Textbook of
Nursing Foundations PHYGITAL

Based on INC Syllabus 2021-22

I & II
Semesters

Textbook of
Nursing Foundations
for BSc Nursing Students

As per the Revised INC Syllabus (2021-22) for BSc Nursing

What's **New** in this Edition?

- Written by senior most faculty with more than 40 years of teaching experience
- Reviewed by **50+** most senior nursing faculties PAN India
- Covers Nursing Foundation I and II
- A thoroughly updated and revised edition
- A perfect amalgamation of theoretical and clinical aspects
- **500+** Photographs, Illustrations and Tables covered
- **100+** Skill procedures with rationales of nursing practices included
- **500+** Subjective and Objective Questions
- New chapters added on *First Aid* and *Diagnostic Techniques*
- **5+** OSCE Stations

3rd Edition

CBS Publishers & Distributors Pvt. Ltd.

Harindarjeet Goyal

Textbook of
Nursing Foundations
for BSc Nursing Students

As per the Revised INC Syllabus (2021-22) for BSc Nursing

Nursing Knowledge Tree

Third Edition

Harindarjeet Goyal PhD, MPhil, MSc (MSN), BSc (Hons.), RN, RM

Former Principal

Rajkumari Amrit Kaur College of Nursing

New Delhi

CBSPD

CBS Publishers & Distributors Pvt Ltd

• New Delhi • Bengaluru • Chennai • Kochi • Kolkata • Lucknow • Mumbai
• Hyderabad • Jharkhand • Nagpur • Patna • Pune • Uttarakhand

ISBN: 978-93-94525-68-9

Third Edition: 2025

Second Edition: 2022

First Edition: 2020

Published by **Satish Kumar Jain** and produced by **Varun Jain** for

CBS Publishers & Distributors Pvt Ltd

4819/XI Prahlad Street, 24 Ansari Road, Daryaganj, New Delhi 110 002, India.
Ph: +91-11-23289259, 23266861, 23266867 Website: www.cbspd.com
Fax: 011-23243014
e-mail: delhi@cbspd.com; cbspubs@airtelmail.in.

Corporate Office: 204 FIE, Industrial Area, Patparganj, Delhi 110 092
Ph: +91-11-4934 4934 Fax: 4934 4935
e-mail: feedback@cbspd.com; bhupesharora@cbspd.com

Branches

- **Bengaluru:** Seema House 2975, 17th Cross, K.R. Road, Banasankari 2nd Stage, Bengaluru 560 070, Karnataka
  Ph: +91-80-26771678/79 Fax: +91-80-26771680 e-mail: bangalore@cbspd.com
- **Chennai:** 7, Subbaraya Street, Shenoy Nagar, Chennai 600 030, Tamil Nadu
  Ph: +91-44-26680620, 26681266 Fax: +91-44-42032115 e-mail: chennai@cbspd.com
- **Kochi:** 68/1534, 35, 36-Power House Road, Opp. KSEB, Cochin-682018, Kochi, Kerala
  Ph: +91-484-4059061-65 Fax: +91-484-4059065 e-mail: kochi@cbspd.com
- **Kolkata:** Hind Ceramics Compound, 1st floor, 147, Nilganj Road, Belghoria, Kolkata-700056, West Bengal
  Ph: +033-2563-3055/56 e-mail: kolkata@cbspd.com
- **Lucknow:** Basement, Khushnuma Complex, 7-Meerabai Marg, (Behind Jawahar Bhawan), Lucknow-226001, Uttar Pradesh
  Ph: +0522-4000032 e-mail: tiwari.lucknow@cbspd.com
- **Mumbai:** PWD Shed, Gala No. 25/26, Ramchandra Bhatt Marg, Next to J.J. Hospital Gate No. 2, Opp. Union Bank of India, Noor Baug, Mumbai-400009, Maharashtra
  Ph: +91-22-66661880/89 Fax: +91-22-24902342 e-mail: mumbai@cbspd.com

Representatives

• **Hyderabad**	+91-9885175004	• **Jharkhand**	+91-9811541605	• **Nagpur**	+91-9421945513
• **Patna**	+91-9334159340	• **Pune**	+91-9623451994	• **Uttarakhand**	+91-9716462459

Printed at:

CBS Nursing Knowledge Tree

Extends its Tribute to

Florence Nightingale

For glorifying the role of women as nurses,
For holding the title of " The Lady with the Lamp,"
For working tirelessly for humanity–
Florence Nightingale will always be
remembered for her
selfless and memorable services to the
human race.

Florence Nightingale
(May 1820 – August 1910)

About the Author

Harindarjeet Goyal *[PhD, MPhil, MSc (MSN), BSc (Hons.), RN, RM]*, is a former Principal, Rajkumari Amrit Kaur College of Nursing, New Delhi. She held numerous positions, viz. Clinical Instructor, Tutor, Assistant Professor, Associate Professor, Professor-cum-Vice Principal and Officiating Principal, during her illustrious career spanning over 44 years.

She received her BSc (Hons.) degree from Rajkumari Amrit Kaur College of Nursing affiliated to University of Delhi in the year 1975. Thereafter, she taught Nursing Foundations and Medical Surgical Nursing to undergraduate students. She pursued her MSc (N) from the same college and continued as faculty member.

Her interest and experience in nursing education resulted in her obtaining MPhil and PhD degrees in Nursing from Delhi University in 2008. She was offered WHO Fellowship on Critical Care Nursing for three months at Baltimore, University of Maryland Medical System, USA in the year 1994. In the year 2004, she was offered another WHO Fellowship on ART for AIDS at Thailand in Bangkok for four-week duration.

The author has written many learning modules for Distance Education Learning Program for Post Basic BSc nursing students. She has also actively participated in curriculum revision of Baccalaureate and Master of Nursing programs. Besides, she has presented many papers at national and international levels on the topics related to nursing education. She is a member of nursing associations, such as TNAI, NRSI, etc. The author is also involved in guiding PhD students enrolled under INC consortium affiliated to Rajiv Gandhi University of Health Sciences, Bengaluru, Karnataka.

Preface to the Third Edition

Nursing is a profession grounded in both compassion and precision, demanding a unique blend of theoretical knowledge and practical expertise. As the healthcare environment grows increasingly complex, the need for well-prepared nurses who can deliver high-quality care has never been greater. It is with this understanding that I present the new edition of the *Textbook of Nursing Foundations*, designed to be an essential resource for educators, mentors, and students alike.

This textbook has been meticulously organized to align with the latest Indian Nursing Council (INC) syllabus for BSc Nursing. It is structured to meet the learning requirements necessary for preparing nurses at both the graduate and postgraduate levels. The goal is to provide a comprehensive foundation for patient care, equipping nursing students with the skills and confidence needed to excel in their profession.

An integral part of nursing education involves the seamless integration of theoretical knowledge and practical skills. This book addresses both aspects extensively, ensuring that students not only understand the concepts but can also apply them effectively in clinical settings. The content is systematically framed and logically sequenced to enhance the learning experience, enabling students to develop the dexterity required for competent nursing practice.

The text is presented in a concise, clear, and straightforward manner, using simple terminologies that make complex ideas accessible. Each nursing skill and procedure is outlined in a tabular format, following the standard nursing process approach—Assessment, Planning, Implementation, and Evaluation—complete with rationales and documentation guidelines. This structured approach ensures that students can master each step with confidence and clarity.

In this edition, new sections have been introduced, covering First Aid, Diagnostic Techniques, and Rehabilitation in greater detail. These additions represent a significant enhancement, providing students with a broader understanding of essential aspects of nursing care that were not as comprehensively addressed in previous editions.

Each chapter follows a consistent format, beginning with an introduction to the topic, followed by detailed procedures and their rationales. This systematic approach not only aids in understanding but also reinforces the practical application of knowledge, making this textbook an indispensable tool for nursing education.

I am confident that this edition will serve as a valuable resource for both budding and practicing nurses, helping them build their competence and confidence. It is my hope that readers will find this book as engaging and enlightening as I did while writing it. Your feedback is always welcome as we continue to strive for excellence in nursing education.

Harindarjeet Goyal

Preface to the First Edition

Keeping in mind the challenges that today's nurses confront with, it becomes imperative to provide them necessary skills of compassionate nursing care in a variety of healthcare settings, which they could apply for patients in the various stages of illness. At the same time, there are ample opportunities for health promotion activities for individuals and groups; this is an integral part of providing nursing care.

It gives me immense pleasure and satisfaction to introduce and present the title, **Textbook of Nursing Foundations**. The book is specifically designed for the nursing education in Asia to prepare nurses to think critically and practice collaboratively within today's challenging and complex healthcare delivery system.

Healthcare is an exciting and challenging field with plenty of opportunities and advancements. The entire healthcare system reverberates with change. The role of nurses in this system is expanding and extending, hence the process of embracing changes inevitably requires adaptation and a constant demand for literary excellence. This textbook has been developed comprehensively with an incredible outlook to help nurses develop their clinical skills which are the fundamental aspects of nursing care.

Training is an integral part of the nursing profession. A nurse must possess a strong theoretical base as well as practical skills. This book will act as a standard prescription for educators and mentors to teach and demonstrate the clinical nursing procedures to budding and practicing nurses. The text has been developed keeping in mind the clinical requirements of a student nurse at all levels of nursing education.

I hope, as a reader, you will enjoy reading the book as much as I enjoyed writing it. Constructive criticism from the readers is always welcome to improve upon in further edition. Happy Reading!

Harindarjeet Goyal

Acknowledgments

Writing a book of this standard demands lots of patience, and focus. I am fortunate enough to have support of many people who helped me in this endeavor.

I want to thank them all who trusted and supported me with their encouragement throughout.

- Fundamentals of Nursing department consisting of Mrs Madhumita Dey, Mrs Usha Phulara, Mrs Rekha Kotnala and Mrs Monika Sharma. They contributed toward many procedures which were carried out in the lab.
- My husband, Mr Ramesh Goyal who had been my source of inspiration to handle the project from beginning till the end.
- My daughters, Charu, Khyati and Khushboo who extended their support and patience throughout.

Last but not least, I extend my special thanks to **Mr Satish Kumar Jain** (Chairman) and **Mr Varun Jain** (Managing Director), M/s CBS Publishers and Distributors Pvt Ltd for their wholehearted support in publication of this book. I have no words to describe the role, efforts, inputs and initiatives undertaken by **Mr Bhupesh Aarora** [Sr. Vice President – Publishing & Marketing (Health Sciences Division)] for helping and motivating me.

I sincerely thank the entire CBS team for bringing out the book with utmost care and attractive presentation. I would like to thank Ms Nitasha Arora (Assistant General Manager Publishing – Medical and Nursing), Ms Daljeet Kaur (Assistant Publishing Manager) and Dr Anju Dhir (Sr. Product Manager and Medical Development Editor) for their publishing support. I would also extend my thanks to Mr Shivendu Bhushan Pandey (Sr. Manager and Team Lead), Ms Surbhi Gupta (Sr. English Editor), Mr Ashutosh Pathak (Sr. Proofreader cum Team Coordinator) and all the production team members for devoting laborious hours in designing and typesetting the book.

Reviewers

A Tamil Selvi
MSc (N), PhD (N), RN, RM
Principal
Amity College of Nursing, Amity University
Gurugram, Haryana

Amandeep Kaur, RN, RM
MSc (Medical Surgical Nursing, Neurosciences)
Assistant Professor cum Simulation Lab Training Officer
National Reference Simulation Center
SGT University
Gurugram, Haryana

Anil Kumar Mandalia
MSc (MSN)
Principal
Government College of Nursing
Bhavnagar, Gujarat

Arshid Nazir Shah
PhD (PG), Pediatric Nursing Diploma in Nursing Administration (DNA)
Assistant Professor
Government Nursing College, GMC
Baramula, Jammu, J&K

Banita Rana
MSc (N) OBG Nursing
Nursing Tutor
Shri Mata Vaishno Devi College of Nursing
Katra, Jammu and Kashmir

Blessymol Joseph
MSc Nursing (Child Health Nursing)
Professor
S.H. College of Nursing
Green Gardens, Cherthala, Kerala

Christal Jeba Sheela Ahimas
MSc (N) Medical Surgical Nursing
Principal
Indira Gandhi College of Nursing
Gandhi Nagar, Kadavanthra, Kochi

Daisy Thomas
MSc (N), PhD (N), RN, RM
Acting Vice-Principal
Raj Kumari Amrit Kaur College of Nursing
University of Delhi
New Delhi

Dayalal D Patidar
Principal and Ex. Dean of Faculty of Medicine of HNGU
Joitiba College of Nursing
Visnagar, Mehsana, Gujarat

Gaurav Tyagi
MSc (N) Community Health Nursing
Vice Principal
KMC College of Nursing
Meerut, Uttar Pradesh

Iqbal Majid Dar
MSc (N) Psychiatric Nursing
Tutor
Government College of Nursing (MA Road)
Srinagar, J&K

Jamal Fatima Hashmi
MSc (N) Mental Health & Psychiatric Nursing
Assistant Professor
Rufaida College of Nursing
Jamia Hamdard, New Delhi

JC Frank
MSc (N) Community Health Nursing
Professor cum Principal
BEE ENN College of Nursing
Jammu, J&K

Joy Gamadia
BSc (N), MSc (N) Medical Surgical Nursing
PhD (Scholar)
Professor cum Principal
Narnarayan Shastri Institute of Nursing
Jetalpur, Ahmedabad, Gujarat

The names of the reviewers are arranged in an alphabetical order.

