discharge process. The first initiative cut down on administrative work, while the second made regular assessments of patients' conditions via the use of "multidisciplinary status reports" sent out each day.

**This research was written by Sarala K.S.2 and R G Shilpa.**

Date: October 3 (2016)., An important indicator of treatment quality is the time it takes to release a patient from the hospital. According to NABH, the whole process of discharging a patient should not take more than 180 minutes. As the last phase of their hospital stay, patients are more likely to remember their surgery when it comes time for them to be released. Therefore, when the demand for hospital beds increases, the discharge procedure may take longer, thereby increasing the number of depressed patients. At Bangalore, India's M.S. Ramaiah Hospital, researchers looked at how happy patients were with the hospital's discharge process. The total discharge time includes the time it took to write up the discharge report, create the discharge summary, finalize the billing, and have the patient leave the hospital.

**Dr. Nimoy Sarkar<sup>1</sup> and Dr. Tatin Nath<sup>1</sup>**

Tuesday, August 2 (2016)., The primary objective of the research is to identify the voids and provide remedies for reducing delays in hospital discharges. The primary causes for the delay in the discharge process have been searched out and expressed clearly. The investigation was carried out at Apollo Hospitals Grams Lane, Chennai, between June 15 and August 14, 2012.

**The Hon. Dr. Sn. Soundarya Raja, 2017**

The purpose of this research is to increase patient contentment by determining the factors that contribute to longer-than-expected hospital discharges. The purpose of this research is to identify the underlying factors that contribute to hospital discharge delays and give actionable recommendations for resolving them. Patients may feel disappointed if they have to wait longer than expected to be discharged from the hospital because of problems with the discharge summary, the pharmacy, the nurses, or the associated services. Finding the problem and offering solutions are goals of the study.

Iran surveyed its hospitals to see how long patients typically waited for discharge. **Researchers Sakagami, 2007** employed questionnaires, in-person interviews, and a check list to compile their findings. The information was analysed using SPSS and OR methods. Discharges were taking longer than planned, therefore a queuing model was used to figure out why. For all wards, the average wait time was 4.93 hours. According to the hospital staff's point of view, the discharge summaries of their patients were not completed on time, and there was no established protocol for those involved in the patients' discharge.

**According to JanitaVinayaKumari, (2019)**, a patient's recovery is complete after he or she has been released from the hospital. The billing process is more likely to stick in the patient's mind. A study was conducted to find out how long it typically takes for a patient to be released from a large academic medical center. In order to collect information for the study, registers were created and kept in the wards and the billing office. The sum amount of examined files was 2205. In general, patients hung around for 2 hours and 22 minutes after being told they may leave the hospital.

**Time motion study conducted by Swapnil AK et al. (2017)** revealed a lag in hospital discharges paid for by insurance, cash, and DAMA. We checked the total discharge time to the NABH guidelines and determined that it was within the allowable range. Insurance patients spent 278 minutes, cash patients 337 minutes, and DAMA patients 302 minutes. Patients were polled by the author, and results showed that 69.80% felt the discharge process took too long, with 61.5% believing it could be sped up.

**Discharge delays, as noted by Silva et al. (2014)**, are mostly attributable to processes, which may be remedied by appropriate interventions. As part of the study, the patient's hospital records from two different Teaching Hospitals' internal medicine units were analyzed. Researchers did a pilot study to determine how many participants to include in the main study. Discharge delays were over 50% at two hospitals (60%) and below 50% (50.7%) at a third. The main reasons of the hold up were waiting for test results, delaying clinical judgements, and delaying expert consultation.



## 4.2 BACKGROUND OF THE STUDY

The method in which patients are discharged from hospitals is a major contributor to these issues. Due to their complexity and uniqueness, healthcare organizations need careful management that takes into account the behaviors of each system.

When a patient is discharged from the hospital, they should not see this as the conclusion of their therapy, but rather as the beginning of the next phase.

During this time of transition, many groups work together to supply and coordinate healthcare services in order to ensure a seamless handoff of accountability.

The fact that every patient's experience with the healthcare system is unique adds another layer of complexity to clinical pathways. Longer hospital stays have been related to poor performance in emergency rooms.

Delayed discharges are common and affect many hospitals. For example, the United Kingdom has seen a disturbing increase in delayed discharges, which has been linked to increased mortality rates.

Multiple studies conducted in different EU member states corroborated similar results.

Policymakers and healthcare managers have started to pay more attention to issues related to inpatients' length of stay as a means to save costs and improve patient flow and management.

As a result of their evasive character, 'delays' are famously hard to eradicate.

More studies on this subject in different national settings reveal that there is a lack of clarity surrounding the concept of a "delayed discharge," which must be defined.

Without a common understanding of what a term means, it is hard to make fair comparisons across research conducted in different settings. The identification of the various signs of delayed discharges is crucial for the development of therapies and strategies.

The purpose of this scoping research is to address the hole created by the lack of a commonly accepted definition of delayed discharges. The purpose of this research is to use the generated literature to provide a clearer conceptual and operational definition of the term "delayed discharge."

We can only hope that this will act as a standard for future research projects and save us from having to continually rethink what the term "research" really means. This scoping investigation also intends to address a research need by comparing the incidence of delayed discharge by hospital ward location and the type of health system funding. These concerns have not been addressed by recent studies. The scoping research will also investigate the causes and outcomes of delayed discharges, as well as any interventions taken to lessen the prevalence or length of such delays in different healthcare systems throughout the world.



### 4.3 PROBLEM STATEMENT

“A STUDY ON THE IDENTIFICATION OF CAUSES OF DELAY IN IN-PATIENT DISCHARGE AND INCREASE PATIENT SATISFACTION”.



#### 4.4 OBJECTIVES OF THE STUDY

- The goal is to determine why the patient is staying in the hospital for so long.
- To speed up the process of discharging patients as much as possible.
- Evaluate how content patients are after being released from the hospital.
- The IDEAL Discharge Planning technique seeks to include patients and their loved ones in the process of returning home from the hospital in order to lessen the likelihood of negative outcomes and avoidable readmissions.
- After leaving the hospital, you should have full access to any aftercare services you may require, thanks to careful preparation throughout the discharge process.
- As an example, the community may help with things like providing medicine, bandages, food, or housework.

#### 4.5 HYPOTHESIS

H0: There is a significant different between Delay in-patient discharge and increase patient satisfaction

H1: There is no significant different between Delay in-patient discharge and increase patient satisfaction

$$\chi^2 = (60-35)^2 + (40-65)^2 = 27.473$$

65 3

$$P\text{-value} = 1 - p(\chi^2(1) \leq 27.473).$$

k	2	Number of categories
n	100	Sample size
$\chi^2$	27.472527	Chi square test statistic
DF	1	df = k-m-1 = 2-0-1 = 1
Phi effect ( $\Phi$ )	0.524142	$\Phi = \sqrt{\chi^2/n}$

Analysis of goodness of fit using the 2 test

the H0 hypothesis (1)

H0 is rejected due to the fact that the p-value is less than the significance level.

When comparing the data to the statistical model, there is a discrepancy.

(2) The P-value

The probability is  $1.593e-7$ , or 1 for  $p(x^2) = 1$ . If you reject a true H0, the likelihood of making a type I mistake is just  $1.593e-7$  (0.000016%).

The more the support for H1 the lower the p-value.

The numbers show that

The value of the test statistic 2 is 27.4725, and it is outside the 95% confidence interval, which is [- : 3.8415].

4, the magnitude of the effect

The reported phi effect size is rather substantial, at 0.52. This suggests that the gap between the observed data and the predicted data is considerable.

Equation for the regression line:  $= 2.4286 + 0.4857X$

APA Guidelines for Reporting a Linear Regression Analysis

$R^2 = .24$ ,  $F(1,2) = 0.62$ ,  $p = .514$ .

$\beta = .49$ ,  $p = .514$ .

## 5 RESEARCH METHODOLOGY

### METHODS FOR DATA COLLECTION & VARIABLES OF THE STUDY

Strategies for gathering information

Two Types of Data

#### Inputs From the Field

The questionnaire was the main tool for gathering information.

