



INTERNSHIP REPORT

On

**Research Approaches of the Health System and Population Studies Division
(HSPSD), icddr,b**

Submitted to

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Submitted by

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Date of Submission: 12/05/2021

LETTER OF TRANSMITTAL

Date: 12 May, 2021

The Head,
Nutrition and Food Engineering (NFE)
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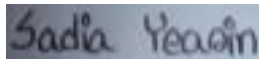
Subject: Submission of Internship Report.

Dear Sir,

It is a great pleasure to submit my Internship Report, as a partial requirement of the Internship Program and a prerequisite for completion of the BSc. in Nutrition and Food Science Program. I believe it is one of my great achievements to pursue and successfully complete internship at icddr,b. This report is based on my work entitled “**Research Approaches of the Health System and Population Studies Division (HSPSD), icddr,b**”. I have got the opportunity to work in icddr,b in Health System and Population Study Division for four months, under the supervision of **Dr. Sabrina Rashid**, Associate Scientist. This internship opportunity gave me both an academic and practical perspective. During the entire period of my internships I specially learnt about the various research activities of this division at icddr,b. In addition, I get the opportunity to get introduced with some of my fellow interns from various backgrounds which helped to acquire diversified information about their research area. Finally, I have joined an online presentation to my supervisor for sharing my internship outcome and report in a formal way.

I shall be highly obliged if you are kind enough to accept this report and provide me your valuable judgment. It would be my immense pleasure if you find this report useful and informative to have an apparent perspective on the issue.

Thank you again for your support and patience.



Sadia Yesmin Mim

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LETTER OF RECOMMENDATION

This is to certify that the internship report entitled “**Research Approaches of the Health System and Population Studies Division (HSPSD), icddr,b**” which is submitted for assessment to the examination committee by Sadia yeasin Mim bearing ID: 171-34-598, Department of Nutrition and Food Engineering (NFE), Daffodil International University (DIU).

I am pleased to declare that this report is entirely written by the author and all the related works have been conducted by the intern under my strong supervision and observation. This is a piece of original work and has not been submitted or published anywhere for any other purpose. I strongly recommend the approval of the report by the authority and I also pursue a positive and fair evaluation of the work.

I wish her all the success in life.

Yours Sincerely



Dr. Amir Ahmed

Head, Department of BRE
Daffodil International University

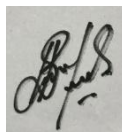
CERTIFICATE OF APPROVAL

I am pleased to certify that the project report on “**Research Approaches of the Health System and Population Studies Division (HSPSD), icddr,b.**” prepared by **Sadia Yeasin Mim** bearing **ID: 171-34-598**, of the Department of Nutrition and Food Engineering, Daffodil International University has been approved for presentation and defense/viva-voice.

I am pleased to hereby certify that the data and finding presented in the research report are the authentic work of **Sadia Yeasin Mim** bearing **ID: 171-34-598**, I strongly recommend the internship report to be presented by **Sadia Yeasin Mim** for further academic recommendations and defense/viva voce. **Sadia Yeasin Mim** bears a strong moral character and a very pleasant personality. It has indeed a great pleasure working with her. I wish her all success in life.



23/07/2021



Dr. Sheikh Mahatabuddin

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**Research Approaches of the Health System and Population Studies Division
(HSPSD), icddr,b.**

Organized by Health System and Population Studies Division at icddr, b.

Mohakhali Dhaka-1212, Bangladesh



Course Advisor: Dr. Sabrina Rasheed, Associate Scientist; HSPS division.

Course Coordinator: Syeda Mahsina Akter, Research Investigator **Course Co-**

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2. Morzina Akter, Assistant Research Investigator.

3. Sujaul Islam, Field Researcher.

4. Md. Salim Ahamed, Assistant Field Researcher.

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ABBREVIATION

ICDDR	International Centre for Diarrhoeal Disease Research, Bangladesh
ONS	Oral nutritional supplements
EN	Eternal Nutrition
CRDs	Chronic respiratory diseases
CVDs	Cardiovascular diseases

CHAPTER-1

1. INTRODUCTION

ICDDR,B formerly identified as the International Centre for Diarrhoeal Disease Research. It is an international health research organization located in Dhaka, Bangladesh. It is working to rescue existence by investigation and interference. They address most serious illness concerns moving towards in the current world, varying from growing new born survival to HIV/AIDS. By growing, checking and evaluating the accomplishment of interference individually intended for limited resources surroundings their points is to develop being well of common people and about their health condition. In excess of five decades, icddr,b has been execute exceptional experimentation and as well encourage the utilization of experience-based interference. icddr, which is a particular main research organization in the Global South, discharged, as reported by the Thomson Reuters Web of Science, 18% of Bangladesh's reporting.