Kiran Batra
PhD (Public Administration)
MSc (N) Medical Surgical Nursing,
MA (Public Administration), BSc (N)
Principal
Mata Sahib Kaur College of Nursing
Mohali, Punjab

Latha Damodaran
MSc (OBG Nursing)
Principal
SIMET College of Nursing, Nooranad
Alappuzha, Kerala

M Annakamatchi
MSc (OBG Nursing)
Professor cum Vice Principal
AR College of Nursing
Tenkasi, Tamil Nadu

Mallika Faruk Vhora
MSc (N) MSN, PhD (N) Scholar
Principal
Tirupati School of Nursing
Sharda Mandir School Campus, Salatwada
Vadodara, Gujarat

Manohari Sivakumar
MSc (N)
Principal
Saraswathi College of Nursing
Hapur, Uttar Pradesh

Mohd. Suhail Jogi
MSc (N) Psychiatric & Mental Health Nursing
Nursing Officer
SKIMS (MMINSR)
Srinagar, J&K

Mukesh Tetarwal
MSc (N) Medical Surgical Nursing
Principal
Government Nursing College
Jodhpur, Rajasthan

N Baba Subramanyam
MSc (N), M Phil (N), PhD (N)
Community Health Nursing
Principal
Ambika Group of Colleges
Mohali, Punjab

Narinder Kaur Walia
BSc, MSc, PhD (N)
Associate Professor
All India Institute of Medical Sciences
Bhatinda, Punjab

Naveena JH
PhD (N), MSc (N) Community Health Nursing
Vice Principal cum Professor
Government College of Nursing,
GSVM Medical College Campus,
Kanpur, Uttar Pradesh

Neeraj Kumar Bansal
PhD (N), MSc (N) Medical Surgical Nursing
Vice Principal
Government College of Nursing,
BRD Medical College
Gorakhpur, Uttar Pradesh

Nobel Sharma
MSc (N) Medical Surgical Nursing
Chairperson
Naina College of Nursing
Mandi, Himachal Pradesh

Poonam Sharma
MSc (N) Maternal Health Nursing
Principal
Gautam College of Nursing
Hamirpur, Himachal Pradesh

Prakash Bishnoi
MSc (N) Medical Surgical Nursing
Nursing Superintendent
Subdivision Railway Hospital
Abu Road, Rajasthan

Prathiba Manoharam B
PhD (N), MSc (N) Child Health Nursing
Principal
Keshlata College of Nursing
Bareilly, Uttar Pradesh

Prema Balusamy
PhD (N), MSc (N) Community Health Nursing
Assistant Professor
Department of Nursing
College of Applied Medical Sciences
University of Hafr-Al-Batin
Kingdom of Saudi Arabia

The names of the reviewers are arranged in an alphabetical order.

Priyesh M Bhanwara
PhD (N)
Principal
Kamdar College of Nursing
Rajkot, Gujarat
Vice President Nursing Scholar Society of India

Rajesh Kumar Sharma
MSc (N) Medical Surgical Nursing PhD (N)
Professor & Head
Department of Critical Care Nursing
Himalayan College of Nursing
Swami Rama Himalayan University
Dehradun, Uttarakhand

Ranu Bag
MSc (N) Medical Surgical Nursing
Principal
Gouri Devi Nursing Academy
Durgapur, West Bengal

Ravindra HN
PhD (N), MA (Sociology), M. Phil (Healthcare Administration/management)
Principal
Parul Institute of Nursing
Parul University
Waghodia, Vadodara, Gujarat

Rehana
MSc (N) Community Health Nursing
Tutor
Government College of Nursing
(Shreen Bagh)
Srinagar, J&K

Rekha Anil Kumar
MSc (N) Mental Health Nursing, PhD (N)
Certified Mindfulness Coach
Vice President TNAI (Training Nursing Association of India), Delhi
Faculty and CNE Coordinator
College of Nursing
Dr Ram Manohar Lohia Hospital
New Delhi

Rohi Jan
MSc (N) Community Health Nursing
Nursing Tutor
Alamdar Memorial College of Nursing & Medical Technology, Chrar-i-Sharif
Srinagar, J&K

Roohi Jan
MSc (N) Community Health Nursing
Nursing Tutor
Syed Mantaqui Memorial College of Nursing and Medical Technology
IUST Awantipora, J&K

Shama Lohumi
MSc (N) Community Health Nursing
MA (English Literature), PhD (Psychology)
Principal
Shivalik Institute of Nursing
Shimla, Himachal Pradesh

Shany Vincent
MSc (N) Medical Surgical Nursing
Associate Professor & HOD of Nursing Foundations
KVM College of Nursing
Cherthala, Kerala

Shazia
MSc (OBG Nursing)
Assistant Professor
Bibi Halima College of Nursing & Medical Technology
Srinagar, J&K

Sheeshpal Chauhan
MSc (N) Psychiatric Nursing
Principal
Florence College of Nursing
Faridabad, Haryana

Shipra Sachan
MSc (OBG Nursing)
Assistant Professor
Rama College of Nursing
Rama University
Kanpur, Uttar Pradesh

Siva Jeya Anand T
PhD (N), MSc (N) Medical Surgical Nursing, MA (Sociology, Public Administration)
Vice Principal
Chitra College of Nursing
M C Road, Pandalam
Pathanamthitta, Kerala

R Sridevi Veerawal
RN, RM, MSc (N) PhD (N)
Principal
EGS Pillay College of Nursing
Nagapattinam, Kerala

Sripriya Gopalkrishnan
RN, RM, MSc (N) Medical Surgical Nursing
PhD (N), PGDM (HR)
Professor Cum Principal
Sadhu Vaswani College of Nursing
Pune, Maharashtra

The names of the reviewers are arranged in an alphabetical order.

Sunita Lawrence
PhD (N), MSc (OBG Nursing)
(Received National Florence Nightingale Award–2019)
Principal
Pragyan College of Nursing
Bhopal, Madhya Pradesh

Syed Shahid Siraj
MSc (N) Psychiatric & Mental Health Nursing
Nursing Tutor
Alamdar Memorial College of Nursing & Medical Technology
Chrar-i-Sharif, Srinagar, J&K

Virendra Jain
PhD (N), MSc (MSN)
Principal
Dinsha Patel College of Nursing
College Road, Nadiad
Nadiad, Gujarat

Vishranti B Giri
MSc (OBG Nursing)
Nursing Tutor
College of Nursing, Government Medical College and Hospital
Aurangabad, Maharashtra

Yogeshwar Puri Goswami
MSc (N)
Principal
Geetanjali College of Nursing
Udaipur, Rajasthan

The names of the reviewers are arranged in an alphabetical order.

From the Publisher's Desk

Dear Reader,

Nursing Education has a rich history, often characterized by traditional teaching techniques that have evolved over time. Primarily, teaching took place within classroom settings. Lectures, textbooks, and clinical rotations were the core teaching tools; and students majorly relied on textbooks by local or foreign publishers for quality education. However, today, technology has completely transformed the field of nursing education, making it an integral part of the curriculum. It has evolved to include a range of technological tools that enhance the learning experience and better prepare students for clinical practice.

As publishers, we've been contributing to the field of Medical Science, Nursing and Allied Sciences and earned the trust of many. By supporting **Indian authors**, coupled with **nursing webinars and conferences**, we have paved an easier path for aspiring nurses, empowering them to excel in national and state level exams. With this, we're not only enhancing the quality of patient care but also enabling future nurses to adapt to new challenges and innovations in the rapidly evolving world of healthcare. Following the ideology of **Bringing learning to people instead of people going for learning**, so far, we've been doing our part by:

- Developing quality content by qualified and well-versed authors
- Building a strong community of faculty and students
- Introducing a smart approach with Digital/Hybrid Books, and
- Offering simulation Nursing Procedures, etc.

Innovative teaching methodologies, such as modern-age Phygital Books, have sparked the interest of the Next-Gen students in pursuing advanced education. The enhancement of educational standards through **Omnipresent Knowledge Sharing Platforms** has further facilitated learning, bridging the gap between doctors and nurses.

At Nursing Next Live, a sister concern of CBS Publishers & Distributors, we have long recognized the immense potential within the nursing field. Our journey in innovating nursing education has allowed us to make substantial and meaningful contributions. With the vision of strengthening learning at every stage, we have introduced several plans that cater to the specific needs of the students, including but not limited to **Plan UG** for undergraduates, **Plan MSc** for postgraduate aspirants, **Plan FDP** for upskilling faculties, **SDL** for integrated learning and **Plan NP** for bridging the gap between theoretical & practical learning. Additionally, we have successfully completed seven series of our **Target High** Book in a very short period, setting a milestone in the education industry. We have been able to achieve all this just with the sole vision of laying the foundation of diversified knowledge for all. With the rise of a new generation of educated, tech-savvy individuals, we anticipate even more remarkable advancements in the coming years.

We take immense pride in our achievements and eagerly look forward to the future, brimming with new opportunities for innovation, growth and collaborations with experienced minds such as yourself who can contribute to our mission as Authors, Reviewers and/or Faculties. Together, let's foster a generation of nurses who are confident, competent, and prepared to succeed in a technology-driven healthcare system.

Mr Bhupesh Aarora
(Sr Vice President – Publishing & Marketing)
bhupeshaarora@cbspd.com| +91 95553 53330

Special Features of the Book

LEARNING OBJECTIVES

After the completion of the chapter, the readers will be able to:

- Define health and its changing concepts.
- Describe the health-illness continuum.
- Enumerate the various factors influencing health.

Learning Objectives in the beginning of every Chapter help readers understand the purpose of the chapter.

Chapter Outline gives a glimpse of the content covered in the entire chapter.

CHAPTER OUTLINE

Concept of Health and Disease
Changing Concepts of Health
Health-Illness Continuum
Factors Influencing Health
Illness and Illness Behavior
Dimensions of Health and Illness

KEY TERMS

Agent: It is the first link in the chain of disease transmission, it can be Biological agent, Nutritional agent, Chemical agent, Physical agent and Social agent.

Biomedical concept: Traditionally health has been viewed as "absence of disease". If any person is free from disease, he/she is considered healthy. This concept is known as biomedical concept and is based on germ theory of disease.

Key Terms are added in each chapter to help students understand difficult scientific terms in easy language.

The book is well-illustrated with 500+ fully **Colored Images and Illustrations** for easy grasp of the relevant topic.

Fig. 1.4: The human dimension. All of these interdependent parts compose the whole person.

TABLE 2.1: Examples of health promotion activities

Level	Topic
Primary	Weight loss, diet, exercise, smoking cessation alcohol consumption, drugs, seat belts and child safety belts/seats, immunization, safe sex practices
Secondary	Screenings (blood pressure, cholesterol, glaucoma) pap smear, mammogram, testicular examination
Tertiary	Medications, surgical and medical treatment, rehabilitation, physical therapy, occupational therapy

Numerous **Tables** are used to clarify the concept and make the reading enjoyable and informative.

Information **Boxes** have been supplemented throughout the book to facilitate extra knowledge.

Box 3.1

Examples of levels of healthcare services

Primary care (health promotion)

- Prenatal care
- Nutritional care
- Well-baby care
- Family planning

Alert: Never press both carotids at the same time because this can cause a reflex drop in blood pressure or pulse rate.

This extra feature makes the readers aware of Do's and Don'ts in Nursing profession.

100+ **skill procedures** supplemented with theory for better understanding of their implementation in clinical settings.

SKILL: HANDWASHING

Equipment/Articles

Articles	Rationale
Soap in a soap dish	Soap contains antibacterial agents and has a lasting bacteriostatic effect.
Nail brush	To clean nails
Running water	To rinse soap thoroughly while washing hands
Towel	To dry hands

BIBLIOGRAPHY

- Christensen BL, Kockrow EO. Foundations of Nursing, 4th edition. Mosby's; St Louise, Missouri; 1999. p. 435, 439, 442.
- Lewis LW. Fundamental Skills in Patient Care, 2nd edition. Lippincott Williams and Wilkins. p. 308-10.
- Perry AG, Potter PA. Basic Nursing Essentials for Practice, 5th edition. Elsevier Publications; 2003. p. 1618, 1624.

At the end of every chapter, **Bibliography** has been added for further reference to enhance knowledge.

SUMMARY

- Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity (WHO 1948). Various dimensions of heath are: Physical health, Mental health, Social health and Spiritual health.
- Illness can be defined as a state of poor health or disease in an individual. It refers to a deviation from the normal functioning of the body or mind, resulting in physical or mental discomfort, impairment, or dysfunction.
- Illness can be categorized into acute Illnesses and chronic illnesses.

Important takeaway points of respective chapters have been highlighted under **Summary** boxes.

STUDENT ASSIGNMENT

LONG ANSWER QUESTIONS

1. Explain health illness continuum.
2. What are modifiable and nonmodifiable risk factors for causing disease?
3. Explain dimensions of health and illness.

SHORT ANSWER QUESTIONS

1. Define health according to WHO.
2. What is epidemiological triad of causation of disease?
3. What are physiological needs propounded by Maslow?

MULTIPLE CHOICE QUESTIONS

1. **"Health can be defined as a series of successful and continuous adaptations to a constantly changing environment." This appears more realistic and complete since health is:**
   a. Static
   b. Dynamic
   c. Optimal
   d. Holistic

Detailed **Student Assignment** in the form of exercises in each and every chapter will facilitate structured learning and revision of the material provided in the respective chapters.

