

SWOT Analysis of Sick New-born Care Unit in a Tertiary Care Teaching Hospital.

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Abstract: This paper presents the SWOT (Strengths, Weakness, Opportunities and Threats) analysis of SNCU (Sick New-born Care Unit) which is a central government initiative to provide quality facility based newborn healthcare to sick newborns. It is a Norway India partnership initiative. It aims to meet, basic needs of all newborns such as Breastfeeding, warmth, breathing. Prevention of infection remains the corner-stone in tackling newborn mortality. Parents are educated about the care of the newborn, its nutritional needs, immunization schedule. SWOT Analysis is a structured planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats. SWOT analysis can be carried out for product, place, industry or person. SWOT Analysis is sometimes called Internal-External Analysis and the SWOT matrix is sometimes called an IE Matrix. Based on the results of formal examinations, internal on-the-job assessment and interview of doctors, nurses, and parents and their technical skills and motivation were rated very high. Although the incremental cost of training is small, the cost of sustaining them, i.e. stipend and replacing attrition needs to be addressed. Trained Newborn Aides may substantially alleviate human-resource constraint for SNCUs and Sick New-born Stabilization units in smaller peripheral hospitals for care of sick newborns at an affordable cost.

Keywords: 1) SWOT Analysis 2) SNCU 3) Strategic Management 4) NCRC

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I. Introduction

The Infant mortality rate is one of the parameter of PQLI (Physical Quality of Life Index). The current neonatal mortality rate is 28/1000 live births (2015). As a measure to reduce this and improve the development of the nation, government of India has started establishing Sick Newborn Care Unit in hospitals, with an aim to reduce neonatal deaths to meet the target 4 of MDG (Millennium Development Goals).

Effective and accelerated reduction of neonatal mortality rate needs back-up support of modern sick newborn care unit in hospitals. Sick newborn care units (SNCUs) are needed to support a meaningful referral mechanism for primary new-born care.

SNCU

Sick New-born Care Units are special newborn units, in a large hospital generally at district level, meant to reduce the case fatality among sick newborns, either born within the hospital or outside, including home delivery. It is an initiative to provide quality facility based newborn healthcare to sick newborns. It is a Norway India partnership initiative.

The SNCU concept evolved from a pioneering work of department of neonatology, SSKM Kolkata headed by Dr.A.K.Singh and Society for Applied Sciences, represented by Dr.AmitavaSen, who played a stellar role in establishment of the first Sick New Born Care Unit at Purulia in 2003. NIPI (Norway India Partnership Initiative) model includes an Emergency Treatment and Triage area, a neonatal ward and a step down ward apart from the core SNCU facility. The SNCU should have at least 12-16 warmer beds providing 24 hours service.

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Components of SNCU:

Main Sick Newborn Care Unit: This should have at least 12 -16 beds, The SNCU area divided into two interconnected rooms (600 - 800sq.ft for each) separated by transparent observation windows. A nursing station of 200sq.ft is located in between the two rooms.

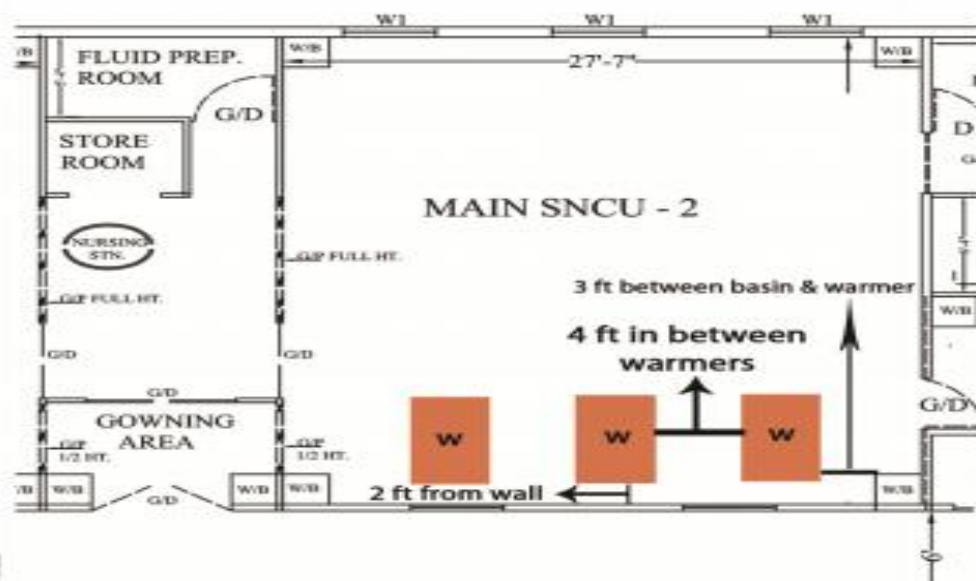
Step down Unit: 6- 8 bed Step down Unit where recovering neonates are kept.