In icddr, national and international staff are working in different departments such as consultant, nutritionists, epidemiologists, demographers, public health researchers, experiment laboratory researchers, community-based and behavioral scientists, computer experts and specialists in appearing and re- appearing contagious diseases etc. It is controlled through a composite of basic assistance from bilateral donors. Different organizations grant donation and icddr,b can operate their activities properly. It is financed through fifty five contributor countries and associations. icddr,b is led by a skilled management team.

1.1 AN OVERVIEW OF ICDDR,B

Table1: History

Location	Bangladesh
Headquarters	Dhaka
Formation	60 years ago,1960
Objective	Diarrhoeal Disease Research
Formerly called	SEATO Cholera Research, laboratory
Executive Director	Dr. Tahmeed Ahmed
Remarkable researchers	Dilip Mohalonabis Colin Munro Macleod Richard A. Cash David R. Nalin
Logo	

1.2 ICDDR,B HOSPITAL ACTIVITIES AT A GLANCE

ICDDR, B provides clinical activities around Dhaka city as well as research. icddr.b set out different training sessions which are needed to the researcher all over the world like clinical, research, microbiology, biotechnology. If they face any research problem they arrange the meeting with national and international researchers to solve the problem. They are motivated by those people who are facing the problem. There are long relationships between Bangladesh and UK for developing research work about the health sector. icddr,b provided the diagnostics services, Endoscopy, Colonoscopy, vaccination and The Expanded programme on Immunization (EPI) vaccines services. Their main part of this institute is research activities. Most of the part of the activities is to the training activities and extension activities about health research.



Figure 01: Senior director of icddr,b describe about remedial food for undernutrition

1.3 FIELD SITES

Their major strengths is a large range of field sites over Bangladesh.

Rural Sites

In rural sites major field sites and global health resources are Matlab.

- Family planning: In the 1970s innovative work with female community health workers dramatically increased use of birth control and decreased pregnancy, this technique acted as greatly raising globally.
- Vaccination: In Matlab it was displayed that sixty three percent of deaths in childhood acted as because of vaccine treatable infection and perhaps interrupted entirely through successful vaccination campaigns.
- Infant care and Birth prevention: Because of mutual programming in child health and family planning in the last 25 years the year-end quantity of adolescence deaths turndown about 75%.
- Longevity: life duration improved out of 50 years to about 65 years in the past 40 years thanks to interference that upgraded infant's survival and decreased pregnancy.

Urban Sites

They have two urban sites which are located at Kamalpur and Mirpur in Dhaka. In Mirpur which has been used for smaller but more intensive studies of cohorts of children. These sites have been studied on various topics such as the epidemiology and pathology of various infectious diseases, as well as focused on vaccine and other community-based interference.



Figure: ICDDRBR receives 2017 Hilton Humanitarian Prize

In Kamalpur which is a population of 140,000 with a densely populated area of informal settlements. In these sites studies have been focused on shigellosis, pneumonia, dengue and influenza. It also provides the best way for health service, funding of health programmes, build up referral systems and the basis for studies on urban health systems.

1.4 TRAINING ACTIVITIES

icddr,b has formulated their training policy to cherish cooperation and major collaborators as well as institutes/association and donors. It offers training for both Bangladeshi students and foreign students. Students join in the training session to gather knowledge. icddr,b offers place technological instruction to improve skills and adequacy meant for community health physicians along with researchers in Bangladesh as well as over the world. In 1999 a course held on the administration of critically undernourished children was connected by contestants from Bangladesh together with Bhutan. Contestant's experienced interactive instruction, speech sessions. It helps to make inexpensive diets for application in social nutritional recovery programs. Icddr,b hopes to provide standard as well as essential education and instruction maintenance with inventive approaches along with online courses.