To give an extra edge to book from the practical point of view, **OSCE** station has been covered in a separation section.

Station 1 Health Assessment

1. OSCE Checklist: Cardiac auscultation

Sl. no.	Steps of procedure	Yes	No
1.	Perform hand hygiene		
2.	Introduce yourself and explain the procedure to the patient		
3.	Adjust the head of the bed to a 45° angle		
4.	Adequately expose the patient		
5.	Inspect jugular veins distension		
6.	Place stethoscope diaphragm on auscultation areas and listen for: **Aortic area:** Right second intercostal space near the sternum.		
7.	**Pulmonary area:** Left second intercostal space near the sternum.		
8.	**Tricuspid area:** Left third, fourth, and fifth intercostal spaces near the sternum.		
9.	**Mitral area:** Left fifth intercostal space, in the mid-clavicular line.		
10.	Perform hand hygiene		
11.	Count the apical pulse		
12.	Check heart sounds		
13.	Document the findings		

APPENDICES

APPENDIX I

REHABILITATION

Rehabilitation is a dynamic health related process that assists an ill or disabled individual to achieve the greatest possible level of physical, mental, spiritual, social and economic functioning. The rehabilitation process helps the person to achieve an acceptable quality of life with dignity, self-respect and independence. Rehabilitation programs are designed for individuals with physical, mental and emotional disabilities. During rehabilitation, the individual is assisted to adjust to the disability by learning how to use resources and to focus on existing abilities.

Appendices provide additional but valuable information related to topics discussed in the book.

Syllabus

Nursing Foundation I

Placement: Ist Semester **Theory: 6 Credits (120 hours)**

Practicum: Skill Lab: 2 Credits (80 hours) and Clinical: 2 Credits (160 hours)

Course description: This course is designed to help novice nursing students develop knowledge and competencies required to provide evidence-based, comprehensive basic nursing care for adult patients, using nursing process approach.

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
I	5 (T)	Describe the concept of health and illness	**Introduction to Health and Illness** • Concept of Health—Definitions (WHO), Dimensions • Maslow's hierarchy of needs • Health—Illness continuum • Factors influencing health • Causes and risk factors for developing illnesses • Illness—Types, illness behavior • Impact of illness on patient and family	• Lecture • Discussion	• Essay • Short answer • Objective type
II	5 (T)	Describe the levels of illness prevention and care, healthcare services	**Healthcare Delivery Systems** *Introduction of Basic Concepts & Meanings* • Levels of illness prevention—primary (health promotion), secondary and tertiary • Levels of care—primary, secondary and tertiary • Types of healthcare agencies/services—hospitals, clinics, hospice, rehabilitation centers, extended care facilities • Hospitals—types, organization and functions • Healthcare teams in hospitals—members and their role	• Lecture • Discussion	• Essay • Short answer • Objective type
III	12 (T)	• Trace the history of nursing • Explain the concept, nature and scope of nursing • Describe values, code of ethics and professional conduct for nurses in India	**History of Nursing and Nursing as a Profession** • History of nursing, history of nursing in India • Contributions of Florence Nightingale • Nursing—definition—nurse, nursing, concepts, philosophy, objectives, characteristics, nature and scope of nursing/nursing practice, functions of nurse, qualities of a nurse, categories of nursing personnel • Nursing as a profession—definition and characteristics/criteria of profession • Values—Introduction—meaning and importance • Code of ethics and professional conduct for nurses—introduction	• Lecture • Discussion • Case discussion • Role plays	• Essay • Short answers • Objective type

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
IV	8 (T) 3 (SL)	• Describe the process, principles, and types of communication • Explain therapeutic, nontherapeutic and professional communication • Communicate effectively with patients, their families and team members	**Communication and Nurse Patient Relationship** • Communication—levels, elements and process, types, modes, factors influencing communication • Methods of effective communication/ therapeutic communication techniques • Barriers to effective communication/non-therapeutic communication techniques • Professional communication • Helping relationships (nurse–patient relationship)—purposes and phases • Communicating effectively with patient, families and team members • Maintaining effective human relations and communication with vulnerable groups (children, women, physically and mentally challenged and elderly)	• Lecture • Discussion • Role play and video film on therapeutic communication	• Essay • Short answer • Objective type
V	4 (T) 2 (SL)	• Describe the purposes, types and techniques of recording and reporting • Maintain records and reports accurately	**Documentation and Reporting** • Documentation—purposes of reports and records • Confidentiality • Types of client records/common record-keeping forms • Methods/systems of documentation/ recording • Guidelines for documentation • Do's and Don'ts of documentation/legal guidelines for documentation/recording • Reporting—change of shift reports, transfer reports, incident reports	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type
VI	15 (T) 20 (SL)	• Describe principles and techniques of monitoring and maintaining vital signs • Assess and record vital signs accurately	**Vital Signs** Guidelines for taking vital signs • *Body temperature*— ▪ Definition, physiology, regulation ▪ Factors affecting body temperature ▪ Assessment of body temperature—sites, equipment and technique ▪ Temperature alterations—hyperthermia, heat cramps, heat exhaustion, heatstroke, hypothermia ▪ Fever/pyrexia—definition, causes, stages, types • Nursing management ▪ Hot and cold applications • *Pulse*: ▪ Definition, physiology and regulation ▪ Characteristics, factors affecting pulse ▪ Assessment of pulse—sites, equipment and technique ▪ Alterations in pulse	• Lecture • Discussion • Demonstration and redemonstration	• Essay • Short answer • Objective type • Document the given values of temperature, pulse, and respiration in the graphic sheet • OSCE

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			• *Respiration:* ▪ Definition, physiology and regulation, mechanics of breathing, characteristics factors affecting respiration ▪ Assessment of respirations—technique ▪ Arterial oxygen saturation ▪ Alterations in respiration • *Blood pressure*: ▪ Definition, physiology and regulation characteristics, factors affecting BP ▪ Assessment of BP—sites, equipment and technique, common errors in BP assessment ▪ Alterations in blood pressure • Documenting vital signs		
VII	3 (T)	Maintain equipment and linen	**Equipment and Linen** • Types—disposables and reusable ▪ Linen, rubber goods, glassware, metal, plastics, furniture • Introduction—indent, maintenance, Inventory		
VIII	10 (T) 3 (SL)	Describe the basic principles and techniques of infection control and biomedical waste management	**Introduction to Infection Control in Clinical Setting Infection** • Nature of infection • Chain of infection • Types of infection • Stages of infection • Factors increasing susceptibility to infection • Body defenses against infection—inflammatory response and immune response • Healthcare associated infection (nosocomial infection) **Introductory Concept of Asepsis—Medical and Surgical Asepsis** ***Precautions*** • Hand hygiene (hand washing and use of hand rub) • Use of personal protective equipment (PPE) • Standard precautions ***Biomedical Waste Management*** Types of hospital waste, waste segregation and hazards—introduction	• Lecture • Discussion • Demonstration • Observation of autoclaving and other sterilization techniques • Video presentation on medical & surgical asepsis	• Essay • Short answer • Objective type
IX	15 (T) 15 (SL)	Identify and meet the comfort needs of the patients	**Comfort, Rest and Sleep and Pain** • Comfort ▪ Factors influencing comfort ▪ Types of beds including latest beds, purposes and bed making ▪ Therapeutic positions ▪ Comfort devices	• Lecture • Discussion • Demonstration and redemonstration	• Essay • Short answer • Objective type • OSCE

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			• Sleep and rest ▪ Physiology of sleep ▪ Factors affecting sleep ▪ Promoting rest and sleep ▪ Sleep disorders • Pain (discomfort) ▪ Physiology ▪ Common cause of pain ▪ Types ▪ Assessment—pain scales and narcotic scales • Pharmacological and nonpharmacological pain relieving measures—use of narcotics, TENS devices, PCA • Invasive techniques of pain management • Any other newer measures • Complementary and Alternative Healing Modalities (CAM)		
X	5 (T) 3 (SL)	Describe the concept of patient environment	**Promoting Safety in HealthcAre Environment** • Physical environment—temperature, humidity, noise, ventilation, light, odor, pest control • Reduction of physical hazards—fire, accidents • Fall risk assessment • Role of nurse in providing safe and clean environment • Safety devices: ▪ Restraints—types, purposes, indications, legal implications and consent, application of restraints-skill and practice guidelines ▪ Other safety devices—side rails, grabbars, ambu alarms, nonskid slippers, etc.	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type
XI	6 (T) 2 (SL)	Explain and perform admission, transfer, and discharge of a patient	**Hospital Admission and Discharge** • Admission to the hospital unit and preparation of unit ▪ Admission bed ▪ Admission procedure ▪ Medico-legal issues ▪ Roles and responsibilities of the nurse • Discharge from the hospital ▪ Types—planned discharge, LAMA and abscond, referrals and transfers ▪ Discharge planning ▪ Discharge procedure ▪ Medico-legal issues ▪ Roles and responsibilities of the nurse ▪ Care of the unit after discharge	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
XII	8 (T) 10 (SL)	Demonstrate skill in caring for patients with restricted mobility	**Mobility and Immobility** • Elements of normal movement, alignment and posture, joint mobility, balance, coordinated movement • Principles of body mechanics • Factors affecting body alignment and activity • Exercise—types and benefits • Effects of immobility • Maintenance of normal body alignment and activity • Alteration in body alignment and mobility • Nursing interventions for impaired body alignment and mobility—assessment, types, devices used, method ▪ Range of motion exercises ▪ Muscle strengthening exercises ▪ Maintaining body alignment—positions ▪ Moving ▪ Lifting ▪ Transferring ▪ Walking • Assisting clients with ambulation • Care of patients with immobility using nursing process approach • Care of patients with casts and splints	• Lecture • Discussion • Demonstration redemonstration	• Essay • Short answer • Objective type • OSCE
XIII	4 (T) 2 (SL)	Describe the principles and practice of patient education	**Patient Education** • Patient teaching—importance, purposes, process • Integrating nursing process in patient teaching	• Discussion • Role plays	• Essay • Short answer • Objective type
XIV	20 (T) 20 (SL)	Explain and apply principles of first aid during emergencies	**First Aid*** • Definition, basic principles, scope and rules • First aid management • Wounds, hemorrhage and shock • Musculoskeletal injuries—fractures dislocation, muscle injuries • Transportation of injured persons • Respiratory emergencies and basic CPR • Unconsciousness • Foreign bodies—skin, eye, ear, nose • Throat and stomach • Burns and scalds • Poisoning, bites and stings • Frostbite and effects of heat • Community emergencies	• Lecture • Discussion • Demonstration and redemonstration • Module completion • National Disaster Management Authority (NDMA)/Indian Red Cross Society (IRCS) First Aid module	• Essay • Short answer • Objective type • OSCE

* Mandatory module

Nursing Foundations II

Placement: IInd Semester **Theory: 6 Credits (120 hours)**

Practicum: Skill Lab: 2 Credits (120 hours) and Clinical: 4 Credits (320 hours)

Course description: This course is designed to help novice nursing students develop knowledge and competencies required to provide evidence-based, comprehensive basic nursing care for adult patients, using nursing process approach.

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
I	20 (T) 20 (SL)	Describe the purpose and process of health assessment and perform assessment under supervised clinical practice	**Health Assessment** • Interview techniques • Observation techniques • Purposes of health assessment • Process of health assessment ▪ Health history ▪ Physical examination: ◆ Methods: Inspection, palpation, percussion, auscultation, olfaction ◆ Preparation for examination: Patient and unit ◆ General assessment ◆ Assessment of each body system ◆ Documenting health assessment findings	• Modular learning ***Health Assessment Module** • Lecture cum discussion • Demonstration	• Essay • Short answer • Objective type • OSCE
II	13 (T) 8 (SL)	Describe assessment, planning, implementation and evaluation of nursing care using nursing process approach	**The Nursing Process** • Critical thinking competencies, attitudes for critical thinking, levels of critical thinking in nursing • Nursing process overview ▪ **Assessment** ◆ Collection of data: Types, sources, methods ◆ Organizing data ◆ Validating data ◆ Documenting data ▪ **Nursing Diagnosis** ◆ Identification of client problems, risks and strengths ◆ Nursing diagnosis statement—parts, types, formulating, guidelines for formulating nursing diagnosis ◆ NANDA approved diagnoses ◆ Difference between medical and nursing diagnosis ▪ **Planning** ◆ Types of planning ◆ Establishing priorities ◆ Establishing goals and expected outcomes—purposes, types, guidelines, components of goals and outcome statements ◆ Types of nursing interventions, selecting interventions: Protocols and standing orders	• Lecture • Discussion • Demonstration • Supervised clinical practice	• Essay • Short answer • Objective type • Evaluation of care plan