#### Using Only Complementary Sources

Books, journals, and magazines on the Internet provided a wealth of secondary sources.

#### Sampling

Convenience sampling is used as the method of data collection. Non-probabilistic methods like using a system that works for the researcher are what convenience sampling relies on.

#### The Size of the Sample

The number of persons who need be surveyed may be calculated with the use of big data. Despite the fact that big samples provide more trustworthy findings, small samples are sometimes used when time and resources are limited.

#### Analysis strategy

Graphs and charts provide a graphical representation of the data.

After applying the appropriate statistical methods to big data, conclusions will be drawn.

The study's findings and some recommendations for improving its usefulness will be presented.

## 5.1 RESEARCH DESIGN

Patient perspectives (e.g., perceived impact on physical health or patient experience), healthcare provider perspectives (e.g., effect on staff role and working relationships), hospital-level perspectives (e.g., costs of managing delays and effect on culture), and quantitative data (e.g., satisfaction, number of infections, mental health, mortality, morbidity, readmissions, and functioning) are all important.

**On top of that, we only evaluated studies conducted in OECD countries.**

Furthermore, the papers returned by the database search were whittled down using the following criteria: Research in the fields of mental health, maternity, child, and adolescent health, as well as palliative care, was excluded since it is more difficult to determine whether a delay is attributed to medical or non-medical factors in those fields.



## 5.2 SOURCES OF DATA

Primary Data

Secondary Data

### Primary Data

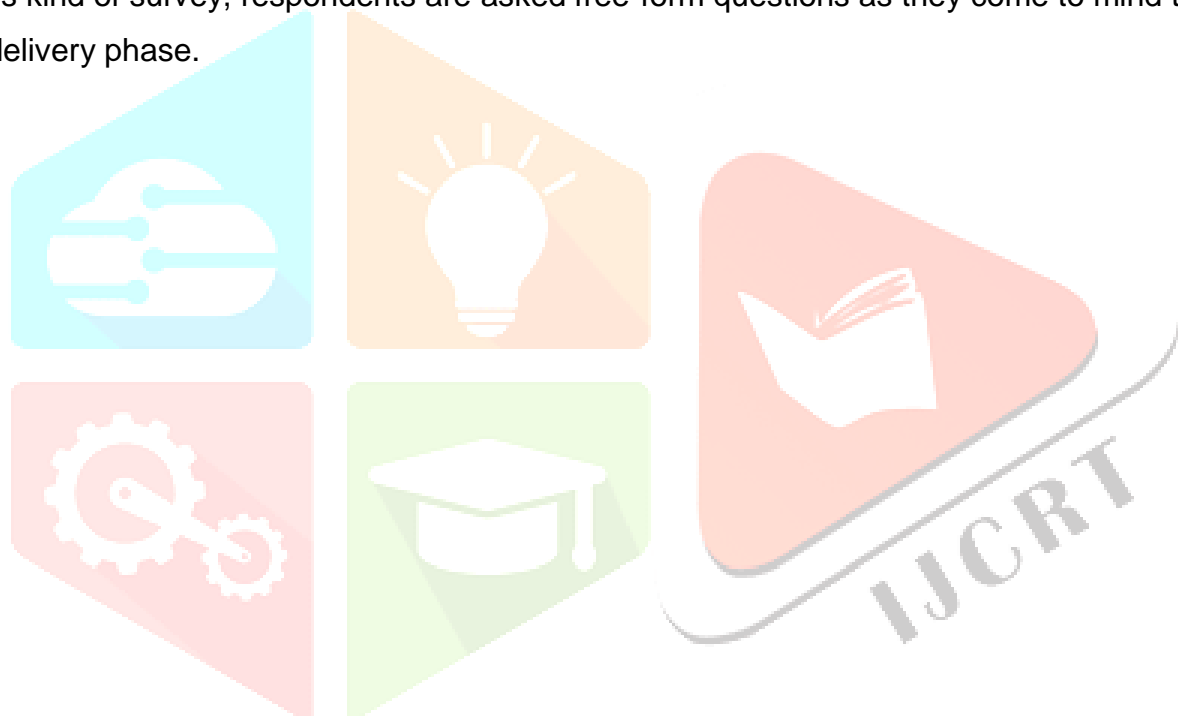
For the most part, data was gathered via the use of questionnaires.

### Secondary Data

Secondary resources such as print publications, online databases, and databases were used.

## 5.3 DATA COLLECTION METHOD

In this kind of survey, respondents are asked free-form questions as they come to mind throughout the delivery phase.





## 5.4 POPULATION

When a patient is ready to be released from the hospital but is unable to do so due to a lack of resources, such as the inability to pay for a seat in a care facility, this is known as a delayed discharge. As soon as possible, healthcare practitioners should schedule a discharge date and time. You must decide if the patient's discharge planning needs are simple (as is the case for around 80% of patients, according to the Pareto principle) or complex. The action of identifying and formulating a strategy to meet the needs of certain patients. The first issue is the paperwork involved. When a patient is admitted to a hospital, a lot of paperwork must be completed. This paperwork must be properly completed and submitted before a patient may be discharged from the hospital. Another cause for alarm is the lengthy wait time for test results.

## 5.5 SAMPLING METHOD

A total of 100 people were employed at random to collect data for this study. We utilized a random sampling technique to choose our samples.

## 5.6 SAMPLING FRAME

Questionnaires Method

## 5.7 DATA COLLECTION INSTRUMENT

Descriptive statistics

Methods for Data Sampling and Analysis Tools

No way!

In contrast, non-probability sampling involves selecting samples from a population in a way that is not statistically representative of the whole. Non-probability sampling may be used to collect data rapidly, efficiently, and economically since it does not need a full survey frame.

Examine the data:

Software packages for statistical analysis and computation: SPSS and Microsoft Excel

To rephrase the question, what exactly is SPSS?

Descriptive and bivariate statistics, numerical result predictions, and group identification predictions are only some of the statistical studies that may be generated using SPSS. Included are instruments for data cleansing, direct advertising, and data visualization. The software's principal user interface is a spreadsheet, making it easy to browse and change public data.

When it comes to analyzing data, SPSS is an alternative to Microsoft Excel. Not only do we provide summaries of the data in a descriptive format, but we also make predictions about the numerical results and classify the data accordingly. It includes processes like data translation, direct delivery

of unbranded food, and visualization software. The program often use a grid layout to display freely accessible information.

## HYPOTHESES TESTING AND METHODS

### Analysis of a Hypothesis Testing Strategy

In order to determine whether or not the null hypothesis is correct, researchers conduct statistical tests based on samples.

Data from representative samples of the population is the primary tool used by statisticians in testing theories.

When comparing two hypotheses, analysts always use a sample drawn at random from the whole population.

One example of a null hypothesis is the argument that the average return on investment for a given population is zero.

A new theory or null hypothesis is presented as a challenge to the existing dominant paradigm. The only correct answer is (1) or (2). One of the two choices is always the right one.