Its training activities environs given below:

- Research capability construction
- Health policy and related
- Medical Training
- Custom made training

1.5 AWARDS:

In 2020 Professor James F. Phillips, an icddr,b scientific advisory group (SAG) member, gets Carl S. Schultz Lifetime Achievement Award from the American Public Health Association in identification of his work on health maintenance research and strategy advancement in Asia

and Africa. In 2018 icddr,b's administrative Director and noted scientist Professor John D Clemens has taken the reputable Prince Mahidol Award especially for his public health achievement in gradual evaluation of the oral cholera vaccine and its progress globally. In 2017 icddr,b has received the biggest Hilton humanitarian award especially for that innovative approach to resolving international health matters impacting the world's greatest poor communities. icddr,b has received US\$ 2 million featuring unlimited funding, connecting the list of 21 former organizations that have received the Hilton Humanitarian award from the past 20 years. In 2016, previous UN Secretary-General Ban Ki-moon celebrated in such a way that icddr,b creations are straightly donating to long-lasting progress. icddr,b gained the Leadership Award from the Alliance for the Prudent apply of Antibiotics in 2007. The Prince Mahidol Award for public health was given jointly for their work on oral rehydration therapy in 2006. In 2002, Drs. Norbert Hirschhorn, David Nalin, Dilip Mahalanabis and Nathaniel Pierce took their first Pollin Prize for Pediatric Research for their donations to the growth and execution of oral rehydration therapy. icddr,b also took the first Gates Award for Global Health from the Bill & Melinda Gates Foundation in 2001.

1.6 ACHIEVEMENTS

Their work plays an important role in the good health of people in Bangladesh as well as other countries of the global South. Throughout Their history, they have established fresh products as well as created inflexible proof that has affected public health and practice in Bangladesh and globally.

Table 02: List of Achievements by icddd,b

ACHIEVEMENTS NUMBER	ACHIEVEMENTS LIST
1	Rehydration Solution of Oral
2	Zinc for Diarrhoea
3	TTV(Tetanus Toxoid Vaccine) for Mothers
4	Direction for Treating acute Malnourishment
5	Experimenting Vaccines
6	Solutions of Family Planning
7	Domestic Violence Regulation
8	Mat for Estimating Motherly Blood Loss
9	Complementary and remedial foodstuffs to avert and treat malnutrition
10	Ultra-Low-cost CPAP Device for acute pneumonia

1.6. STRATEGY

Achieving our Mission and Vision - Strategic Plan 2019-2022

Table 03: Mission and Vision

GOAL'S NUMBER	GOAL'S NAME
1	Maintain a Focused Research Strategy.
2	Develop and Promote Use of Innovations for Bangladesh and the global south.
3	Clinical and Humanitarian Services and Response.
4	Invest in our Research Platforms and Field Sites.
5	Increase the Strong Impact of Our Research Evidence.
6	Invest in Our People for the research work
7	Improve Organizational Efficiency and Cost Effectiveness immediately.
8	All time ensure Financial Sustainability for this work.

1.7 Funding Sources of icddd,b:

Research at icddr,b is funded by a mix of core bilateral donor funding and grant profits. The government of Bangladesh is very grateful to icddr,b for providing financial help for sufficient time. The overwhelming amount of financial support for research work is supported by various types of NGOS. The top 10 sources for restricted and unrestricted grants in 2017 were:

The top 10 source of income section for icddr,b

Table 4: Source of income:

NUMBER OF SOURCE	SOURCES OF INCOME SECTION
1	Bill & Melinda Gates Foundation, USA
2	Centers for Disease Control and Prevention (CDC), USA
3	Commission of the European Communities
4	United States Agency for International Development (USAID)
5	The Global Fund to Fight AIDS, Tuberculosis and Malaria
6	National Institutes of Health (NIH), USA
7	Government of the People's Republic of Bangladesh
8	Swedish International Development Cooperation Agency (SIDA)
9	UKAID: Department for International Development (DFID)
10	Global Affairs Canada (GAC), Government of Canada

1.8 About Health System and Population Studies Division (HSPSD)

It assesses the evaluated gaps and financing policy in the health sector of Bangladesh.

Approach:

HSPS divisions have specific ability in the region for example public-health funding technique, urban health, gender-related topic, use of new automation, execution research, statistic observation, systematic reviews and strengthening economic development of the national health program.

1.8.1 Programs of research are given below:

- Gender and generative Rights;
- Chronic Diseases;
- Weather Change and Health, and
- Regular Health assurance.

1.9 RESEARCH FOCUS AREA

Quantitative and qualitative study can be focused on maternal awareness, complementary eating, breastfeeding, psychological practices, community nutrition, young children, babies, and this research organization division's current situation.