New-born Ward: This is an additional 10 - 20 bed, where both the mother and the new-born can stay together, for neonates who require minimal support.

Ancillary area:

- Side Laboratory Room,
- Store room
- Teaching and Training Room
- Day and Night Shelter for mothers of out born neonates with I.E.C. facilities e.g. T.V. with Audio- Video facilities
- Place for In-house facility for washing
- drying and autoclaving
- Duty Room for doctors and Nurses
- Power room
- Place for Promotion of Breast feeding & learning mother craft
- Sluice room and janitors closet

Location of the SNCU: Should be located near the Labor room, Labor Ward and Obstetrics Operation Theatre.



Manpower Requirement for SNCU

Calculated for SNCU with 12 Beds, Step down Unit of 6 Beds, Triage of 2 beds, neonatal ward of 10 beds and 3 bedded isolation ward.

Particulars		No. of Personnel
Doctor with one in charge		6
Nurse	In charge	2
	Staff Nurse	21
GDA		6
Sweeper		9
RogiShahayak		2
Data entry operator		1
Lab. Technician		1
Critical Care Technician		1
Neonatal Nursing aides		8

Introduction to SWOT Analysis

SWOT Analysis is a structured planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats. SWOT analysis can be carried out for product, place, industry or person.

The SWOT analysis technique is credited to Albert Humphrey at the Stanford research institute (Now SRI International) in the 1960-1970s.

Strengths: Characteristics of that place organization at advantages over others.

Weakness: Characteristics that place the organisation at a disadvantage. Strengths and Weaknesses are internal to the organisation.

Opportunities: Elements that the organization could exploit to its advantages. An opportunity is a major favourable situation in a firm's environment.

Threats: Elements in the environment that can cause trouble to the organisation.

SWOT Analysis is sometimes called Internal-External Analysis and the SWOT matrix is sometimes called an IE Matrix.

The primary purpose of the SWOT analysis is to identify and assign each significant factor, positive and negative, to one of the four categories, allow taking an objective look at the process.

Weaknesses can be converted into challenges and serve as incentives. After analyzing them, it is possible to suggest strategies to be implemented for improvising the functioning of the SNCU. Proper evaluation of the functioning of SNCU should be done periodically and remedial measures must be suggested.

SWOT analysis stands at the core of strategic management.



When to use SWOT Analysis:

The use of a SWOT analysis by health care organizations is as follows:

1. Explore new solutions to Problems.
2. Identify barriers that limit goals/objectives.
3. Decide on direction that will be most effective.
4. Reveal possibilities and limitations for change.
5. To revise plans to best navigate system, communities and organization.
6. As a brain stringing and recording device as a means of communication.
7. To enhance credibility of interpretation to be used in a presentation.

Purpose of the Study

This study aims at utilizing management technique of strategic management to health care industry. Most of the health care organizations are being managed by group of administrative staff who are not qualified in hospital administration. They work based on their experience without making use of the wide range of management methods available which they are not aware of. This study enlightens the importance of applying management methods in providing quality care to the patients who are the health care consumers.