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			◆ Introduction to nursing intervention classification and nursing outcome classification ◆ Guidelines for writing care plan ▪ **Implementation** ◆ Process of implementing the plan of care ◆ Types of care—direct and indirect ▪ **Evaluation** Evaluation process, documentation and reporting		
III	5 (T) 5 (SL)	Identify and meet the nutritional needs of patients	**Nutritional Needs** • Importance • Factors affecting nutritional needs • Assessment of nutritional status • *Review:* Special diets—solid, liquid, soft • *Review* on therapeutic diets • Care of patient with dysphagia, anorexia, nausea, vomiting • Meeting nutritional needs: Principles, equipment, procedure, indications ▪ Oral ▪ Enteral: Nasogastric/orogastric ▪ Introduction to other enteral feeds—types, indications, gastrostomy, jejunostomy ▪ Parenteral—Total Parenteral Nutrition (TPN)	• Lecture • Discussion • Demonstration • Exercise • Supervised clinical practice	• Essay • Short answer • Objective type • Evaluation of nutritional assessment and diet planning
IV	5 (T) 15 (SL)	Identify and meet the hygienic needs of patients	**Hygiene** • Factors influencing hygienic practice • Hygienic care: Indications and purposes, effects of neglected care ▪ Care of the skin—(Bath, feet and nail, hair care) ▪ Care of pressure points ▪ Assessment of pressure ulcers using Braden Scale and Norton Scale ▪ Pressure ulcers—causes, stages and manifestations, care and prevention ▪ Perineal care/meatal care ▪ Oral care, care of eyes, ears and nose including assistive devices (eye glasses, contact lens, dentures, hearing aid)	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type • OSCE
V	10 (T) 10 (SL)	Identify and meet the elimination needs of patient	**Elimination Needs** • Urinary elimination ▪ Review of physiology of urine elimination, composition and characteristics of urine ▪ Factors influencing urination ▪ Alteration in urinary elimination ▪ Facilitating urine elimination: Assessment, types, equipment, procedures and special considerations ▪ Providing urinal/bedpan	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type • OSCE

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			▪ Care of patients with ◆ Condom drainage ◆ Intermittent catheterization ◆ Indwelling urinary catheter and urinary drainage ◆ Urinary diversions ◆ Bladder irrigation • Bowel elimination ▪ Review of physiology of bowel elimination, composition and characteristics of feces ▪ Factors affecting bowel elimination ▪ Alteration in bowel elimination ▪ Facilitating bowel elimination: Assessment, equipment, procedures ◆ Enemas ◆ Suppository ◆ Bowel wash ◆ Digital evacuation of impacted feces ◆ Care of patients with ostomies (bowel diversion procedures)		
VI	3 (T) 4 (SL)	• Explain various types of specimens and identify normal values of tests • Develop skill in specimen collection, handling and transport	**Diagnostic Testing** • Phases of diagnostic testing (pretest, intratest and post-test) in common investigations and clinical implications ▪ Complete blood count ▪ Serum electrolytes ▪ LFT ▪ Lipid/lipoprotein profile ▪ Serum glucose—AC, PC, HbA1c ▪ Monitoring capillary blood glucose (Glucometer random blood sugar—GRBS) ▪ Stool routine examination ▪ Urine testing—albumin, acetone, pH, specific gravity ▪ Urine culture, routine, timed urine specimen ▪ Sputum culture ▪ Overview of radiologic and endoscopic procedures	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type
VII	11 (T) 10 (SL)	Assess patients for oxygenation needs, promote oxygenation and provide care during oxygen therapy	**Oxygenation Needs** • Review of cardiovascular and respiratory physiology • Factors affecting respiratory functioning • Alterations in respiratory functioning • Conditions affecting ▪ Airway ▪ Movement of air ▪ Diffusion ▪ Oxygen transport • Alterations in oxygenation • Nursing interventions to promote oxygenation: assessment, types, equipment used and procedure	• Lecture • Discussion • Demonstration and Redemonstration	• Essay • Short answer • Objective type

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			▪ Maintenance of patent airway ▪ Oxygen administration ▪ Suctioning—oral, tracheal ▪ Chest physiotherapy—percussion, vibration and postural drainage ▪ Care of chest drainage—principles and purposes ▪ Pulse oximetry—factors affecting measurement of oxygen saturation using pulse oximeter, interpretation • Restorative and continuing care ▪ Hydration ▪ Humidification ▪ Coughing techniques ▪ Breathing exercises ▪ Incentive spirometry		
VIII	5 (T) 10 (SL)	Describe the concept of fluid, electrolyte balance	**Fluid, Electrolyte, and Acid-Base Balances** • Review of physiological regulation of fluid, electrolyte and acid-base balances • Factors affecting fluid, electrolyte and acid-base balances • Disturbances in fluid volume: ▪ Deficit ◆ Hypovolemia ◆ Dehydration ▪ Excess ◆ Fluid overload ◆ Edema • Electrolyte imbalances (hypo and hyper) ▪ Acid-base imbalances ◆ Metabolic—acidosis and alkalosis ◆ Respiratory—acidosis and alkalosis ▪ Intravenous therapy ◆ Peripheral venipuncture sites ◆ Types of IV fluids ◆ Calculation for making IV fluid plan ◆ Complications of IV fluid therapy ◆ Measuring fluid intake and output ◆ Administering blood and blood components ◆ Restricting fluid intake ◆ Enhancing fluid intake	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type • Problem solving—calculations
IX	20 (T) 22 (SL)	• Explain the principles, routes, effects of administration of medications • Calculate conversions of drugs and dosages within and between systems of measurements	**Administration of Medications** • Introduction—definition of medication, administration of medication, drug nomenclature, effects of drugs, forms of medications, purposes, pharmacodynamics and pharmacokinetics • Factors influencing medication action • Medication orders and prescriptions • Systems of measurement • Medication dose calculation • Principles, 10 rights of medication administration • Errors in medication administration	• Lecture • Discussion • Demonstration and redemonstration	• Essay • Short answer • Objective type • OSCE

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
		• Administer oral and topical medication and document accurately under supervision	• Routes of administration • Storage and maintenance of drugs and nurses responsibility • Terminologies and abbreviations used in prescriptions and medications orders • Developmental considerations • Oral, sublingual and buccal routes: Equipment, procedure • Introduction to parenteral administration of drugs—intramuscular, intravenous, subcutaneous, intradermal: Location of site, advantages and disadvantages of the specific sites, indication and contraindications for the different routes and sites. • Equipment—syringes and needles, cannulas, infusion sets—parts, types, sizes • Types of vials and ampoules, preparing injectable medicines from vials and ampoules ▪ Care of equipment: Decontamination and disposal of syringes, needles, infusion sets ▪ Prevention of needle-stick injuries • Topical administration: Types, purposes, site, equipment, procedure ▪ Application to skin and mucous membrane ▪ Direct application of liquids, gargle and swabbing the throat ▪ Insertion of drug into body cavity: Suppository/medicated packing in rectum/vagina ▪ Instillations: Ear, eye, nasal, bladder, and rectal ▪ Irrigations: Eye, ear, bladder, vaginal and rectal ▪ Spraying: Nose and throat • Inhalation: Nasal, oral, endotracheal/tracheal (steam, oxygen and medications)—purposes, types, equipment, procedure, recording and reporting of medications administered • Other parenteral routes: Meaning of epidural, intrathecal, intraosseous, intraperitoneal, intrapleural, intra-arterial		
X	5 (T) 6 (SL)	Provide care to patients with altered functioning of sense organs and unconsciousness in supervised clinical practice	**Sensory Needs** • Introduction • Components of sensory experience—reception, perception and reaction • Arousal mechanism • Factors affecting sensory function • Assessment of sensory alterations—sensory deficit, deprivation, overload and sensory poverty • Management ▪ Promoting meaningful communication (patients with aphasia, artificial airway and visual and hearing impairment)	• Lecture • Discussion • Demonstration	• Essay • Short answer • Objective type

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
			Care of Unconscious Patients • Unconsciousness: Definition, causes and risk factors, pathophysiology, stages of unconsciousness, clinical manifestations • Assessment and nursing management of patient with unconsciousness, complications		
XI	4 (T) 6 (SL)	Explain loss, death and grief	**Care of Terminally Ill, Death and Dying** • Loss—types • Grief, bereavement and mourning • Types of grief responses • Manifestations of grief • Factors influencing loss and grief responses • Theories of grief and loss—Kubler Ross • 5 stages of dying • The R Process Model (Rando's) • Death—definition, meaning, types (brain and circulatory deaths) • Signs of impending death • Dying patient's bill of rights • Care of dying patient • Physiological changes occurring after death • Death declaration, certification • Autopsy • Embalming • Last office/death care • Counseling and supporting grieving relatives • Placing body in the mortuary • Releasing body from mortuary • Overview—medico-legal cases, advance directives, DNI/DNR, organ donation, euthanasia	• Lecture • Discussion • Case discussions • Death care/last office	• Essay • Short answer • Objective type
XII	3 (T)	Develop basic understanding of self-concept	**A. Self-concept** • Introduction • Components (personal identity, body image, role performance, self-esteem) • Factors affecting self-concept • Nursing management	• Lecture • Discussion • Demonstration • Case discussion/ role play	• Essay • Short answer • Objective type
XIII	2 (T)	Describe sexual development and sexuality	**B. Sexuality** • Sexual development throughout life • Sexual health • Sexual orientation • Factors affecting sexuality • Prevention of STIs, unwanted pregnancy, avoiding sexual harassment and abuse • Dealing with inappropriate sexual behavior	• Lecture • Discussion	• Essay • Short answer • Objective type

Contd...

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
XIV	2 (T) 4 (SL)	Describe stress and adaptation	**C. Stress and Adaptation—Introductory Concepts** • Introduction • Sources, effects, indicators and types of stress • Types of stressors • Stress adaptation—General Adaptation syndrome (GAS), Local Adaptation syndrome (LAS) • Manifestation of stress—physical and psychological • Coping strategies/mechanisms • Stress management ▪ Assist with coping and adaptation ▪ Creating therapeutic environment • Recreational and diversion therapies	• Lecture • Discussion	• Essay • Short answer • Objective type
XV	6 (T)	• Explain culture and cultural norms • Integrate cultural differences and spiritual needs in providing care to patients under supervision	**D. Concepts of Cultural Diversity and Spirituality** • Cultural diversity ▪ Cultural concepts—culture, subculture, multicultural, diversity, race, acculturation, assimilation ▪ Transcultural nursing ▪ Cultural competence ▪ Providing culturally responsive care • Spirituality ▪ Concepts—faith, hope, religion, spirituality, spiritual wellbeing ▪ Factors affecting spirituality ▪ Spiritual problems in acute, chronic, terminal illnesses and near-death experience ▪ Dealing with spiritual distress/problems	• Lecture • Discussion	• Essay • Short answer • Objective type
XVI	6 (T)	Explain the significance of nursing theories	**Nursing Theories: Introduction** • Meaning and definition, purposes, types of theories with examples, overview of selected nursing theories—Nightingale, Orem, Roy • Use of theories in nursing practice	• Lecture • Discussion	• Essay • Short answer • Objective type

Contents

Semester II

Unit IX

Comfort, Rest and Sleep and Pain

UNIT OUTLINE

19

Providing Comfort

LEARNING OBJECTIVES

After the completion of the chapter, the readers will be able to:

- List comfort devices used for patients.
- Describe the types of beds used for patients.
- Demonstrate skill in different types of bed making.

CHAPTER OUTLINE

Comfort Devices
Beds and Bed Making
Factors Influencing Comfort

KEY TERMS

Air cushion: These are made of rubber and can be inflated with air. They are used to take the weight of the body off the sacral region.

Back rest: It is a mechanical device, which provides support to the patient in a sitting position.

Bed cradle: It is a comfort device, designed to keep the top bed-clothes off the feet, legs and abdomen of a patient.

Comfort devices: These are the mechanical devices planned to provide optimal comfort to an individual.

Comfortable environment: The absence of irritating stimuli that distracts attention from the task at hand.

Foot board: It is a flat panel made of wood or plastic and is placed at the foot end of the bed.

INTRODUCTION

Nursing care meets all client needs. The client's most important basic need is comfort which can be provided by using various comfort devices, positions and a comfortable bed.

COMFORT DEVICES

Mattresses

Most beds have firm and even surface for patients' comfort. A rubber or plastic surface permits easy cleaning. Special mattresses provide extra comfort and support for clients and relieve the pressure on bony prominences, e.g., air-water mattress.

Cardiac Table

It is a device designed as an overbed table and is placed in front of the patients while they are in Fowler's position. It is so called because normally this is used for cardiac patients, who can lean forward on a pillow. This can also be used for writing purpose, serving food and other self-care activities.

Back Rest

It is a mechanical device, which provides support to the patient in a sitting position. Pillows can be placed on the back rest according to the comfort of the patient.

Foot Board

It is a flat panel made of wood or plastic and is placed at the foot end of the bed. It provides support to the patient's feet, keeps the top bed covers off the patient's feet and make the foot comfortable. It helps in preventing foot drop.

Foot Blocks

These are made up of wood, or metal and are used to raise the foot-end or head-end of the bed. They are used to prevent shock, to arrest hemorrhage, to retain enema and after spinal anesthesia.

Air Cushion

These are made of rubber and can be inflated with air. They are used to take the weight of the body off the sacral region. They prevent bed sores at the buttocks and should be always used with cover.

Cotton Rings

These are made of cotton. They are used to relieve pressure on certain parts of the body like elbows, heels, occiput, etc.

Hot Water Bottles

These are rubber bags, which can be filled with hot water, and are used to provide warmth and to make the patient and environment comfortable.

Bed Cradle

It is a comfort device, designed to keep the top bed-clothes off the feet, legs and abdomen of a patient. It is used in cases of burns, or to apply heat for drying plaster casts. It is also used in observing patients with lower limb amputation.

Rubber Ring

They are inflated with air and placed under the patient. Make sure that valve does not come in contact with any part of the body.

Sand Bags

These are used to immobilize a part of the body.

BEDS AND BED MAKING

The bed is the equipment used most by a patient, therefore, it should be designed for comfort, safety and adaptability for changing positions.