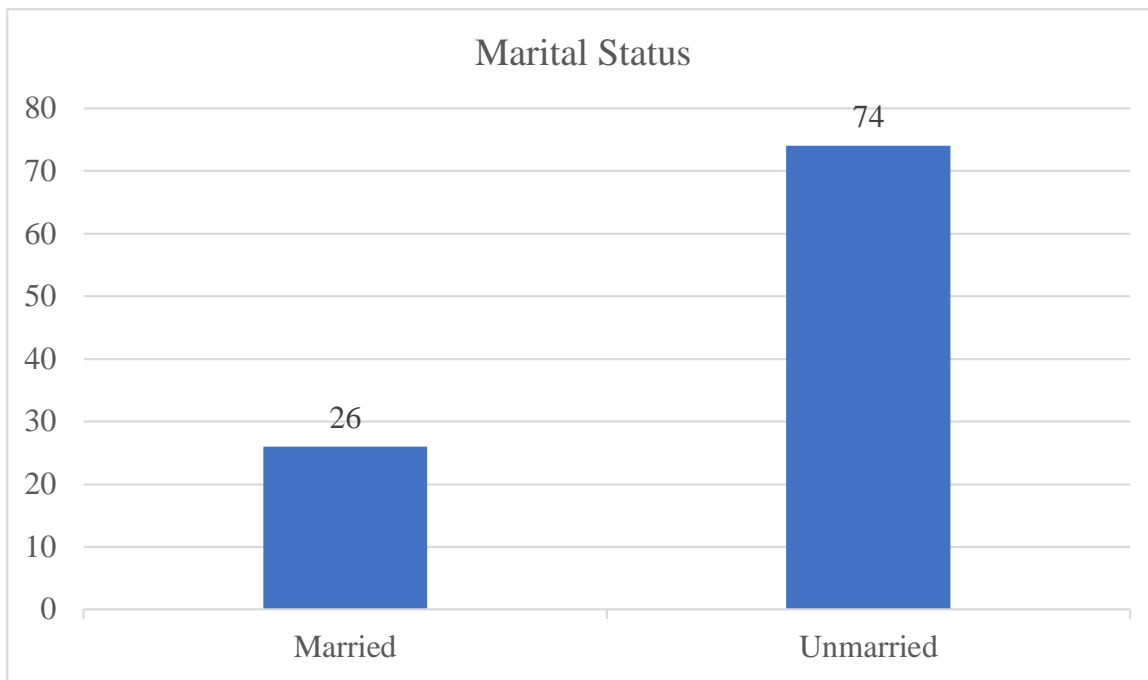
### Testing Hypothesis Methodology

- Analysts must first provide competing hypotheses when attempting to choose amongst numerous alternative explanations.
- Once all relevant data has been gathered, an analysis strategy outlining the criteria to be used to assess the findings of the data collection must be developed.
- The third stage involves putting your knowledge from the prior two phases into practice by carrying out the necessary processes and evaluating the sample data.
- The last stage is to draw conclusions from the data and determine whether the null hypothesis may be discarded.

## DATA ANALYSIS AND INTERPRETATION

Table No: 1: The Respondents' Categorization Based on Their Relationship Status

Marital Status	No of Respondents	Percentage
Married	26	26
Unmarried	74	74
Total	100	100

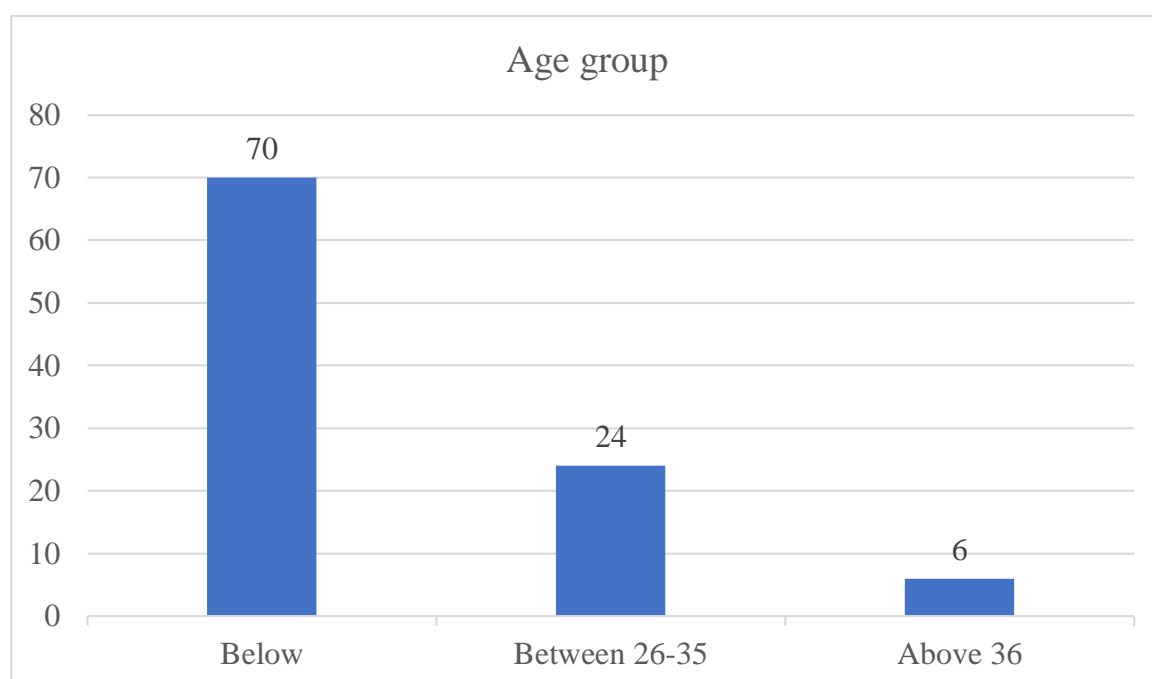


## Interpretation

The data shown in the table and graph show that 26% of respondents are married and 74% are single. Its interprets that Majority of the respondents found in the survey are unmarried

Table No: 2: Respondents' Age Grouping Classification

Age group	No of Respondents	Percentage
Below 25	35	70
Between 26-35	12	24
Above 36	3	6
Total	100	100



## Interpretation

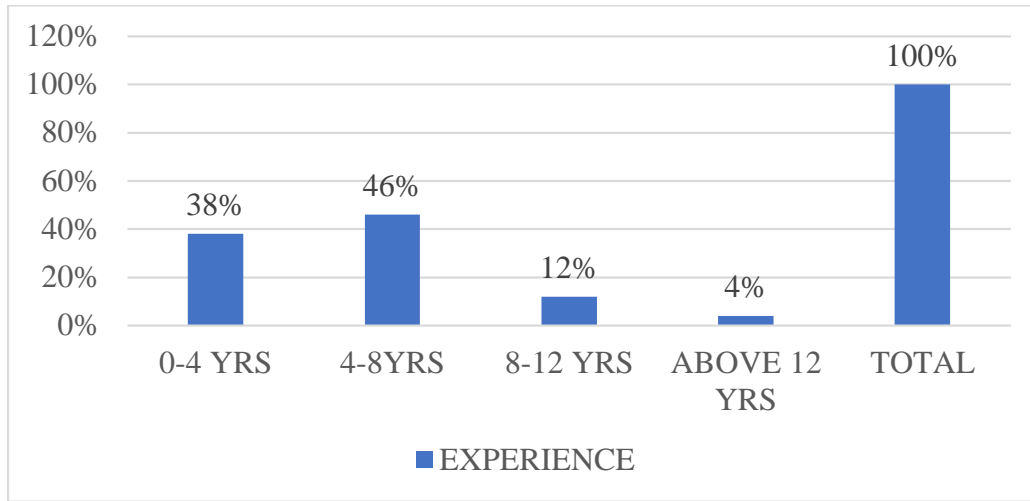
According to the data shown in the table and graphs above, 70% of the sample is comprised of individuals less than 25 years of age, while 24% are aged 26–35 and 6% are aged 36 and older.

The poll indicated that the vast majority of respondents were under the age of 25.

Table 3. Experience

Experience	No. of respondent	Percentage (%)
0-4	19	38%
4-8	23	46%

8-12	6	12%
Above 12	2	4%
Total	50	100%

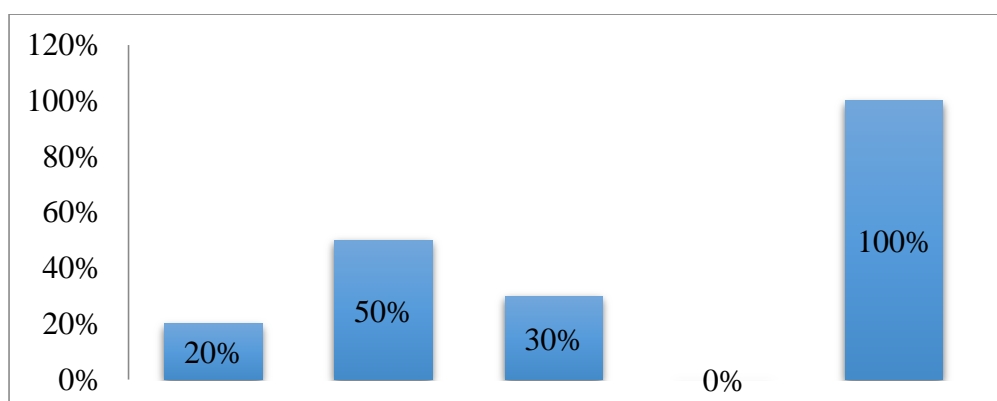


**Interpretation**

Approximately 38% of those with 0-4 years of experience and 46% of those with 4-8 years of experience have a significant impact on the structure of both these expert groups, as seen in the chart above.