The research can be quantitative and qualitative research depending on maternal knowledge, complementary feeding, breastfeeding, and physical activities, community nutrition, and young children, infant, current situation of this research organization division.

1. Dr. Mahbub E Elahi Khan Chowdhury (Acting)

2. Dr. Sabrina Rasheed, AssociateScientist.

CHAPTER-2

2. OBJECTIVES

2.1 GENERAL OBJECTIVES

The general objective is to fulfill the requirement of our department to complete my graduation degree. As a student of Nutrition and Food Engineering Program, I would like to gather practical knowledge by working in the Health System and Population Studies Divisional International Centre for Diarrhoeal Disease Research, Bangladesh. Now I would like to do several works related to my subject's arena for three months to acquire practical knowledge.

2.2 SPECIFIC OBJECTIVE

1. Knowing about the functions and activities of the Health System and Population Studies Division in the International Centre for Diarrhoeal Disease Research, Bangladesh.
2. Gaining knowledge about different research approaches of the division.
3. Acquiring basic knowledge of quantitative and qualitative data collection, data analysis with Statistical Programming language including SPSS.
4. Orientation of different types of literature review techniques for scientific paper writing.

CHAPTER-3

3. INTRODUCTION TO THE INTERNSHIP TITLE:

A novel coronavirus which is a new strain of coronavirus that has not been identified in humans previously and the current outbreak has been caused by it that had not previously detected anywhere in the world before the prevalence was reported in Wuhan, China in December 2019. COVID-19 affects several humans in several ways. Maximal affected people will improve mild to moderate illness as well as recover without hospitalization. COVID-19 symptoms range from mild to severe as like diabetes, chronic respiratory diseases (CRDs), cardiovascular disease (CVD), severe pneumonia, kidney failure and cancer are more likely to need special treatment.

Management of nutrition is important to increase the immune system for a contaminated person in opposition to RNA viral infection. In that place enough proof to demonstrate that the immune system can be weakened by insufficient nutrition. For this reason nutritional status should be verified COVID-19 contaminated patients before/during and after the management of usual treatment and contributing proper nutrition and dietetics involvement is essential.

3.1 Importance of nutritional management during and post hospitalization period

Nutrition is all about taking a healthy and balanced diet. A healthy and balanced diet keeps a man fit and reduces the risk disease. Proper nutrition strengthens the immune system and it protects a man from many diseases. It is the foundation of good treatment. So, nutritional management bears great importance in human life.

COVID-19 is a global pandemic. Due to Coronavirus, millions of people are affected worldwide. Millions of people have died. Millions of people have come round. Nutrition is a vital element which protects our body from various kinds of diseases and helps us to be free from diseases. Nutrition is very helpful for a COVID-19 affected patient. People lose the strength of their immune system when they are affected by coronavirus. In this situation, taking a healthy and balanced diet can build up and improve the immune system that will increase the power of disease protection. Proper nutritional management during and post hospitalization period is important and helpful to improve the immune system. Check for Malnutrition, Optimization

of the nutritional status, Supplementation for vitamins and minerals, Enteral nutrition (EN), Regular physical activity, Oral nutritional supplements (ONS) are some important elements of nutrition management during and post hospitalization period. The implementation of proper nutritional management of patient is necessary to ensure an ideal nutritional status and to progress clinical effect.

Table 5: Literature review related to my thesis topic.

Author & Year	Purpose/Aim	Design	Sample size	Dependent variables	Results /Findings
1.Crawford, J., Davidson, K., Hirsch, J., McGinn, T., Narasimhan, M. & Richardson, S. (2020)	To report the medical feature and end result of patients with COVID-19 hospitalized in a US health maintenance system.	Descriptive design	5700	Clinical presentation, COVID-19	Clinical results through treatment, including invasive instrumental ventilation, kidney replacement therapy, and death. Statistics, basis symptomatology, presenting essential signs, and test results were collected as well..