The typical hospital bed consists of a firm mattress on a metal frame that can be raised and lowered horizontally. The frame is divided into three sections so that the operator can raise and lower the head and foot end of the bed. Most beds are powered by electric motors, but some beds are operated manually. Hospital beds come in two different lengths. Standard length is approximately 6 feet. Longer bed is available for taller patients. Each bed sits on four rollers or casters that allow the nurse to move the bed easily. A hospital bed is usually 65–70 cm (26–28 inches) above the floor. The greater height of a hospital bed prevents undue musculoskeletal strain on the nurse and the client. The position of a bed is usually changed by electric controls on the side of the bed, at the foot of the bed or on a bedside table. Patients can thus, raise or lower sections of the bed without expending much energy. It is important for nurses to instruct clients on the proper use of controls and to caution them against raising the bed to a position that might cause harm.

Beds contain a number of safety measures. Locks located on the wheels, casters at the center of the bed frame should be used whenever the bed is stationery to prevent accidental movement during the performance of a procedure. Side-rails, located on both sides of a bed, protect patients from accidental falls, helps patients position themselves and provide upper

extremity support as patient gets out of bed. Side rails are adjustable metal frames that raise and lower the bed by pushing or pulling a knob.

General Rules to be Observed in Bed Making

- Have all equipment on hand and arrange conveniently in the order of use.
- Wash hands before and after the procedure.
- Do not expose the patient unnecessarily.
- Protect the patient from draught of air.
- Do not cover the patient's face while placing the linen.
- Do not mix clean linen with soiled linen.
- Never place the woolen blanket directly on the patient's body and never allow the mackintosh to touch the patient.
- Fold dirty linen away from your uniform and body.
- Avoid placing dirty linen on the floor.
- Start work from head to foot, near to far, and from clean to unclean area.
- Make the bed smooth, unwrinkled and firm.
- Avoid using torn linen.
- Periodical airing and sunning of mattresses to be done.
- Maintain body mechanics.
- Keep reasonable distance from the face of the patient to prevent cross-infection.

Types of Beds

Figures 19.1 to 19.7 show different types of beds.

- Open bed (Fig. 19.1)
- Closed bed (Fig. 19.2)
- Occupied bed (Fig. 19.3)
- Admission bed (Fig. 19.4)
- Postoperative bed (Fig. 19.5)
- Cardiac bed (Fig. 19.6)
- Amputation/divided bed (Figs 19.7A and B)
- Fracture bed
- Therapeutic bed, e.g., renal bed, rheumatism bed, etc.

Fig. 19.1: Open bed

Fig. 19.2: Closed bed

Fig. 19.3: Occupied bed

Fig. 19.4: Admission bed

Fig. 19.5: Postoperative bed

Fig. 19.6: Cardiac bed

Figs 19.7A and B: Amputation/divided bed

Skill—Making an Open Bed (Unoccupied Bed)

It is a bed, when it is about to be occupied by either a new patient or an ambulatory patient. Most beds are made when they are unoccupied.

Many patients may be out of bed at that time to reduce the work for both the nurse and the patient.

Purposes

- To provide a comfortable bed for the patient.
- To make the bed, as neat and attractive as possible.

Supplies

Bottom sheet, top sheet, bed spread/blanket, rubber draw sheet (waterproof), draw sheet, pillow cases, linen bag or hamper.

Steps of Procedure

Review and carry out the standard steps as given in Appendix

Steps	Rationale
Assessment	
1. Check patient's ability to be out of bed; obtain help if necessary.	Promotes safety for the patient.
Planning	
2. Arrange the linens in the order in which they will be used.	Saves time if linens are in correct order for use.

Contd...

Steps	Rationale
3. Lower the side rail on your side of the bed. Raise bed to an appropriate working height for you.	Provides easy access to materials. Prevents back strain and injury.
Implementation	
4. Wash hands and put on clean gloves if there is a chance of contact with blood or body fluids while removing used linen.	Prevents spread of microorganisms.
5. Loosen all linen on your side of the bed. Go to other side, lower that rail, and loosen the linens from the head to the foot of the bed. Fold bedspread if not soiled, place over the back of patient's chair. Remove sheets and pillow cases. Place pillows on a clean surface. Roll linens together and put them into linen bag or hamper. Avoid shaking or fanning the linen.	Permits linens to be removed. Bed spread and pillows are ready to be replaced. Placing soiled linen in linen bag prevents spread of micro-organisms.
6. Check the mattress; clean if soiled. Move mattress to the head of bed if needed.	Mattress cleaned before making the bed. Mattresses tend to move to the foot of bed when the head of the bed is raised.
7. Make the bed on one side at a time. Place all center folds in the linens at the center of the bed.	Decreases the number of steps for the nurse.
8. Place the bottom sheet on the mattress. Unfold the right side and tuck about 12 inches of the sheet smoothly over the top of the mattress.	Puts the same amount of sheet on both sides of bed. Secures sheet snugly to head of bed.
9. Miter the corner at the head of the bed by picking up the side edge of the sheet so that it forms a triangle with the head of bed with the side edge perpendicular to the bed. Using the palm of your hand, hold the sheet against the side of the mattress and tuck excess under mattress. Drop the sheet over your hand; then withdraw your hand and tuck the flap of the sheet under the mattress.	Holds the corners in place.
10. Position the draw sheet or lift sheet over the middle of the bed. Unfold and tuck both sheets in, on this side, from head to foot. If a lift sheet is used do not tuck it under mattress.	Protects the bottom linens from soiling by placing the draw sheet from the patient's shoulders to below the hips.
11. Place top edge of the sheet at the top of the mattress, seam side up, and unfold it toward the foot of the bed.	Avoids irritation from the seam.
12. Position the blanket or spread 4 inches from the top of the mattress, and unfold it toward the foot.	Allows sheet to be cuffed over top covers.
13. Tuck the sheet, blankets, and spread under the bottom of the mattress as one unit. Miter the corner by lifting the top linens out from the mattress and up onto the bed about 18 inches from the bottom of the bed. A triangle should be formed. Tuck excess linens hanging below mattress level under it, bring down the upper portion of the linens, and smooth them into a neat diagonal line.	Secures the linen under mattress. Top covers are not tucked down the sides of the mattress to allow the patient to get in and out of bed easily.
14. Fan fold the top linen back toward the center of the bed while tucking in the bottom sheet and draw sheet.	Allows you to see any wrinkles and remedy them. Holds sheet in place.
15. Grasp the edges of the bottom sheet tightly in both hands with the knuckles on top. Pull tightly down over the side; tuck under the mattress working down the side from head to foot. Pull the sheet diagonally at the bottom corner of the mattress to remove wrinkles.	Provides a smooth bottom sheet without wrinkles that may cause pressure areas.
16. Grasp draw sheet if used. Pull tightly and tuck it in over the side of the mattress. If this is used as a lift sheet, do not tuck it under mattress.	Saves time because a lift sheet is used often.
17. Smooth top linens from the head to the foot of the bed. Fold excess sheet, blanket, and spread under the mattress of the foot of the bed. If a toe pleat is not needed, miter the corner of the top linens at one unit.	Provides patient with a wrinkle-free bed.
18. Make the pleats. At the center of the top-linens, at the foot of the bed, make a 6 inch lengthwise pleat in the sheet before tucking the covers under the mattress.	Allow room for the patient's feet to move and prevents formation of pressure ulcers from the weight of the linens on the toes.

Contd...

Steps	Rationale
19. Move to the head of bed and fold back the top sheet, forming, a cuff 4–6 inches over the edge of the blanket and spread.	Provides a smooth edge under patient's chin and prevents soiling of blanket and spread.
20. Grasp the closed end of the pillow case, and with the other hand, gather one side of the open pillow case up over the hand at the closed end. Grasp the pillow with the covered hand while holding it away from your body. With the other hand on an open edge, pull the open edges down over the pillow. Do this until the pillow is completely covered. Adjust the pillow inside the case, keeping it from being contaminated by your uniform.	Provides a method for placing a pillow smoothly in the case without contaminating it.
21. Place the pillows at the head of the bed with the open ends away from the door.	Provides a neater appearance.
22. Place the bed in the lowest position, lock the brakes of the bed. Remove the soiled linen. Follow agency policy, or open the bed by folding the top back.	Promotes safety in getting in and out of bed. Allows patient to enter bed easily.
Evaluation	
23. Assess the patient's area. Is the bed neat, smooth, and wrinkle-free? Is everything within easy reach of patient?	Promotes safety.
Documentation	
24. Document linen change if required by agency policy.	Records the procedure.

Closed Bed

It is an unoccupied bed made to receive the patient and is fully covered with bed spread to protect it from dust and dirt. On admission of the patient, the closed bed is converted into an open bed.

Purposes

- To keep the bed ready for occupancy.
- To provide a neat and tidy appearance to the unit.

Articles

Same as for open bed

Steps of Procedures

Review and carry out the standard steps as given in Appendix.

Action/steps	Rationale
Assessment	
1. Check patient's orders to ensure patient is not allowed out of bed. Obtain help if necessary.	Promotes safety and assures medical plan to be followed.
Planning	
2. Arrange the linens in the order in which they will be used.	Saves time and energy.
3. Make sure the bed is locked and lower the side rail on your side. The other side rail should be raised. Raise the bed to an appropriate height.	Prevents back strain and injury.
Implementation	
4. Wash hands and put on clean gloves if there is a chance to come in contact with blood or body fluids during procedure.	Prevents spread of microorganisms.
5. Loosen the blanket and spread from the foot of the bed and remove each piece separately. If unsoiled, fold and place them over the back of patient's chair. Place any soiled linen in the hamper bag.	Saves time by readying linens to be replaced.

Contd...

Skill—Making an Occupied Bed

Linens are changed with the patient in bed if bed rest has been ordered.

Supplies

One bath blanket, rest same as unoccupied bed.

Purposes

- To provide a clean and comfortable bed for patient.
- To provide for the neat appearance of the ward.

Action/steps	Rationale
Action	
6. Place a bath blanket over the patient and the top sheet, unfold it, and ask the patient to hold the top, or tuck under the patient's shoulders. Remove the top sheet from beneath the bath blanket, and place in linen hamper or bag.	Provides warmth and privacy.
7. Move the patient into a side lying position at the far side of the bed, facing away from you. Assist the patient into proper alignment. Place a pillow under the head and at the patient's back to keep the patient in place, if needed.	Provides safety, allow near side of bed to be made.
8. Loosen the bottom linens from the top and side of the bed; roll each piece of linen as close to the patient as possible. ▪ Put the bottom sheet on the bed with the center fold at the center of the mattress. Fanfold the sheet that is for the other side of the bed with the center fold at the center of the mattress. ▪ Push the folded linen under the rolled, soiled bottom sheets that are being removed. Tuck the near side of the bottom sheet under the mattress and miter the corner. Tuck the sheet under the mattress from the head to the foot of the bed.	Allows soiled linens to be removed and clean linens to be placed when the patient rolls to the other side of the bed.
Action	
9. Place the draw sheet on the bed, centering it on the mattress, so that it reaches from the patient's shoulders to below the hips. Fan fold the far side of the sheet, and push it under the rolled bottom sheets. Tuck the near side under the mattress. Raise the side rail.	Allows removal of a soiled draw sheet when the patient is turned.
10. Go to the other side of the bed, lower the rail, and move the patient to the far side of the bed. If the patient can turn easily, ask the patient to roll to the opposite side. Adjust the patient's alignment, and reposition the bath blanket. Ask the patient to grab the raised side rail for support.	Allows removal of soiled linens and placement of clean linens. Raised rail provides safety.
11. Loosen the bottom linens and roll them up. Place in the linen hamper bag.	Prevents spread of microorganisms.
12. Pull the bottom sheet across the mattress, fold over the top of the mattress and smooth, tighten and tuck the excess sheet under the mattress, and miter the corner	Prevents wrinkles that may cause pressure ulcers.
13. Pull the draw sheet from the center of the bed, to pull tightly. Place your knee against the mattress while pulling. Tighten, smooth and tuck sheets under the side of the mattress from head to foot	Protects the bottom sheet from soiling.
14. Allow the patients to roll onto back. Place the top sheet over the patient with the top edge folded down a few inches beneath the chin. Have the patients hold the top sheet and remove the bath blanket. Position the blanket if used and spread in the same manner. Smooth the top linens and tuck the excess at the foot under the bottom of the mattress. Miter the corner on the near side, then far side, fold the top edge of the sheet over the blanket, and spread to form a cuff	Keeps the patient warm and protects privacy while the top linens are placed.
15. Make a toe pleat in to top sheet and blanket as given in previous skill	Provides extra room for the feet.
16. Remove the used pillow case and place it in the linen hamper or bag. Apply the clean pillow case and place beneath the patient's head with the open ends away from the door.	Provides a neat appearance.
17. Lower the bed, replace call light and restore the unit. Remove the linen hamper and place at appropriate area	Provides safety for the patient and prevents spread of microorganisms.
Evaluation	
18. Assess the patient's area. Are the linens neat, smooth and wrinkle free? Is the unit restored?	Promotes safety because the patient does not have to reach for items.
Documentation	
19. Document linen change on the notes, depending on the agency's policy	Documents the completion of the procedure.

Admission Bed

This is the bed which is prepared to receive a newly-admitted patient.

Steps of Admission Bed

A long mackintosh and a bath blanket are put over the open bed, until a thorough bath is given to patient at the time of admission. After the bath, the mackintosh and bath blankets are removed.