**Table 4 Monthly salary**

Monthly salary	No. of respondent	Percentage (%)
Below 10000	10	20%
10000-20000	25	50%
20000-30000	15	30%
Above 30000	0	0%
Total	50	100%



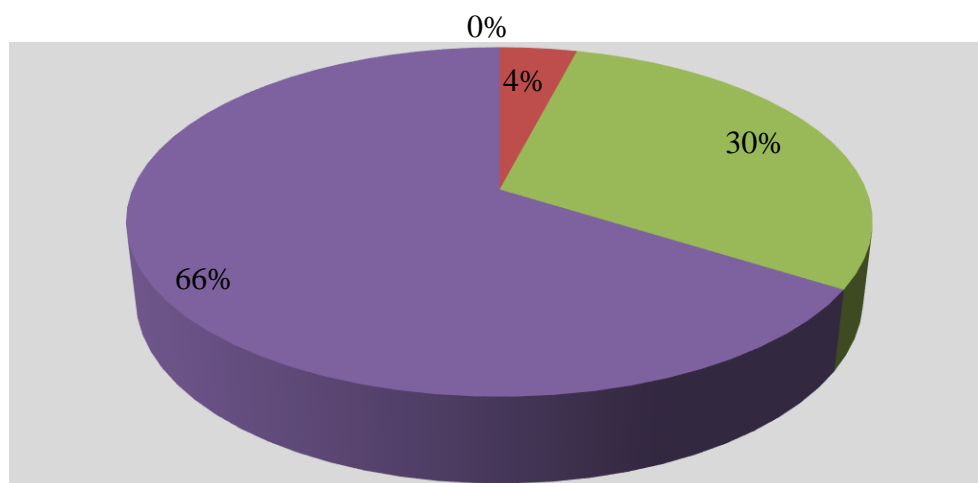
## Interpretation

The following graph illustrates that the middle 50% of the survey's revenue is distributed to those with annual salaries between \$10,000 and \$20,000, while the bottom 30% is distributed to those with annual salaries between \$20,000 and \$30,000. This demonstrates that financial incentives affect worker motivation.

Table 5 displays qualifying respondents

Qualification	Frequency	%
Diploma	2	4%
Degree	15	30%
Master Degree	33	66%
<b>Total</b>	<b>50</b>	<b>100%</b>

### Qualification

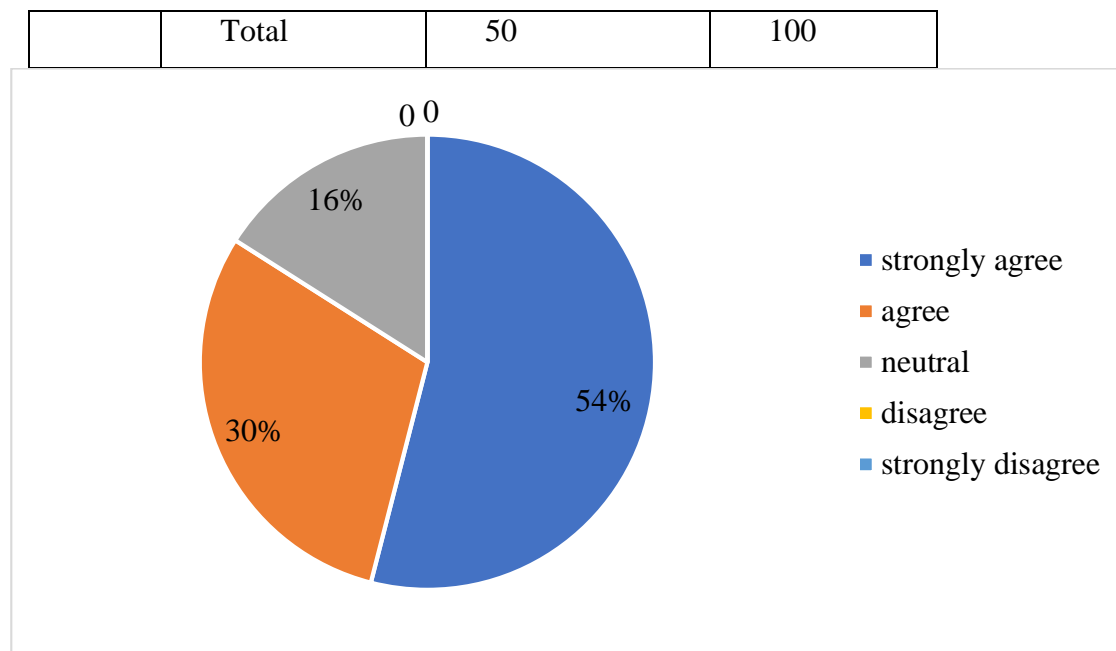


## Interpretation

The item required a high school diploma for 4% of respondents, a bachelor's degree for 30%, and a master's degree for the remaining 66%.

Table No.:6 According to you company policies are clearly explained

SI NO	Option	No of respondents	Percentage
1	Strongly agree	27	54%
2	Agree	15	30%
3	Neutral	8	16%
4	Disagree	0	0
5	Strongly disagree	0	0



#### Interpretation:

We find that 54% of respondents have a strong agreement with corporate policies, 30% have an agreement with company regulations, and 16% have no opinion either way. It shows that the company's rules have been explained to employees in detail. The majority of respondents agree that the company's rules are clearly presented. Policies are the restrictions that all responders provided by the organization must obey.