<p>2. Arieta, L., Bongiovanni, S., Demonstis, S., Formisano, E., Giudice, M., Ivaldi, C., Maio, P., D., Pasta, A., Panizi, L., Sferazzo, E., & Valentino, E. (2021)</p>	<p>The purpose of this research was to contribute an approach to reduce the risk for undernutrition and evolve patients clinical outcomes</p>	<p>Descriptive design</p>	<p>143</p>	<p>Nutritional therapy, Oral nutritional supplement, Dysphagia</p>	<p>The nutritional treatment was well overcome throughout the patients. 19.1% died from non-ICU patients. They were mainly women, with higher body mass indices and older in age. ICU patients 53.1% died. 94 non-ICU patients, 72 scored positive on at least one nutritional risk selection item (excluding age). Of the 94 non-ICU patients, 68 were >70 y of age. Non-ICU patients whose energy and protein needs were not met were older ($P = 0.01$) and had a higher death rate than patients whose needs were met ($P < 0.001$).</p>
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<p>3.Henderson,E.(2020)</p>	<p>To know the basic role of nutritional management and medical nutrition on treatment and recovery outcomes.</p>	<p>Exploratory design</p>	<p>431</p>	<p>Vitamin supplementation, nutritional support, COVID-19 patients' recovery</p>	<p>During recovery of Covid 19 here small scale practical clinical guidance showed , even if it can affect recovery time and people's capability to return to doing the object that substance most to them.For sustaining skeletal muscle nutrition is crucial and keep away from metabolic disturbances as well as when patients are expanding about two weeks in ICU, these can turn out to be serious issues. Final result of this research in the assumption of practical guidelines on combining nutritional care in the treatment and recovery of patients.</p>
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<p>4.Sharma, D.(2020)</p>	<p>To know the role of a healthy diet while recovering from infections.</p>	<p>Case Study Design</p>	<p>324</p>	<p>Immunity, Covid-19 infection, Post-COVID recovery</p>	<p>Post- recovery care is even more vital in current times as cases of COVID infections are only rising and one cannot undermine the importance</p> <p>Of a healthy diet while recovering from any infections. Moderate exercise helps in flu-fighting power of individuals. Exercise which can be done alone like cycling, jogging, jumping rope, dance workout and yoga etc can also help in building immunity. One should also work on reducing stress levels meditation, through healthy breathing exercises, talking to a therapist, working out and walking into nature. Getting enough adequate sleep can also help in building natural infection resistance.</p>
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<p>5.Cena, H., Chiappa, M. (2020)</p>	<p>Looking for prevention and control measures</p>	<p>Experimental Design</p>	<p>500</p>	<p>COVID-19, nutrition, polyphenols, diabetes, incidence, cytokine storm</p>	<p>General advice especially for healthy adults above 50 years of age observance at a time of quarantine and consequently with bounded choice especially for exercise should concentrate on healthy nutritional patterns. Authors suggest paying close awareness to nutrition, which may be devoted to regulating some important outcomes of COVID-19 infection, as a result pro- inflammatory cytokine storms.</p>
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<p>6.Fondazione Policlinico Universitario “Agostino Gemelli” IRCCS, Catholic University of the Sacred Heart, L.go F. Vito 8, 00168 Rome, Italy, Gemelli Against COVID-19 Post-Acute Care Study Group(2020)</p>	<p>The purpose of this object is to relate the significance of the interdisciplinary approach coordinated by geriatricians—to deal with the dynamic post-acute care needs of recovered COVID-19 patients.</p>	<p>Observational design</p>	<p>643</p>	<p>COVID-19, Personalized medicine, Post-acute care, Health care organization</p>	<p>SARS-CoV-2 infection epidemic is a matter of anxiety in the present world. It creates various kinds of difficulties in our human body. Many people are affected and died. The severe phase is confined and little is familiar about mid- and long-term results. In the pandemic situation, proper healthcare services can ensure the rate of death.</p>
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<p>7. Alemano, F., Arcuri, P., Brugliera, I., Castellazzi, P., Cimino, P., Giordani, A., Houdayer, E., Lannaccone, S., Mortini, P., Negro, A., & Spina, A., Sgherza, K. (2020)</p>	<p>The aim is to describe the significance of specific rehabilitation to accomplish respiratory improvement, functional and cognitive recovery, to reduce illness, and to develop comfort.</p>	<p>Observational design</p>	<p>32</p>	<p>Systematic management, Rehabilitation, Artificial Nutrition,</p>	<p>The effectuation of a structural management of the nutritional absorption of COVID-19 patients is mandatory to assure an ideal nutritional status and to evolve clinical outcomes. Other clinical studies are in progress to compose adequate nutritional guidelines. Nutrition is a determining factor for health.</p>
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<p>8. Holland, a., Spruit, M., A., E., Singh, S., J., Ton ia, T., Trooster s, T., & Wilson, K., C. (2020)</p>	<p>The aim is to create interim recommendations for rehabilitation in the hospital and post-hospital phases in COVID-19 and post-COVID-19 patients, respectively.</p>	<p>Exploratory design</p>	<p>93</p>	<p>Rehabilitation, Hospitalization, multidisciplinary rehabilitation, pulmonary rehabilitation</p>	<p>Structure of pulmonary rehabilitation may suit as a framework, especially in a subgroup of patients with long-term respiratory outcomes. This multinational task force suggested earlier, bedside rehabilitation for patients infected by severe COVID-19. The present study contributes agreement-based recommendation for the screening and the rehabilitation process during and after a hospital admission for severe COVID-19 infection</p>
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<p>9.Barazzoni,R., C.Bischoff,S.,C.,Breda,J., Pirlich, M.,Krzniarski,Z., Tzankov,D., Singer,P .& Singer,P (2020)</p>	<p>To know about Management of Nutrition individuals with SARS-CoV-2 infection.</p>	<p>Exploratory design</p>	<p>900</p>	<p>Nutrition intervention, SARS-CoV-2 infection, nutritional management</p>	<p>Nutrition involvement and therapy was required to be taken into account as an essential part of the approach to the patient's sufferer of SARS-CoV-2 infection in the ICU setting, inside the medicine ward setting as well as in general healthcare. At every step of the treatment, diet therapy should be part of patient care, as regards for older adult, fragile and comorbid individuals. Ideal consequences can be improved executing obedience to recommendations to ensure survival of this life-threatening disease as well as better and shorter recovery, particularly but not limited to the post-ICU period.</p>
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<p>10.Asrani, V.Cheng, A., C., Chapple, L., S., Burrell, A., Collins, P., Doola, R., Fetterplace, K., Ferrie, S., Marshall, S., P., &</p>	<p>The aim is to deliver results-based guidance for management of nutrition for critically ill and severely unwell hospitalized patients during the coronavirus disease 2019 (COVID-19) pandemic.</p>	<p>Exploratory design</p>	<p>632</p>	<p>Nutrition management , Global pandemic, Medical therapy</p>	<p>A large number of COVID affected people are admitted to ICU for better treatment. COVID-19 infection reduces the Oxygen saturation of patients and in this case ICU is must for the patients in most of the cases. Medical therapy is needed in the Intensive Care Unit (ICU) where nutrition implications should be considered.</p>
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Interview Guide for the Chief Nutritionist of Imperial Hospital Limited