SNCU being one of the key areas in providing neonatal care, studies to assess the current working of the SNCU & suggest the required remedial measures are needed. SWOT analysis is one of the good opportunities wherein it is to suggest strategies for its improvisation. This study enables us to know where the SNCU stands at present, suggest strategies for the improvisation of SNCU.

Improve neonatal care → Hence contribute to improved neonatal health → Reducing neonatal mortality → Achieving MDG 4 → Thus contributing to development of the country.

Objectives of the Study:

- Identify the strengths of SNCU
- Identify the weaknesses of SNCU and suggest necessary steps to overcome them.
- Identify the opportunities available and explore them.
- Identify the surrounding threats and help to overcome them.
- Suggest strategies by which strengths can be utilized to take advantage of opportunities.
- Identify the current position of SNCU in relation to its required standards

II. Methodology

Direct observation & questionnaire is designed for both patients & staff. Prospective observations were made for 2 months during work period in SNCU. This was added to the filled questionnaire & consolidated into meaningful results.

Sample size: 109 of which 89 are parents of newborn, 20 are technical staff

SWOT Analysis is a useful technique for understanding the Strengths and Weaknesses, and for identifying both the Opportunities open to the system and the threats. The SNCU in Gandhi hospital was selected where the current analysis was done.

Two questionnaires were prepared. Parent satisfaction questionnaire was prepared in English & later translated in to native language (Telugu) which is a dual response questionnaire with 22 yes or no questions with an option for suggestions. The questionnaires were structured undisguised with purpose being clear to the participants. Since it is in telugu language, it is easy to understand & easy to finish. The questionnaire was given to 100 parents of new-borns admitted in SNCU in May and June 2017. The questionnaire was answered by 89 of them. The caretakers of the newborn were first explained of the nature of this study, its purpose, and benefits for arising from it. They were then explained about the questions and asked to fill the questionnaire. The replies were then tabulated in excel worksheet. The sheet was analysed in terms of the strengths, weaknesses, opportunities and threats.

Similarly a questionnaire is prepared based on the operational guidelines for the functioning of SNCU as published by government. It was given to all the technical staff and administrative staff involved in SNCU-like nursing staff, doctors, medical superintendent and resident medical officer in-charge of the hospital. We could get data from 20 staff. The questionnaire has 29 yes or no questions with an option for suggestions. This was tabulated in excel sheet and assessed for the strengths, weaknesses, opportunities and threats.

After identifying the strengths, weaknesses, opportunities and threats, strategies were formulated to improve the functioning of SNCU. We could describe how the strengths could be useful in taking advantage of the opportunities available, how to overcome threats and weaknesses.

Statistical Techniques:

It is an observational study utilizing Microsoft excel tabular presentation of data

III. Results

STRENGTHS	WEAKNESSES
• Presence of Good housekeeping facilities.	• Inadequate Follow up care
• Presence of in-house laboratory	• Inadequate training to nursing staff.
• Presence of refrigerator to store breast milk.	• The step down unit though present, it is not properly equipped & underutilized.

• Round the clock medical care is available.	• Lack of generator for power backup.
• Prompt attention to the newborn needs with good focus on nutritional needs	• Lack of availability of drinking water.
• Good communication skills of staff.	• Insufficient space for mothers of out born babies, insufficient storage room
• Proper instructions being given to caretakers.	• Insufficient equipment
• Kangaroo mother care is being practiced.	• SNCU is away from labor room
• Provision of services free of cost.	• Absence of a neuro-developmental follow up clinic.
• Daily reporting of SNCU is done online ensuring proper data recording.	• There is no facility for IEC activities.
• Presence of security guard ensuring 24 hrs security .	• Lack of critical care technician
• Availability of services 24*7*365	• Availability of limited investigations in the lab.
• Availability of specialists.	• Lack of sufficient safety measures.