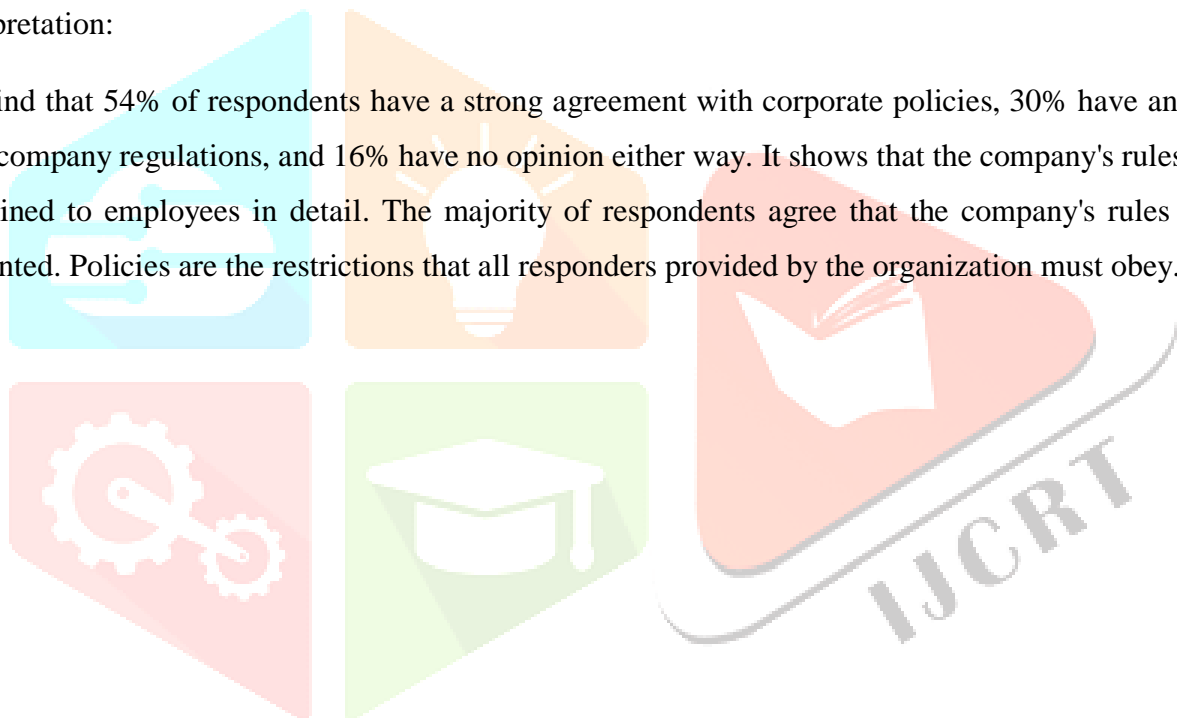
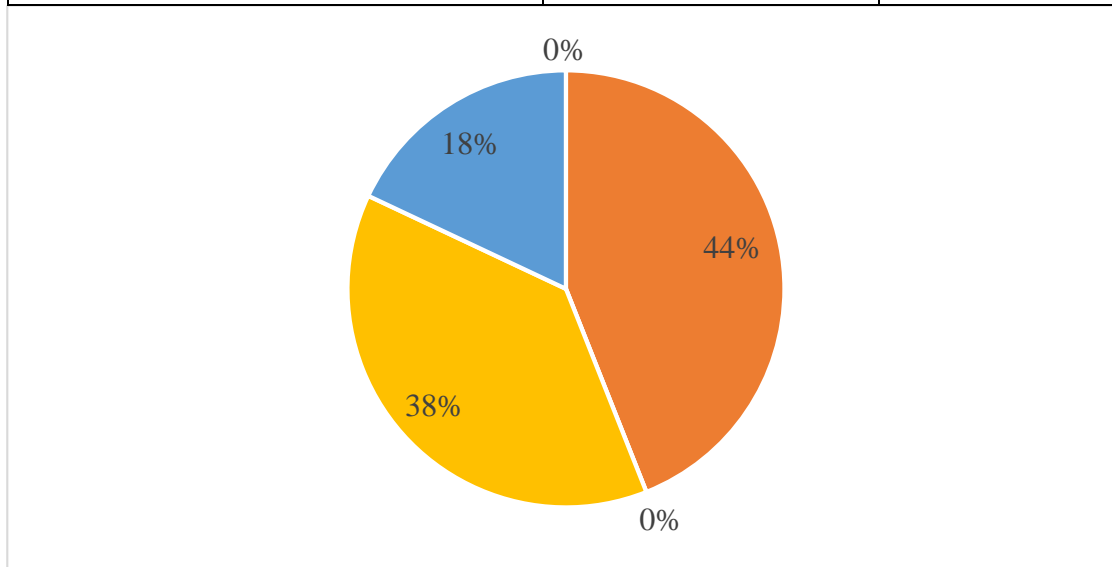


Table No: 7 Leave policy of Organization

Options	Frequency	%
SA	0	0%
A	22	44%
N	0	0%
DS	19	38%
S-DA	9	18%



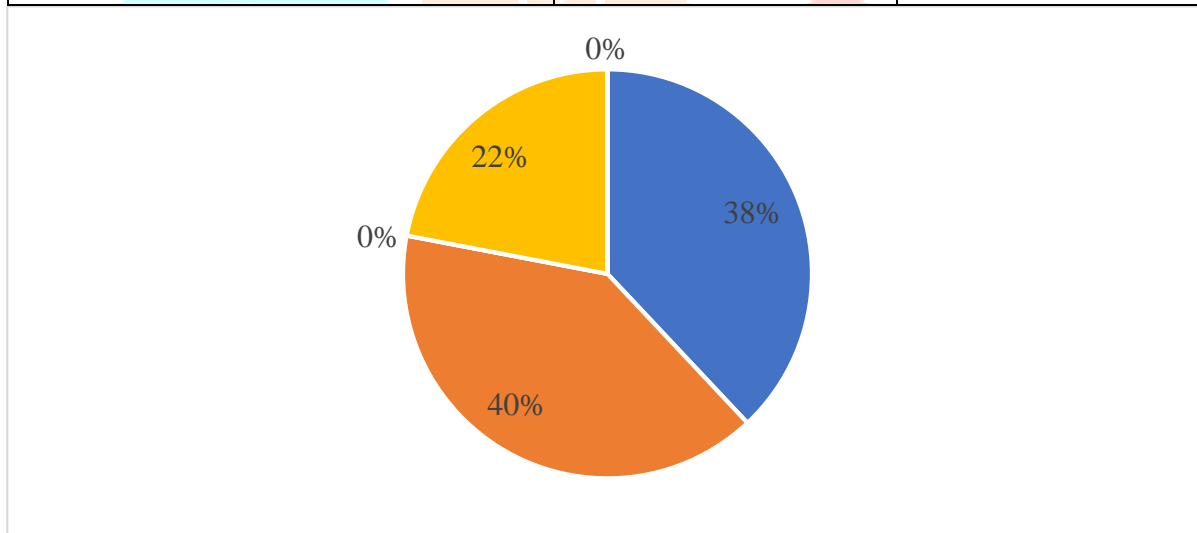
#### Interpretation

According to the data shown in the table/chart above, over 44% of respondents agree with the Leave policy of Organization, while 38% disagree and 18% strongly disagree.



Table No: 8 Company updates received on time

Options	Frequency	%
SA	19	38%
A	20	40%
N	0	0%
DS	11	22%
S-DA	0	0%



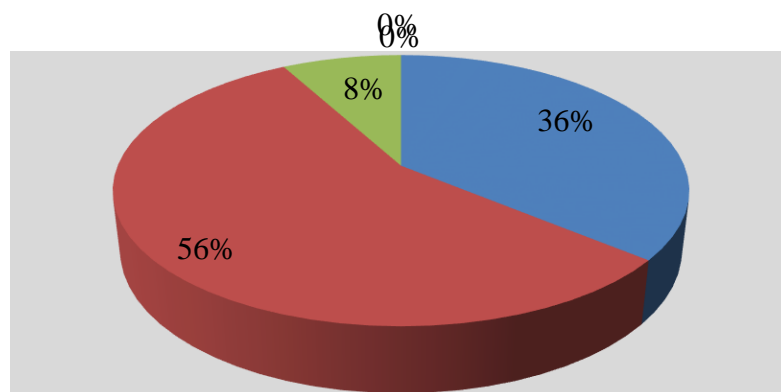
### Interpretation

As can be seen from the above data, roughly 38% of respondents strongly agree, 40% of respondents agree, and 22% of workers disagree with the statement.

Table No: 9 If your discharge is postponed, how does it make you feel?

Criteria	Frequency	%
SA	18	36%
A	28	56%
N	4	8%
DA	-	-
SDA	-	-

### If your discharge is postponed, how does it make you feel



#### Interpretation

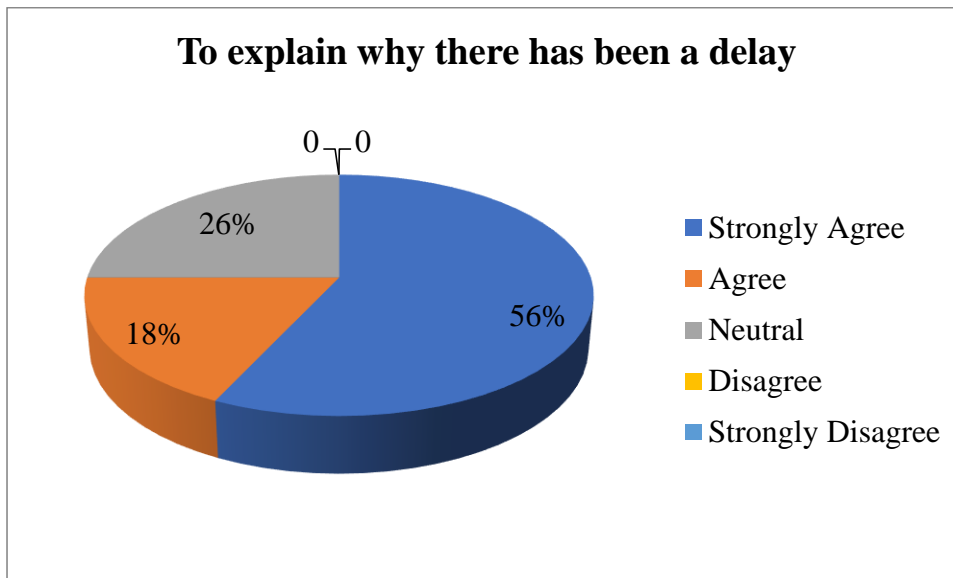
shows that the If your discharge is postponed, how does it make you feel by 36 percent. 56% (although not firmly) are agreed to this declaration. The declaration is 8 percent neutral. None of them showed considerable disagreement or disagreement on this issue.