Purposes

- To welcome the patient.
- To provide immediate care, safety and comfort.
- To protect the bed linen while giving bath on admission.

Articles

A long mackintosh and a bath blanket and articles for bed bath.

Postoperative Bed

It is a bed prepared for a patient who is recovering from the effects of anesthesia following surgery.

Purposes

- To receive the patient after operation.
- To provide warmth and comfort.
- To prevent shock.
- To prevent injury.
- To prevent soiling of bed.
- To meet any emergency.

Articles

Same as open bed with additional articles like.

- Small mackintosh and towel to protect head end of bed
- Temperature tray.
- Blood pressure (BP) apparatus to record vital signs.
- **Intravenous (IV) stand and IV tray:** To administer IV fluid to patient.
- **Hot water bottles 2–3:** To keep bed warm.
- **Oxygen cylinder with tubing and catheter:** To meet any emergency.
- **Suction apparatus:** To remove secretions.
- **Bed block:** To raise foot end.
- **A tray containing:**
  - **Gauze pieces:** To clean mouth off secretion.
  - **Artery forceps:** To prevent falling back of tongue.
  - **Tongue depressor:** To keep the air passage clear.
  - **Airway:** To keep airway open.
  - **Kidney tray and paper bag:** To discard the waste.

Procedure

- Foundation of the bed is the same as that of on open bed.
- An extra mackintosh and a towel is placed at head end.
- The foot end of the top linen is left untucked and folded back.
- Fan fold the top linen lengthwise covering two-thirds of the bed on the right side.
- Place the hot water bottles under the top linen.
- Place the pillow upright of the head end to protect the patient from injury by hitting against the bars.

Cardiac Bed

It is a bed prepared for patients with cardiac diseases.

Purpose

To prepare the bed for the cardiac patient to relieve dyspnea.

Articles

Same as open bed with additional articles back rest/Fowler's bed—to support the patient while sitting

- **Cardiac table:** To provide support and comfort.
- **Extra pillows:** To provide support and comfort.
- **Air cushion:** To relieve pressure from sacral area.
- **Knee Pillow:** To provide support and comfort.
- **Foot rest:** To prevent slipping down.

Procedure

- Make the bed as in the open bed.
- Place the back rest and arrange pillows.
- Place the air cushion and knee pillow.
- Adjust the cardiac table and keep the pillows as needed for the patient to lean on it.
- Support the feet on foot rest.
- Make the patient comfortable.

Amputation/Divided/Cradle Bed

It is a bed in which top linen is divided into two parts to visualize the amputated part of the lower limbs without disturbing the patient.

Purposes

- To watch the stump for hemorrhage and apply tourniquet instantly.
- To keep the weight of bed clothes off the patient.
- To keep the stump in position.

Articles

Same as any open bed with additional articles extra set of top linen—to make a divided bed

- **Bed cradle:** To take weight of top clothes off the patient.
- **Two sand bags:** To keep stump in position.
- **Tourniquet and dressing tray:** To control hemorrhage.

- **Pillow with water proof cover:** To elevate the stump and protect pillow.
- **Hot water bottles:** To keep the bed warm.

Procedure

The foundation and head end of bed is made as in open bed.

- The foot end side of top linen is folded back toward the head end at the level of part/stump to be observed.
- Spread the second set of top linen starting from the level of the stump.
- The second set of top linen should overlap the first by 8–12″.
- Receive the patient and elevate the stump on a small pillow and place the sand bags on either side to support the stump.
- Place the bed cradle in position.
- Cover the patient.

Fracture Bed

It is a bed which is prepared for patients with fracture, bone diseases and deformity.

Purposes

- To prevent undue sagging of mattress.
- To immobilize the fractured part.
- To restrict sudden jerky movements.
- To keep the traction in position.

Articles

Same as an open bed with additional articles. Fracture board to provide firm support to the patient.

Procedure

Arrange the fracture board on the cot. The bed is made as an open bed.

Therapeutic Beds: Renal/Rheumatism Bed

It is a bed made for patients suffering from rheumatism or renal diseases.

Purposes

- To carry the weight of the bed clothes off the painful joints.
- To keep the patient warm.
- To induce sweating.

Articles

Same as in open bed with additional articles:

- **Narrow mackintosh and draw sheet:** To protect the bed linen.
- **Two woolen blankets or bath blankets:** To keep under and over the patient to induce sweating.
- **Bed cradle:** To keep the weight of linen off the patient.
- **Sand bags:** To immobilize the painful joint.
- **Hot water bottles if required:** To provide warmth.

Note: In a renal bed, the cradle and sand bags are not required.

Procedure

Bed is made as in open bed. Place a narrow mackintosh and a draw sheet under the patient's buttocks. Place the extra blankets, one over and one under the patient, keeping in mind the principles of body mechanics.

FACTORS INFLUENCING COMFORT

Individual comfort and performance levels of a person are influenced by a number of factors such as:

Physical Factors

It involves all the aspect of an individual. It includes need for food, water, oxygen, elimination of waste products from body, mobility, personal care including cleanliness of body, care of teeth, hair, clean clothes, indulging in diversional activities, having a sound sleep of 6–8 hours, having a comfortable bed with clean bed sheets which are wrinkle free adds to the physical comfort of a person. Other physical comfort measures are freedom from pain, lack of exercise can be the source of discomfort.

Environmental Factors

It involve the temperature how hot or how cold it is; Human beings like to be in the range of 70–80 degrees, fresh air, decreased noise levels, humidity levels within comfortable limits, too bright light and glares freedom from unpleasant odors and free from any kind of radiation are some of the factors concerning environment.

Psychological Factors

It involve self esteem, identity, sexuality, relationships, effective communication and sense of safety and security concerns are some of the psychological factors which can be the source of discomfort.

Sociocultural Factors

It involve family, societal and interpersonal relationships, traditions rituals and religious factors, traditions, rituals and religious factors. Information about the disease condition, interaction with hospital staff, family presence and support and friends which influence the comfort of person.

SUMMARY

- Nursing care meets all client needs and most important basic need is comfort which can be provided by using various comfort devices and comfortable positions.
- Comfort devices are Mattresses, Cardiac Table, Back Rest, Foot Board, Foot Blocks, Air Cushion, Cotton Rings, Hot Water Bottles, Bed Cradle, Rubber Ring, Sand Bags, etc.
- There are different types of beds such as Open bed, Closed bed, Occupied bed, Admission bed, Postoperative bed, Cardiac bed, Amputation/divided bed, Fracture bed, etc.

BIBLIOGRAPHY

- Alexander MF, Fawcett JN, Phyllis J. Runciman JP. Nursing Practice—Hospital and Home, 1st edition, Longman Group UK Limited; London; 1994. p. 747–50.
- Craven RF, Hirnel CJ, Henshaw CM. Fundamentals of Nursing—Human Health and Function. Lippincott Williams and Wilkins; Philadelphia; 2000. p. 762-5.
- Kozier Barbara B, Du Gas Beverly W. Fundamentals of Nursing Patient Care. WB Saunders Company, Philadelphia; 1967. p. 83–9.
- Leahy JM, Patricia EK. Foundation of Nursing Practice, 1st edition, WB Saunders Company; Philadelphia; 1998. p. 670–6.
- Price AL. The Art, Science and Spirit of Nursing, 3rd edition, WB Saunders Company. Philadelphia; 1968. p. 84–94.
- Thresyamma CP. Fundamentals of Nursing, 1st edition, Jaypee Brother Publication; New Delhi; 2002. p. 154–8.
- Trained Nurses Association of India. Fundamentals of Nursing—A Procedure Manual, 1st edition, New Delhi; 2005. p. 147–9.

STUDENT ASSIGNMENT

LONG ANSWER QUESTIONS

1. Write the steps followed while making an open bed.
2. Discuss the factors that influence comfort.

SHORT ANSWER QUESTIONS

1. List the comfort devices used for patients.
2. What general rule is to be followed while bed-making?

MULTIPLE CHOICE QUESTIONS

1. Comfort device used for cardiac patients for serving food and other self-care activities is called:
a. Back rest b. Foot board
c. Cardiac table d. Foot blocks

2. A mechanical device used in burn patients to take off the weight of top linen is known as:
a. Air cushion b. Bed-cradle
c. Bed block d. Cardiac table

3. Comfort device used to prevent foot drop is:
a. Foot board b. Foot block
c. Air cushion d. Back rest

4. Comfort device to take the weight of the body off the sacral region is called:
a. Cardiac table b. Air cushion
c. Foot block d. Foot board

5. While bed-making, pillow must be placed in such a way that open end of pillow case is:
a. Toward the door
b. Away from the door
c. Can be placed in both ways
d. It does not matter

6. Which of the following statements related to mitered corners is true?
a. Secures the linen under mattress
b. Prepares to hold linen tightly in place
c. Are not used with fitted sheets
d. All statements are true

7. The main purpose of getting amputation/divided bed ready is:
a. To provide warmth and comfort
b. To prevent shock
c. To keep weight of bed clothes off the patient
d. To prevent injury

8. Which of the following describes comfort?
a. To soothe b. To console
c. To ease d. All of these

9. What refers to the preparation of bed with new set of linen?
a. Bed bath b. Bed shampooing
c. Bed-making d. Bed lining

ANSWER KEY

1. c **2.** b **3.** a **4.** b **5.** b **6.** d **7.** c **8.** d **9.** c

32

General Health Assessment

LEARNING OBJECTIVES

After the completion of the chapter, the readers will be able to:

- Describe the preparation of patient and the environment for doing health assessment.
- Identify the equipment and positions used during a physical assessment.
- Use techniques of inspection, palpation, percussion, and auscultation appropriately during physical assessment.

CHAPTER OUTLINE

Physical Health Assessment
Purposes of Physical Examination
Role of Nurse in Physical Examination
Methods of Examination
General Survey

KEY TERMS

Auscultation: It is the process of listening to sounds produced within the body using stethoscope.

Inspection: It is the visual examination, to assess size, shape, moisture, color, and symmetry of the body.

Olfaction: It means assessing the patients with the source of odor.

Palpation: It is the examination of the body using the sense of touch to determine texture, temperature, vibration, size, consistency, and mobility of organs or masses.

Percussion: It is used to determine the size and shape of the internal organs by establishing their borders.

INTRODUCTION

Health assessment is an integral component of nursing care and is the foundation of the nursing process. The information from the nursing health assessment is used to formulate nursing diagnosis. Assessments are used to plan, implement and evaluate care to promote an optimal level of health through interventions to prevent illness, restore health and facilitate coping with disabilities or death. The information is also used to identify health problems that require interdisciplinary care or immediate referral to other healthcare providers.

Health assessment has two aspects:

- The nursing health history (details given in chapter on Nursing Process chapter 35).
- The physical examination which can be of three types:
  i. Complete assessment when patient is admitted to healthcare agency.
  ii. Examination of body systems.
  iii. Examination of body area.

PHYSICAL HEALTH ASSESSMENT

A physical health assessment is the systematic collection of objective information. It is usually conducted in a head-to-toe sequence or a system sequence but can be adapted to meet the needs of the patient. It is often necessary to modify the sequence, positions, and specific assessment based on the patient's age, energy level, cognitive and physical state, as well as time constraints. Even when modified, the physical assessment should be conducted in an organized manner.

PURPOSES OF PHYSICAL EXAMINATION

- To obtain baseline data about the client's functional abilities.
- To supplement, confirm or refute data obtained in the nursing history.
- To obtain data that will help establish nursing diagnosis and plans of care.
- To evaluate the physiologic outcomes of healthcare and thus the progress of a client's health problems.
- To make clinical judgments about a client's health status
- To identify the areas for health promotion and disease prevention.

ROLE OF NURSE IN PHYSICAL EXAMINATION

Preparation of the Client

Clients need to be explained about physical examination. The nurse should reassure the client as to where the examination will take place, why it is important, and what will happen. Instruct the client that all information gathered and documented during the assessment is kept confidential and only those healthcare providers, who have a legitimate need to know the client's information, will have an access to it. Health examinations are generally painless; however it is important to determine in advance about any positions that are contraindicated for a particular client. The nurse assists the client as needed to undress and put on a gown. Clients should empty their bladder before examination. This will help them to feel more relaxed. It will also facilitate palpation of the abdomen and pubic area and if urine analysis is required, urine can be collected for that purpose.

Preparation of the Environment

It is necessary to prepare the environment before starting the assessment. The time for the physical assessment should be convenient to both the client and the nurse. The environment needs to be well lit and the equipment should be organized for timely use. The room should be warm enough to be comfortable for the client. Providing privacy is important. Most of the people feel embarrassed if their bodies are exposed or if others can overhear or view them during the assessment. Culture, age and gender of both the client and the nurse influence how comfortable the client will be and what special arrangements might be needed. For example, if the client and nurse are of different genders, the client might prefer being examined by same gender person as that of the client.

Positioning

Several positions are frequently required during the physical assessment. It is important to consider the client's ability to assume a position. The client's physical condition, energy level and age should also be taken into consideration. Some positions are embarrassing and uncomfortable and therefore, should not be maintained for long. The assessment is organized so that several body areas can be assessed in one position, thus minimizing the number of position changes needed.

Draping

Drapes should be arranged so that only the area to be assessed is exposed and other body areas are covered. Drapes provide not only privacy but also warmth. Drapes are made of paper, cloth or bed linen.

Instrumentation

All equipment required for the health assessment should be clean, in good working order, and should be readily accessible.

Preparation of Equipment

Refer to Table 32.1 to know the purposes of various equipment.