Table 1- strengths & weaknesses of SNCU – intrinsic factors

OPPORTUNITIES	THREATS
• Adequate maintenance grant is being provided by the government	• Lack of NICU facility nearby due to which babies need to be transported for long distance for intensive care.
• No other SNCU facility is present in the district.	• Lack of awareness among people about the SNCU facility.
• Increasing confidence among people on care at SNCU.	• No assistance from NGO s.
• Development of new & sophisticated health care equipment.	• Private hospitals with good infrastructure & equipment for newborn care are coming up.
	• Babies are sometimes referred out due to insufficient beds.
	• No newborn corner facility in labor room.
	• Recruitment of doctors for SNCU is currently on contract basis. Lack of regular recruitment of doctors.

Table 2- opportunities & threats of SNCU- extrinsic factors

Strategies:

- Development of IEC (Information, education, communication) activities in area of SNCU. Develop facilities so that mothers are virtually demonstrated about correct breastfeeding practices, about importance of kangaroo mother care. This room can also be used for training purpose. The nursing staff can be connected to NCRC, Kolkata which will train the nurses in newborn care.
- Having a patient care counselor who can act as an intermediary staff between newborn family members & hospital staff.
- Creating awareness among people about the necessity of neonatal care, when to approach SNCU, availability of SNCU facilities. For this we can use the existing grass root level workers like ASHA (Accredited Social Health Activist) workers, health workers & health educators who are close to the culture of the patients.
- Regular recruitment of full time doctors for SNCU. Presence of regular doctors ensures standard care.
- Training sisters in neonatal care in NCRC or from those who have received such training. Ensuring training of all nurses before recruiting them.
- Requisition to government for increase in grants.
- Taking assistance of NGOs for Purchasing latest equipment.
- Utilizing the services of the available doctors in started Neuro-developmental clinic & in improvising follow up care.
- The in house laboratory must be equipped with all the required basic equipment & must be made available 24 hrs.
- Increasing the number of beds to prevent patients being referred out would increase the care of newborns from poor families.
- Developing newborn corner in labor room & obstetric O.T.
- Provision of drinking water supply & ensuring 24 hrs. Electricity backup.
- Effective utilization of step down unit to prevent over –crowding in main SNCU unit.

- Shifting of SNCU close to labor room with enhanced area with good safety measures with provisions for isolation room, good storage room, and sluice room. Space for mothers of out born.
- Development of NICU within the hospital or getting associated with nearby NICU facility.
- Improving the infection prevention measures like providing hands free washbasins, adequate number of washbasins to be provided along with instructions for clean hand washing.

IV. Conclusion

Study on SWOT analysis of SNCU has revealed that the decision of the government about establishment of SNCU was remarkable in improving the standards of newborn care to unaffordable people in rural areas. However the measures are periodically reviewed in order to improve them. There is a good potential in terms of availability of resources after the establishment of medical college. It is on the part of administrative staff to efficiently allocate the resources. The institute must periodically inspect the SNCU to look after the standards & make necessary changes.

Limitations of the Study:

1. Limited time spent for data collected i.e. 2 months which is limited for elaborative work.
2. Questionnaire is lengthy.
3. Questionnaire did not contain printed instructions for the responder.
4. Questions didn't allow much freedom for the respondent to answer in his/her own words.
5. To avoid further lengthening of questionnaire, some aspects of SNCU were dropped down which has led to missing some important aspects.
6. Policy makers were not involved in the study.
7. Limited focus on environmental facto.

Future directions:

- Large scale study including all the SNCUs in the country.
- Study comparing SNCU in one state with that of the other.
- Study on performance indicators of SNCU.
- Annual assessments need to be made and make necessary recommendations.

Abbreviations:

PQLI- Physical Quality of Life Index
NMR – Neonatal Mortality Rate
SNCU- Sick New Born Care Unit
MDG4- Millennium Development Goal 4
NIPI - Norway India Partnership Initiative
NCRC - New-born Care Resource Centre.
O.T. - Operation theatre.
NICU - Neonatal intensive care unit

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