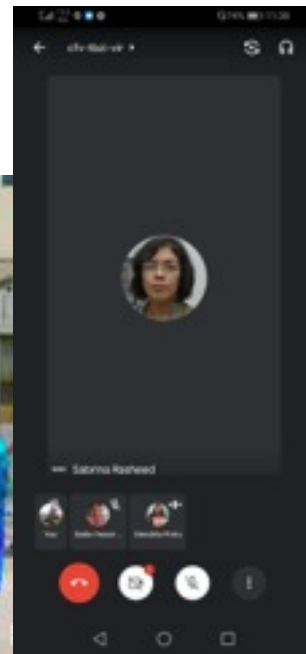
Table 06: Interview Guideline

Domains	Discussion	Remarks
Personal Profile	Education, Specialization, Training etc. Employment history. Current work area.	How the person is related with the treatment of COVID patients.
Relevance	Training for dietary intervention. Secondary data in this regard. Experiments. Practice in Norman patients. Practice in COVID Patients.	From which basis you are giving all of these? Did you feel you trained well for Covid patients? How do you evaluate a new Covid patient's nutritional needs?
Experiences	Number of Patients. Achievements. Critical cases. Protocol being followed.	How many Covid patients get well with your diet? What nutrition advice would you give every Covid patient? How was your experience with Covid patients? Have you ever had a Covid patient who was difficult to work with? How did you handle it?
Conclusion	Overall impression about this interview.	Are you satisfied with your works? Any advice for the researchers in this regard.,

CHAPTER-4

4. PROCEDURE OF INTERNSHIP CLASS

The internship was assigned to the Health System and Population Studies Division (HSPS) at the head office of icddr,b. The internship was successfully completed through online due to this pandemic situation. My topic was Nutritional Management of COVID 19 Patients During and Post Hospitalization Periods. My task was to review literature in my topic. I had done two time classes in a week for 3 months. From these classes I had learned about icddr,b with ongoing research. I had to learn about the way of literature review also in this internship period.