TABLE 32.1: Purpose of various equipment

Equipment (Fig. 32.1)	Purposes
Sphygmomanometer	To measure blood pressure
Stethoscope	To listen to the body sounds
Fetoscope	To listen to the fetal heart sounds FHS
Temperature, pulse, respiration (TPR) tray	To assess the vital signs
Tongue depressor	To examine the mouth and throat
Pharyngeal retractor	To examine the larynx
Tape measure	To measure height, circumference of the head and abdomen
Flash light	To visualize any part
Weight machine	To check the weight
Ophthalmoscope	To examine the inner part of the eye ball
Otoscope	To examine the ear
Tuning fork	To test the hearing
Nasal speculum	To examine the nostrils
Percussion hammer, safety pins, cotton wool, cold and hot water in test tubes	To test reflexes and neurological examination
Vaginal speculum	To examine the genitals in women
Proctoscope	To examine the rectum
Gloves	To examine the pelvis internally
Sterile specimen bottles, slides, cotton applicators	To collect the specimens, if necessary
Thermometer	To check body temperature

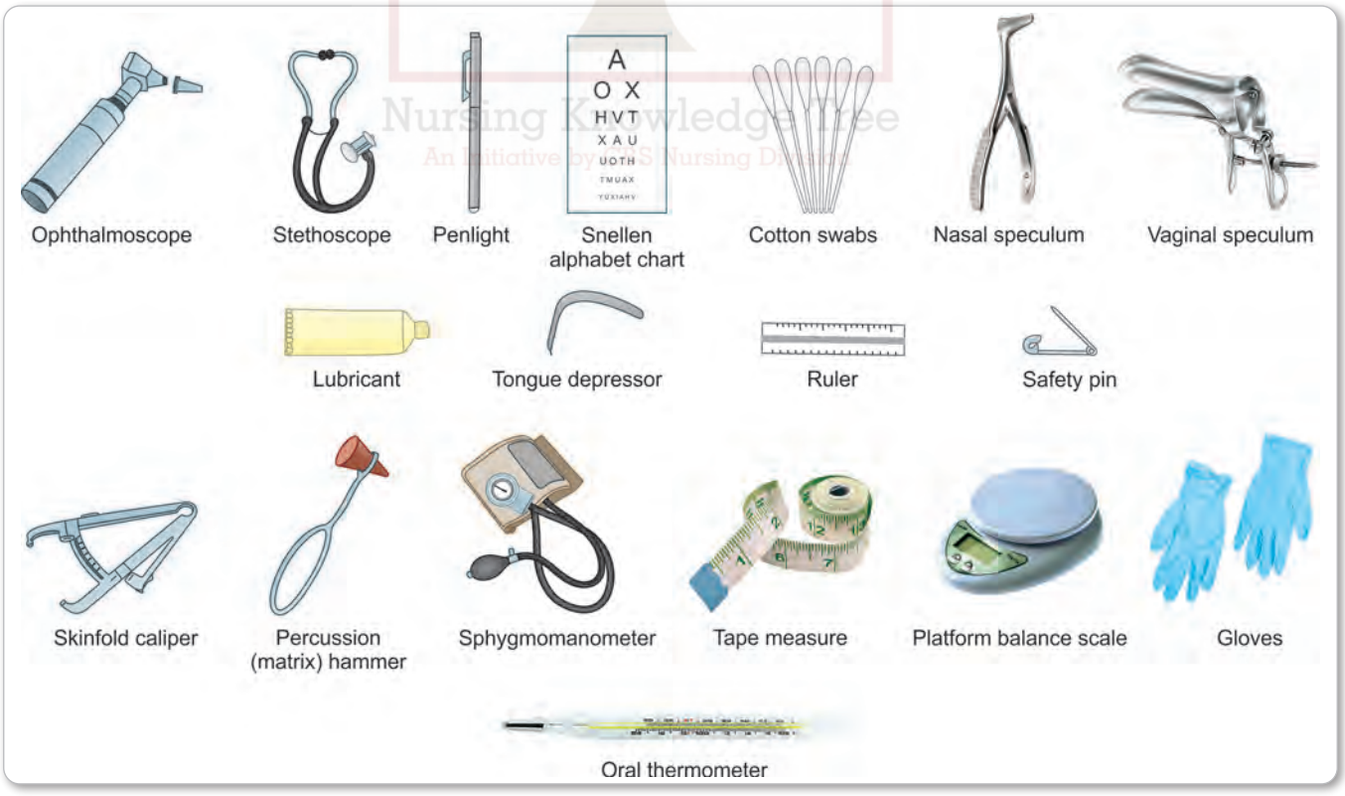


Fig. 32.1: Equipment used for physical examination

METHODS OF EXAMINATION

There are four methods of examination: Inspection, palpation, percussion and auscultation. Olfaction is another method of examination.

Inspection

Inspection is the visual examination, that is, assessing by using sense of sight. The nurse inspects with the naked eye and with a lighted instrument such as ophthalmoscope (used to view interior of the eye). In addition to visual observations, olfactory (smell) and auditory (hearing) cues are noted. Nurses frequently use visual inspection to assess size, shape, moisture, color, and symmetry of the body. Lighting must be sufficient to see clearly; either natural or artificial. When using the auditory senses, it is important to have a quiet environment for accurate hearing. Observation can be combined with the other assessment techniques.

Palpation

Palpation is the examination of the body using the sense of touch. The pads of fingers are used because the concentration of nerve endings makes them highly sensitive to tactile discrimination. Palpation is used to determine:

- Texture (e.g., of hair).
- Temperature (e.g., of a skin area).
- Vibration (e.g., of a joint).
- Position, size, consistency, and mobility of organs or masses.
- Distention (e.g., of urinary bladder).
- Pulsation.
- Presence of pain upon pressure.

There are two types of palpation, light and deep. Light (superficial) palpation should always precede deep palpation. For light palpation, (Fig. 32.2) the nurse extends the dominant hand's fingers parallel to the skin surface and presses gently

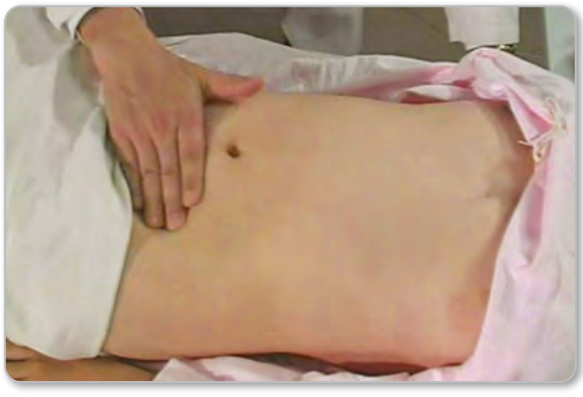


Fig. 32.2: Light palpation

Box 32.1

Characteristics of Masses

- **Location:** Site of the body, dorsal/ventral surface
- **Size:** Length and width in centimeters
- **Shape:** Oval, round, elongated, irregular
- **Consistency:** Soft, firm, hard
- **Surface:** Smooth, nodular
- **Pulsatility:** Present or absent
- **Mobility:** Fixed, mobile
- **Tenderness:** Degree of tenderness to palpation.

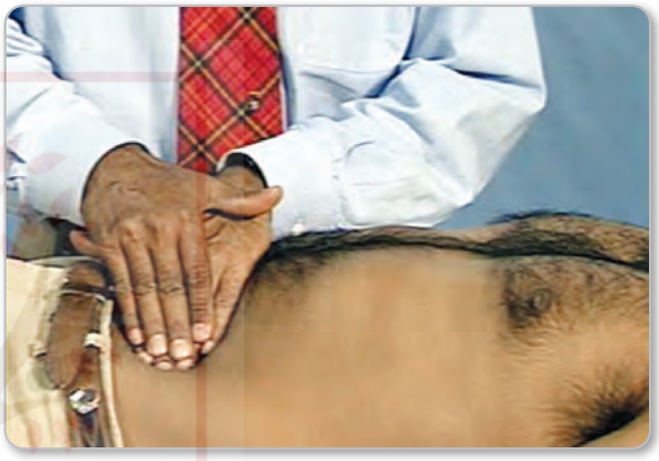


Fig. 32.3: Deep palpation

while moving the hand in a circle. With light palpation, the skin is slightly depressed. If it is necessary to determine the details of a mass (Box 32.1) the nurse presses lightly several times rather than holding the pressure.

Deep palpation is done with two hands (bimanually) (Fig. 32.3) or one hand. In deep bimanual palpation, the nurse extends the dominant hand as for light palpation, then places the finger pads of the non-dominant hand on the dorsal surface of the distal surface of the distal interphalangeal joint of the middle three fingers of the dominant hand.

The top hand applies pressure while the lower hand remains relaxed to perceive the tactile sensations. For deep palpation using one hand, the finger pads of the dominant hand press over the area to be palpated. Often the other hand is used to support a mass or organ from below.

Deep palpation is usually not done during a routine examination and requires significant skill. It is performed with extreme caution because pressure can damage internal organs. It is usually not indicated in clients, who have acute abdominal pain or pain that is not yet diagnosed.

To test temperature, it is best to use the dorsum or back of the hand and fingers, where the skin is thinnest.

To test for vibration, the nurse should use the palmar surface of the hand.

For doing palpation:

- The hands of the nurse should be clean and warm, and the fingernails should be short.
- Areas of tenderness should be palpated first.
- Deep palpation should be done after superficial palpation. The effectiveness of palpation depends largely on the client's relaxation. Nurses can assist a client to relax by:
  - Gowning or draping the client appropriately.
  - Positioning the client comfortably.
  - Ensuring that their own hands are warm.
- During palpation, the nurse should be sensitive to the client's verbal and nonverbal (facial) expressions indicating discomfort.

Percussion

Percussion is the act of striking the body surface to elicit sound that can be heard or vibrations that can be felt. There are two types of percussion: Direct and indirect.

In **direct percussion,** the nurse strikes the area to be percussed directly with the pads of two, three or four fingers or with the pad of middle finger. The strikes are rapid, and the movement is from the wrist. It is useful in percussing adult's sinuses (Fig. 32.4).

Indirect percussion is striking a finger held against the body area to be examined. In this technique, the middle finger of the non-dominant hand, referred to as the pleximeter, is placed firmly on the client's skin. Only the distal phalanx and joint of this finger should be in contact with the skin. Using the tip of the flexed middle finger of the other hand, called the plexor, the nurse strikes the pleximeter, usually at the distal interphalangeal joint. The angle between the plexor and the pleximeter should be 90 degrees, and the blows must be firm, rapid, and short to obtain a clear sound. Percussion is used to determine the size and shape of the internal organs by establishing their borders. It indicates whether tissue is fluid-filled, air-filled or solid. Percussion elicits five types of sound: Dullness, flatness, resonance, hyper-resonance and tympany (Table 32.2).

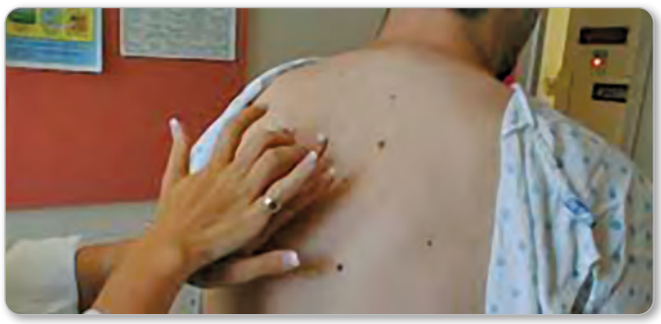


Fig. 32.4: Percussion

TABLE 32.2: Percussion sounds and location

Sound	Intensity	Quality	Location
Flatness	Soft	Extremely dull	Muscle, bone
Dullness	Medium	Thud-like	Liver, heart
Resonance	Loud	Hallow	Normal lung
Hyper-resonance	Very loud	Booming	Emphysematous lung
Tympany	Loud	Musical	Stomach filled with gas/air

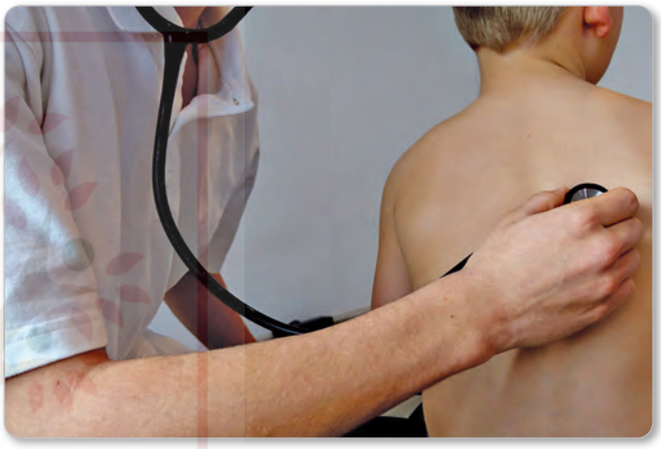


Fig. 32.5: Auscultation

Auscultation

Auscultation is the process of listening to sounds produced within the body. It may be direct or indirect. Direct auscultation is use of the unaided ear, for example, to listen to a respiratory wheeze or the grating of a moving joint (Fig. 32.5).

Indirect auscultation is performed by placing the diaphragm or bell of stethoscope against the body part being assessed. The stethoscope in used primarily to listen to sounds from within the body, such as bowel sounds or valve sounds of the heart and blood pressure (Fig. 32.6).