Since 92 percent of responders get good feedback, we may conclude that If your discharge is postponed, how does it make you feel.

Table No: 10 To explain why there has been a delay,

Sl Number	Criteria	Number of responders	Proportion
1	Strongly agree	28	56%

2	Agree	09	18%
3	Neutral	13	26%
4	Disagree	0	-
5	Strongly disagree	0	-

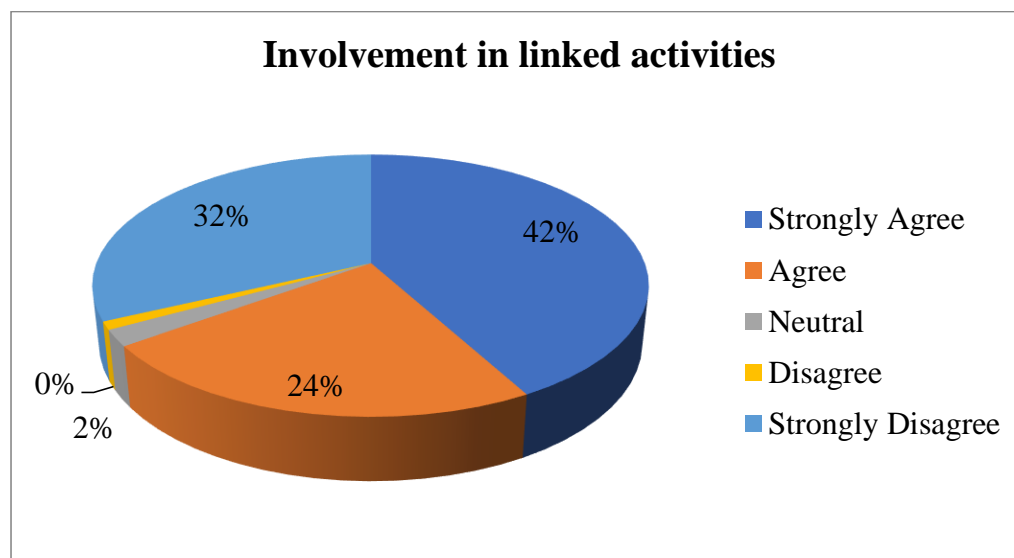


### Explanation

In allowing for a diagram, 56% of respondents strongly agreed that To explain why there has been a delay, 18% agreed. Neutral towards the announcement is 26 percent of respondents. None of the respondents expressed To explain why there has been a delay.

Table No: 11 Involvement in linked activities

Sl number	Criteria	Number of responders	Proportion
1	Strongly agree	21	42%
2	Agree	12	24%
3	Neutral	1	2%
4	Disagree	0	0%
5	Strongly disagree	16	32%

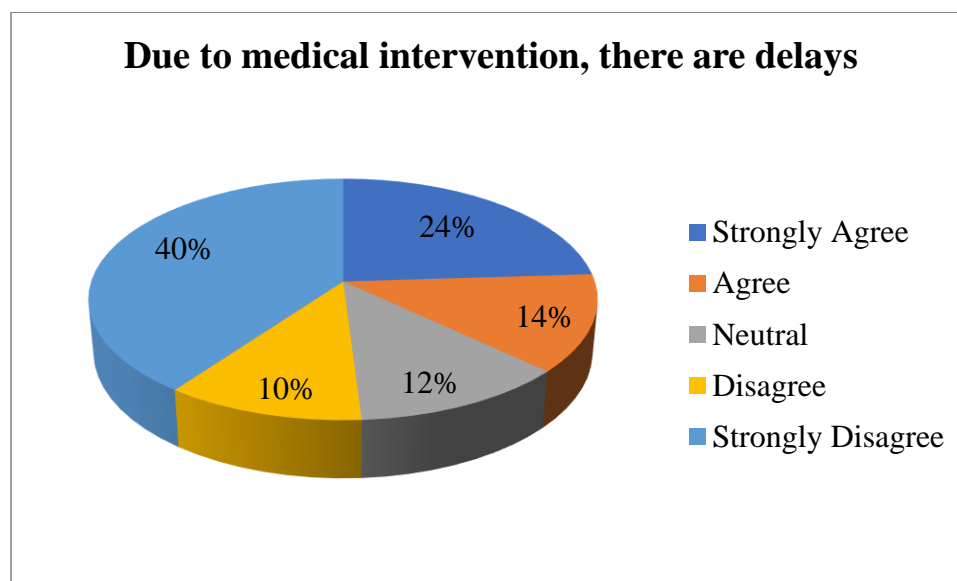


### Explanation

42% of the sample population strongly agrees that there is significant overlap between their interests and those of the connected activities, as seen in the accompanying infographic. Only 24% of those polled thought this announcement was a good idea (although not enthusiastically). Just 2% of those polled had no strong feelings one way or another towards the news. The answers received were varied and varied among the respondents. There was strong disagreement amongst 32% of those polled on this subject.

Table No: 12 Due to medical intervention, there are delays.

Sl Number	criteria	Number of responders	Proportion
1	Strongly agree	12	24%
2	Agree	7	14%
3	Neutral	6	12%
4	Disagree	5	10%
5	Strongly disagree	20	40%

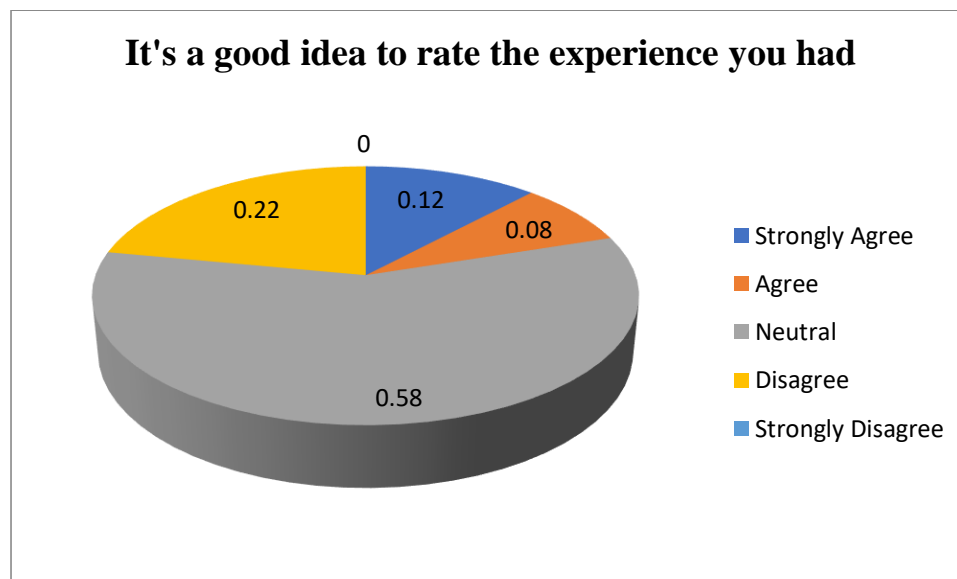


#### Explanation

According to the graphic, 24% of respondents agreed strongly that due to medical intervention, there are delays. This remark was approved by 14 per cent of the respondents (although not forcefully). The declaration is made by 12% of respondent's neutral. Their disagreement was just 10 percent. 40% of respondents expressed significant disagreement on this issue

Table No: 13 It's a good idea to rate the experience you had

Sl Number	Criteria	Number of responder	Proportion
1	Strongly Agree	6	12%
2	Agree	4	8%
3	Neutral	29	58%
4	Disagree	11	22%
5	Strongly Disagree	0	-