CHAPTER-5

5. A BRIEF OVERVIEW OF QUANTITATIVE RESEARCH

5.1 An Introduction of Quantitative Research

Quantitative Research involves collecting and analyzing numerical data. Statistical, mathematical and computational tools are used for analyzing the data. It is used to search averages, anticipate predictions, and extrapolate outcomes to wider populations.

5.2 Quantitative Research Methods

There are several kinds of methods of qualitative research. These are descriptive research, Survey research, causal-comparative research, experimental research and correlation research. As an example of survey research are online survey, online poll etc. Causal-comparative research method applied to draw conclusion. Experimental research as an example the statement is proved or disproved.

5.3 Advantages of Quantitative Research

1. Involving the statistics.
2. Quick data collection.
3. Understanding behavior is becoming efficient.
4. Wider scope of data analysis
5. Eliminating bias.

5.4 Disadvantages of Quantitative Research

1. Quantitative research sometimes creates unnatural environments.
2. There is no access to specific feedback.
3. Individual characteristics don't always apply to the general population.
4. Quantitative research studies can be very expensive.
5. Doesn't allow social phenomena.

CHAPTER-6

6. QUALITATIVE RESEARCH

6.1 An Introduction of Qualitative Research

In Qualitative research, data that is collected is generally non-numerical in nature. It involves. Analyzing non-numerical data also. There are several identical attributes of qualitative research: Contextual analysis, importance of meaning, researcher as instrument, flexibility of design etc.

6.2 Qualitative Research Method

There are various methods to collect data for qualitative research. As an example individual depth interviews, Concentrate groups, Process of observation.

6.3 Advantages of Qualitative Research

1. It is possible to get an approach.
2. It saves money.
3. It is a content generator.
4. It is a system in such a way that is constantly open-ended.
5. It has flexibility.

6.4 Disadvantages of Qualitative Research

1. It can lose data.
2. It depends on the skills of the researcher.
3. This can be difficult to replicate the result.
4. This can be impressed by researcher bias.
5. It needs several session.

CHAPTER-7

7.1 LESSON LEARNT

Intern learn about this topic during the internship period

1. Skills in written correspondence, growth and outstanding verbal skills.
2. Task project planning and training.
3. Creations of time management abilities.
4. Governance risk assessment and compliance insight
5. Learn about the culture of the sector submitted for study.
6. It helps me to work independently.
7. Using a proper Microsoft office.
8. It helps me to learn problem solving skills.
9. It helps me to learn management of time.
10. Learn about work ethically.

7.2 CHALLENGES

The major challenge was a new Lifestyle for me as an intern. This internship provide a new way of life, helps in future life. The intern sat for eight (8) to nine (9) good hours in a day typing and preparing a student to fulfill strong.

Reports made by the online research project work were done manually sometimes it might be an error. It was very challenging to measure weight and height thoroughly and make sure the problem identified about this work. Students could not keep their patience during the measurement time. It was quite challenging to convince the school authority, friends and parents. The mother brings out their baby problem associated with the health problem.

7.3 CONCLUSION

This internship period was totally an immense accomplishment for the intern. The internship program assists the intern to have a good understanding of the practical problem solving in the research environment and to ensure the recognition of the question. The internship program actually offered a real-life understanding and disclosure that has been enlightened in real life circumstances to the application of theories.

From this internship period, I have gained a lot of knowledge, especially in the field of research, how to be best through work and how to design a project. I was fortunate enough to have learned through my work experiences at icddr,b.

I am expressing my heartfelt gratitude to the management of icddr,b in particular Dr. Sabrina Rasheed, Associate Scientist, and all the staff of icddr,b. I have considered this opportunity as a massive turning point in my career growth. The management of icddr,b keeps me under careful, appropriate and exquisite guidance that was very useful and important for my analysis of research work.

7.4 RECOMMENDATION

Due to COVID-19 I do an internship online at icddr,b. From this internship I gained a lot of new things and it will be very beneficial for my future. I experienced many challenges through this internship. My supervisor and their co-workers of icddr,b was very helpful to us. They always try to teach new things.

If I can go to the field that will be more beneficial. But I am totally satisfied to do an internship at icddr,b. It is a well-known international health research organization. For research icddr,b is the best way. Students will be a good fit for an internship at icddr,b. So I recommend my juniors to do an internship at icddr,b.

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