The diaphragm best transmits high-pitched sounds, e.g., bronchial sounds and the bell best transmits low-pitched sounds such as some heart sounds. If the client has excessive hair, it may be necessary to dampen the hair with a moist cloth so that they will lie flat against the skin and not interfere with clear sound transmission.

The following four characteristics of sound are assessed by auscultation:

i. Pitch (ranging from high to low).
ii. Intensity, loudness ranging from soft to loud.
iii. Quality, e.g., gurgling, swishing, whistling.
iv. Duration as short, medium or long.

Fig. 32.6: Stethoscope

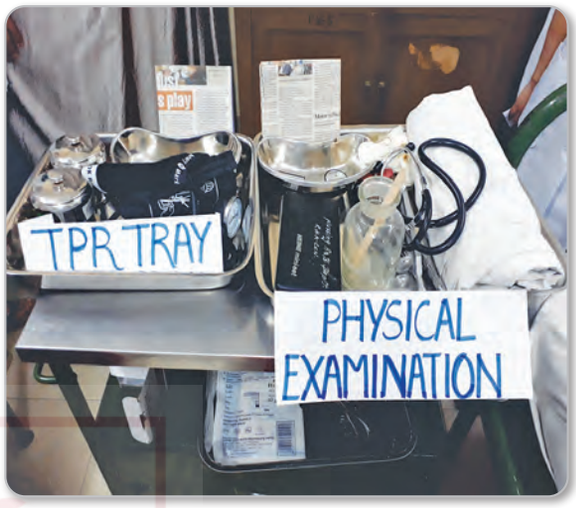


Fig. 32.7: TPR and physical examination tray

For auscultation, the nurse should expose the part to be listened to, use the proper part of the stethoscope and listen in quiet environment.

Olfaction

Olfaction means assessing the patient with the source of body odor. Olfaction helps to detect abnormalities that cannot be recognized by other means. For example, there is fruity smell from oral cavity in a patient with diabetic ketoacidosis or presence of alcohol smell, in which alcohol intoxication can be suspected.

GENERAL SURVEY

Health assessment begins with a general survey that involves observation of the client's general appearance and mental status, measurement of vital signs, height and weight. Many components of the general survey are assessed while taking the client's health history, such as the client's body build, posture, hygiene and mental status.

Note proportion of height and weight, which provides insight into nutritional status. Observe whether the patient has an erect or slumped posture and evaluate movements and gait pattern for coordination. Uncoordinated or spontaneous movements may suggest neurologic problems. Note the signs of illness, such as changes in posture, skin color, and respirations, nonverbal communication of pain or distress and short attention span, observe hygiene and grooming and also note any deficits, e.g., patients with inappropriate dress (wrong for the season) or dirty/torn clothes, etc. Assess speech content and pattern, orientation to time, place and person and appropriate verbal responses (cognitive processes).

Clues to mood and mental health are provided by speech, facial expressions, ability to relax, eye contact and behavior.

Vital Signs

Vital signs are measured to establish baseline data against which to compare future measurements and to detect actual and potential health problems. Vital signs are discussed in detail in Unit VI (Fig. 32.7).

Height and Weight

The ratio of height to weight is an assessment of overall health and overnutrition or undernutrition. Height and weight should be measured using accurate scales and measuring devices. If the patient cannot stand erect, weight can be obtained using a chair or bed scale. The patient's actual height and weight can be compared with recommended average weights or from a standardized reference chart (Table 32.3).

Children up to 2 years of age should have their height measured in the recumbent position with the legs fully extended. Infants should be weighed without clothing.

Obtaining Height and Weight with an Upright Balance Scale

Obtaining Height

- Ask the patient to remove shoes.
- Raise L-shaped sliding arm on the measuring device attached to the scale little higher than the patient's approximate height.
- Ask the patient to step on the platform of the scale and stand erect with the back to the measuring device and the heels together.
- Lower the L-shaped sliding arm till it rests on top of the patient's head.
- Read the height in inches and record.
- Ask the patient to step down from the platform.

TABLE 32.3: Height and weight table

Male			Female		
Height in feet	**Height in meter**	**Ideal weight**	**Height in feet**	**Height in meter**	**Ideal weight**
4'6"	1.3524	28–35 kg	4'6"	1.3524	28–35 kg
4'7"	1.3778	30–39 kg	4'7"	1.3778	30–37 kg
4'8"	1.4052	33–40 kg	4'8"	1.4052	32–40 kg
4'9"	1.4286	35–44 kg	4'9"	1.4286	35–42 kg
4'10"	1.454	38–46 kg	4'10"	1.454	36–45 kg
4'11"	1.4794	40–50 kg	4'11"	1.4794	39–47 kg
5'0"	1.5	43–53 kg	5'0"	1.5	40–50 kg
5'1"	1.5254	45–55 kg	5'1"	1.5254	43–52 kg
5'2"	1.5503	48–59 kg	5'2"	1.5503	45–55 kg
5'3"	1.5762	50–61 kg	5'3"	1.5762	47–57 kg
5'4"	1.6016	53–65 kg	5'4"	1.6016	49–60 kg
5'5"	1.627	55–65 kg	5'5"	1.627	51–62 kg
5'6"	1.6524	58–70 kg	5'6"	1.6524	53–65 kg
5'7"	1.6778	60–74 kg	5'7"	1.6778	55–67 kg
5'8"	1.7032	63-70 kg	5'8"	1.7032	57–70 kg
5'9"	1.7286	65–80 kg	5'9"	1.7286	59–72 kg
5'10"	1.754	67–83 kg	5'10"	1.754	61–75 kg
5'11"	1.7794	70–85 kg	5'11"	1.7794	63–77 kg
6'1"	1.8	72–89 kg	6'1"	1.8	65–80 kg

Obtaining Weight

- Balance the scale on zero.
- Ask the patient to remove shoes and heavy clothing and step onto the platform.
- Move the sliding indicator to the left until the scale balances.
- Read the weight in kilogram and record.
- Ask the patient to step down from the platform.
- Return the scale weight indicator to zero.

Note: Daily weights should be obtained at the same-time each day preferably early morning, with the patient wearing the same clothing, and using the same scale.

SUMMARY

- Health assessment is an integral component of nursing care and has two aspects: The nursing health history and the physical examination.
- **Inspection** is the visual examination. **Palpation** is the examination of the body using the sense of touch. **Percussion** is used to determine the size and shape of the internal organs by establishing their borders. **Auscultation** is the process of listening to sounds by using stethoscope to listen to sounds from within the body.
- There are four methods of examination: Inspection, palpation, percussion and auscultation.

BIBLIOGRAPHY

- Beckley LS. Bates' Guide to Physical Examination and History Taking, 8th edition. Wolters Kluwar; 2018.
- Craven RF, Hirnle CJ. Fundamentals of Nursing Human Health and Function, 3rd edition. Lippincott Publishers; 2000.
- Perry AG, Potter PA. Basic Nursing Essentials for Practice, 5th edition. Elsevier Publications; 2003.
- Taylor C et al. Fundamentals of Nursing, 1st edition. JB Lippincott Company; 1989.
- White L. Basic Nursing Foundations of Nursing Skills and Concepts. Delmar Thomson Learning; 2002. p. 919.

STUDENT ASSIGNMENT

LONG ANSWER QUESTIONS

1. Explain Weber and Rinne test of hearing.
2. What health history needs to be taken to assess abdomen?
3. How do you perform neurological examination?

SHORT ANSWER QUESTIONS

1. Write the observations you make on assessment of skin.
2. What do you observe with regard to pupil of eye?
3. What are adventitious breath sounds?
4. How do you carry out assessment of breast and axillae?
5. How do you assess level of consciousness?

MULTIPLE CHOICE QUESTIONS

1. Pleximeter is used in:
   a. Inspection b. Auscultation
   c. Palpation d. Percussion

2. Which of the following body part is good for measuring temperature?
   a. Dorsum or back of hand b. Pads of fingertips
   c. Palm of hand d. None of the above

3. Which of the following body part is more sensitive to vibrations?
   a. Back of hand b. Palm of hand
   c. Pads of fingertips d. None of these

4. What kind of sound (percussion) can be heard in stomach filled with gas?
   a. Dullness
   b. Resonance
   c. Tympany
   d. Hyperresonance

5. Percussion sound of consolidated lung is:
   a. Resonant
   b. Hyperresonance
   c. Flat
   d. Dull

ANSWER KEY

1. d **2.** a **3.** b **4.** c **5.** d

Textbook of
Nursing Foundations for BSc Nursing Students

Salient Features

- This textbook will act as a standard prescription for educators and mentors for preparing nurses at graduate and postgraduate levels.
- An integral part of training requires teaching theory and mastering practical skills, which have been extensively covered in this book.
- Each and every skill procedure has been presented in a tabular format with standard nursing process approach—Assessment, Planning, Implementation, and Evaluation—with rationale at every step and documentation.
- *First Aid, Diagnostic Techniques* and *Rehabilitation* have been covered in detail for the first time in this edition.
- This textbook has been developed keeping in mind the clinical requirements of a student nurse at various levels of nursing education.
- Each chapter has a standard format starting with Introduction, necessary details about the topics followed by the procedures with their respective rationales.

Learning Objectives in the beginning of every chapter help readers understand the purpose of the chapter.

LEARNING OBJECTIVES

After the completion of the chapter, the readers will be able to:
- Define health and its changing concepts.
- Describe the health-illness continuum.

Chapter Outline gives a glimpse of the content covered in the entire chapter.

CHAPTER OUTLINE

Concept of Health and Disease
Changing Concepts of Health
Health-Illness Continuum

Key Terms are added in each chapter to help students understand difficult scientific terms in easy language.

KEY TERMS

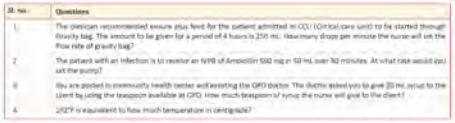
Agent: It is the first link in the chain of disease transmission, it can be Biological agent, Nutritional agent, Chemical agent, Physical agent and Social agent.

Biomedical concept: Traditionally health has been viewed as "absence of disease".

Information **Boxes** have been supplemented throughout the book to facilitate extra knowledge.

Box 3.1
Examples of levels of healthcare services
Primary care (health promotion)
- Prenatal care
- Well-baby care
- Nutritional care
- Family planning

To give an extra edge to book from the practical point of view, **OSCE** stations have been covered in a separation section.

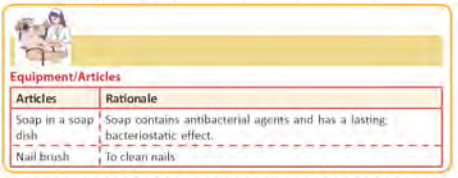


The book is well-illustrated with 500+ fully **Colored Images and Illustrations** for easy grasp of the relevant topic.

TABLE 2.1: Examples of health promotion activities

Level	Topic
Primary	Weight loss, diet, exercise, smoking cessation alcohol consumption, drugs, seat belts and child safety belts/seats, immunization, safe sex practices
Secondary	Screenings (blood pressure, cholesterol, glaucoma) pap smear, mammogram, testicular examination
Tertiary	Medications, surgical and medical treatment, rehabilitation, physical therapy, occupational therapy

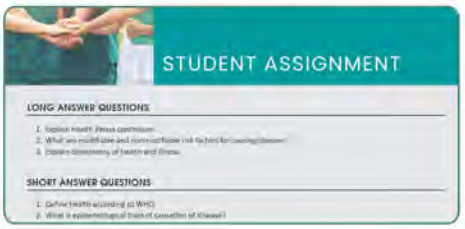
100+ **skill procedures** supplemented with theory for better understanding of their implementation in clinical settings



Important takeaway points of respective chapters have been highlighted under **Summary** boxes.

SUMMARY
- Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity (WHO 1948). Various dimensions of heath are: Physical health, Mental health, Social health and Spiritual health.
- Illness can be defined as a state of poor health or disease in an individual. It refers to a deviation from the normal functioning of the body or mind, resulting in physical or mental discomfort, impairment, or dysfunction.

Detailed **Student Assignment** in the form of exercises in each and every chapter will facilitate structured learning and revision of the material provided in the respective chapters.



About the Author

Harindarjeet Goyal *PhD, MPhil, MSc (MSN), BSc (Hons.), RN, RM* is a former Principal, Rajkumari Amrit Kaur College of Nursing, New Delhi. She held numerous positions, viz. Clinical Instructor, Tutor, Assistant Professor, Associate Professor, Professor-cum-Vice Principal and Officiating Principal, during her illustrious career spanning over 44 years.

She received her BSc (Hons.) degree from Rajkumari Amrit Kaur College of Nursing affiliated to University of Delhi in the year 1975. Thereafter, she taught Nursing Foundations and Medical Surgical Nursing to undergraduate students. She pursued her MSc (N) from the same college and continued as faculty member.

CBSPD
Dedicated to Education

CBS Publishers & Distributors Pvt. Ltd.
4819/XI, Prahlad Street, 24 Ansari Road, Daryaganj, New Delhi 110 002, India
E-mail: feedback@cbspd.com, **Website:** www.cbspd.com
New Delhi | Bengaluru | Chennai | Kochi | Kolkata | Lucknow | Mumbai
Hyderabad | Jharkhand | Nagpur | Patna | Pune | Uttarakhand

Scan QR Code
to access
CBS Nursing Catalogue

ISBN: 978-93-94525-68-9
9 789394 525689