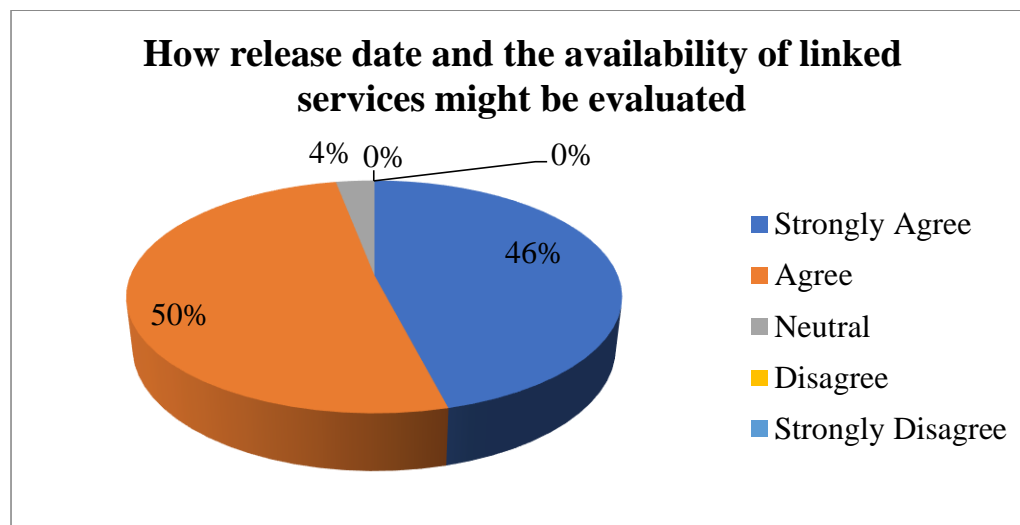


#### Explanation

12 percent of respondents agreed, according to graphic, that It's a good idea to rate the experience you had. Eight percent (though not strongly) of respondents agreed to this statement. The statement is neutral for 58 per cent of respondents. 22 percent disagreed with the respondents. None of the responders strongly disagreed with this issue

Table No: 14 How release date and the availability of linked services might be evaluated

Sl Number	Criteria	Number of responders	Proportion
1	Strongly Agree	23	46%
2	Agree	25	50%
3	Neutral	2	4%
4	Disagree	0	0%
5	Strongly Disagree	0	0%



### Explanation

According to the graphic, 46 percent of respondents strongly believed that How release date and the availability of linked services might be evaluated, 50% of those polled agreed (although not strongly) with this statement. Only 4% of those polled are opposed to the statement. None of the respondents have shown a significant disagreement or disagreement with this question.

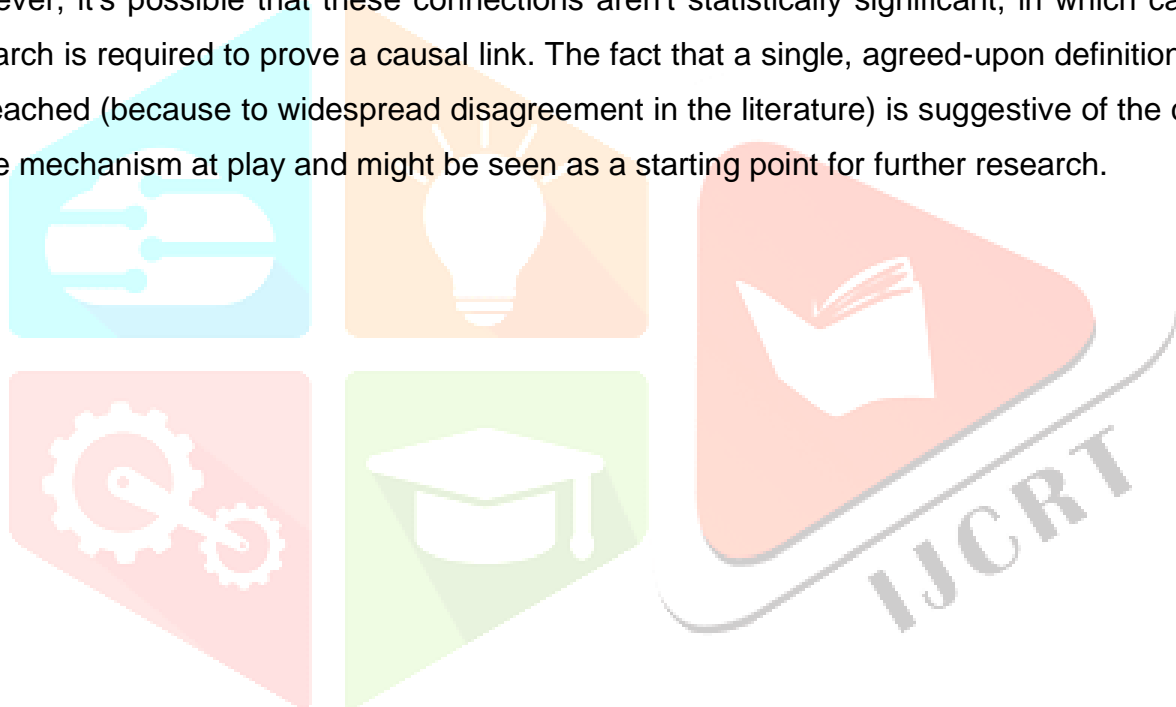
## 7. RESULTS AND FINDINGS

- Analysis represents that 26 percent of the respondents are married and the remaining 74 percent of the respondents are unmarried.  
Its interprets that Majority of the respondents found in the survey are unmarried
- It was discovered that respondents were classified based on their age group.
- We can observe that 54 percent of respondents strongly agree with business policies, 30 percent agree with company rules, and the remaining 16 percent are indifferent with company policies.
- From the above analysis of table/chart it is clearly interpreted that out of total survey nearly 44% of respondent agree
- From the above analysis of table/chart it is clearly interpreted that out of total survey nearly 38% of employees strongly agree, 40% of respondent agree, 22% of employees disagree.
- Graph shows that the If your discharge is postponed, how does it make you feel by 36 percent. 56% (although not firmly) are agreed to this declaration.
- In allowing for a diagram, 56% of respondents strongly agreed that To explain why there has been a delay, 18% agreed. Neutral towards the announcement is 26 percent of respondents
- According to the graphic, 42% of people in question highly agree with Involvement in linked activities. This announcement was approved by 24% of the respondents (although not enthusiastically).
- According to the graphic, 24% of respondents agreed strongly that due to medical intervention, there are delays. This remark was approved by 14 per cent of the respondents (although not forcefully).
- 12 percent of respondents agreed, according to graphic, that It's a good idea to rate the experience you had. Eight percent (though not strongly) of respondents agreed to this statement.
- According to the graphic, 46 percent of respondents strongly believed that How release date and the availability of linked services might be evaluated, 50% of those polled agreed (although not strongly) with this statement.



## ➤ 8. LIMITATIONS OF THE STUDY

We anticipate that this scoping review will pave the way for future, more in-depth systematic studies and innovative approaches to evidence synthesis (such as realist reviews). By analyzing the data, we can be sure that our chosen inclusion criteria are applicable, and we may also come up with new questions to ask regarding the causes and effects of discharge delays. It contributes to our knowledge because it provides a fuller explanation of the concept than has been offered before. This comprehensive investigation provides a clear and succinct picture of the causes of unnecessary hospital stays among adult patients receiving acute care. After reviewing the available literature, we were able to establish a conceptual description of delayed discharges and a systemic representation that isolates (yet links) their causes and effects. We also identified intervention studies that investigated the causes and potential remedies for delayed discharges. By evaluating the findings of several research, we were also able to identify vital links between separate elements. However, it's possible that these connections aren't statistically significant, in which case further research is required to prove a causal link. The fact that a single, agreed-upon definition could not be reached (because to widespread disagreement in the literature) is suggestive of the complexity of the mechanism at play and might be seen as a starting point for further research.

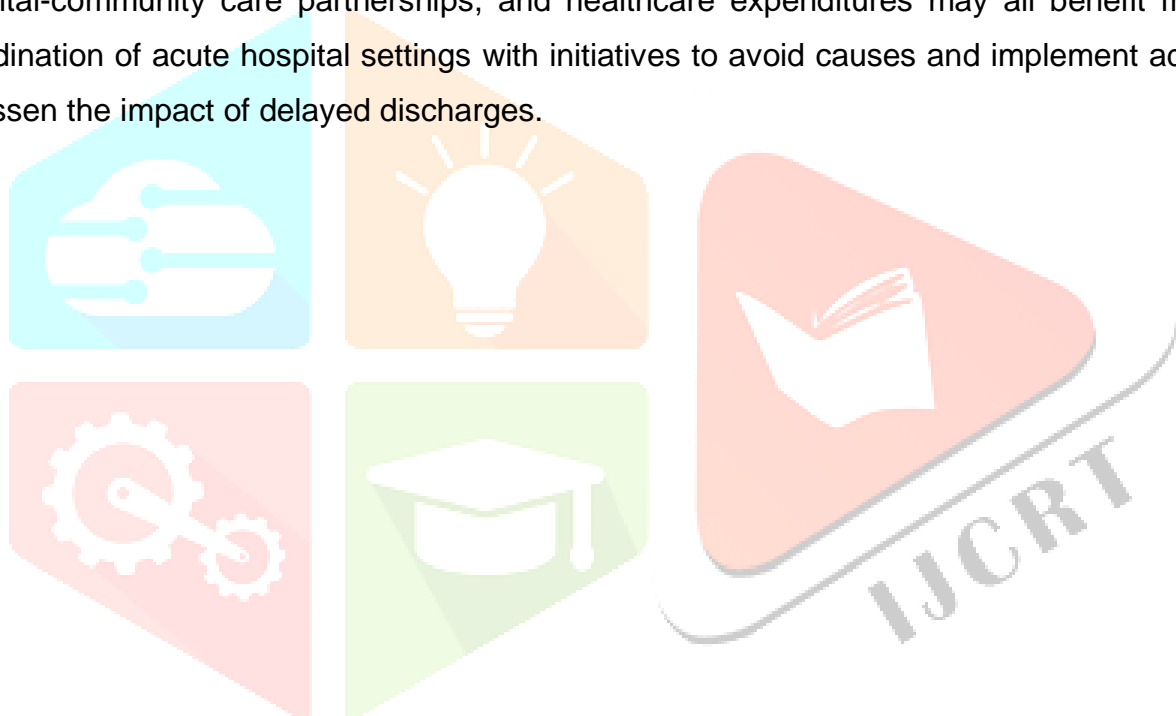


## 9. CONCLUSION/SUGGESTIONS

Most patients were satisfied with their discharge experience, however this study found an unacceptable frequency of four-hour delays in discharges. It's reasonable to be concerned about the potential for harm to patients and increased healthcare costs as a result of the long wait times patients experience.

The poll found that although the vast majority of patients at the Gastro Care Hospital were happy with their discharge processes, a sizable percentage were unsatisfied due to unnecessary delays that caused them unnecessary suffering. Medication delays seem to be the greatest barrier to patient discharge. Some adjustments have been suggested to make sure all patients are satisfied.

This scoping study may help guide future research into the root reasons of inpatient discharge delays, as shown in the corresponding systems model. Hospital beds, emergency room wait times, hospital-community care partnerships, and healthcare expenditures may all benefit from better coordination of acute hospital settings with initiatives to avoid causes and implement adjustments to lessen the impact of delayed discharges.



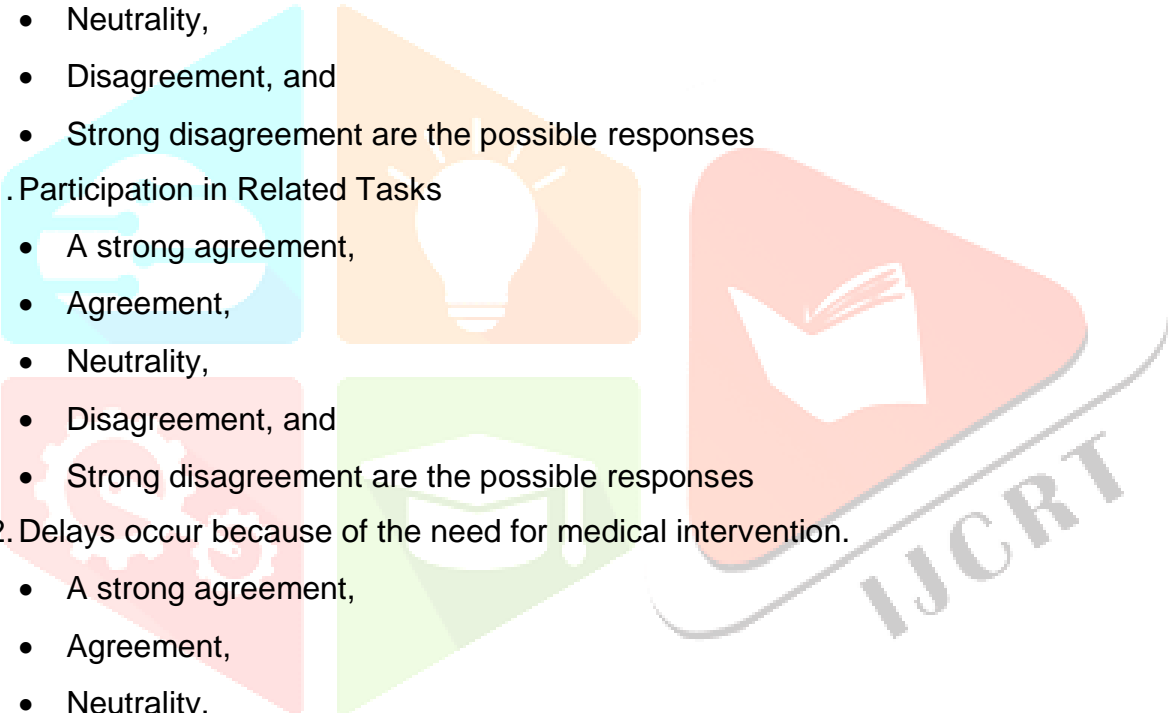
## SUGGESTIONS

- Patients must be informed of their impending discharge at least one day in advance.
- After a patient is ready to leave the hospital, he or she will have a one-on-one consultation with a doctor to go over any medications prescribed for post-discharge care and make sure the discharge summary is complete.
- Goal of hiring more people to work in pharmacies: shorter wait times for medicines.
- In order to guarantee that ancillary health services are provided promptly,
- Despite the fact that the vast majority of patients report being satisfied with their release, this study found that a shockingly high proportion of discharges were delayed by more than four hours. These huge delays very certainly contribute to worse quality of treatment and increased healthcare costs, thus worries are justified.



## ANNEXURES

1. The Respondents' Categorization Based on Their Relationship Status
  - Married
  - Unmarried
2. Respondents' Age Grouping Classification
  - Under 25
  - Between 26 and 35
  - Above 36
3. Experience
  - 0-4
  - 4-8
  - 8-12
  - Above 12
4. Earnings per month
  - Below 10000
  - 10000-20000
  - 20000-30000
  - Above 30000
5. Shows those who have met the requirements
  - Diploma
  - Bachelor's
  - Graduate Degree
6. You say that the company's policies are well-defined and articulated.
  - A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses.
7. Organization's stance on taking time off
  - A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses.
8. On-time delivery of company information
  - A strong agreement,
  - Agreement,

- Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
9. How do you feel if you have to wait longer than expected for your discharge
- A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
10. In order to shed light on the reasons behind the delay,
- A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
11. Participation in Related Tasks
- A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
12. Delays occur because of the need for medical intervention.
- A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
13. It's useful to evaluate your encounter.
- A strong agreement,
  - Agreement,
  - Neutrality,
  - Disagreement, and
  - Strong disagreement are the possible responses
14. Possible metrics for gauging readiness at launch and the accessibility of related services
- A strong agreement,
  - Agreement,
  - Neutrality,
- 

- Disagreement, and
- Strong disagreement are the possible responses

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