KOZIER AND ERB'S FUNDAMENTALS OF NURSING

FIRST AUSTRALIAN EDITION

VOLUME ONE

Cover art

Robert Stuurman is a Noongar from Western Australia who does Aboriginal art as a result of meeting his birth mother in 1994. He is from the Stolen Generations.

The cover of this book is adapted from one of his paintings called *Pathways through the Sea*. This painting shows that knowing one's ability in an environment reflects knowing what to do in situations and circumstances—in this case knowing the seasons and cycles of the sea.

Starfish indicate a form of tenaciousness, because when one of their arms is cut off it grows back again. This tenaciousness for life is also reflected in the amount of dot work that is indicative of this story.

Tenacity and persistence is also reflected in the field of nursing. Due to nurses' willingness to make a difference to promote life, in many respects they are the unsung heroes that stay true to their pathway. Much like the pathways of the sea, they are always there.

This book cover is dedicated to would-be nurses who read this book and to the ones out in remote places that have had to make do with little.

Robert Stuurman, artist

KOZIER AND ERB'S FUNDAMENTALS OF NURSING

FIRST AUSTRALIAN EDITION

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Pearson Australia
Unit 4, Level 3
14 Aquatic Drive
Frenchs Forest NSW 2086

www.pearson.com.au

Authorised adaptation from the United States edition entitled *Kozier & Erb's Fundamentals of Nursing*, 8th edition, ISBN 0131714686 by Berman, Audrey; Snyder, Shirlee; Kozier, Barbara; Erb, Glenora, published by Pearson Education, Inc, publishing as Prentice Hall, Copyright © 2008.

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Cover illustration by Robert Stuurman
Typeset by Midland Typesetters, Australia
Printed in China

1 2 3 4 5 14 13 12 11 10

National Library of Australia
Cataloguing-in-Publication Data
Title: Kozier and Erb's Fundamentals of Nursing/Berman, Audrey [et al.].
Edition: 1st Australian ed.
ISBN: 9781442504691 (pbk: Vol 1)
9781442504707 (pbk: Vol 2)
9781442504714 (pbk: Vol 3)
Notes: Includes index.
Subjects: Nursing.
Nursing Process.
Nursing Care.
Other Authors/Contributors:
Berman, Audrey.
Kozier, Barbara.
Erb, Glenora Lea.
Dewey Number: 610.73

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Brief Contents

VOLUME 1

UNIT 1
THE NATURE OF NURSING 1
CHAPTER 1 Historical and Contemporary Nursing Practice 2
CHAPTER 2 Nurse Education, Research and Evidence-Based Practice 23
CHAPTER 3 Nursing Theories and Conceptual Frameworks 38
CHAPTER 4 Legal Aspects of Nursing 55
CHAPTER 5 Values, Ethics and Advocacy 86

UNIT 2
CONTEMPORARY HEALTH CARE 105
CHAPTER 6 Health Care Delivery Systems 106
CHAPTER 7 Community Health Nursing 122
CHAPTER 8 Home Care 133
CHAPTER 9 Nursing Informatics 147

UNIT 3
THE NURSING PROCESS 167
CHAPTER 10 Critical Thinking and the Nursing Process 168
CHAPTER 11 Assessing 181
CHAPTER 12 Diagnosing 202
CHAPTER 13 Planning 218
CHAPTER 14 Implementing and Evaluating 241
CHAPTER 15 Documenting and Reporting 254

UNIT 4
HEALTH BELIEFS AND PRACTICES 277
CHAPTER 16 Health Promotion 278
CHAPTER 17 Health, Wellness and Illness 305
CHAPTER 18 Cultures and Nursing 323
CHAPTER 19 Complementary and Alternative Therapies 343

UNIT 5
LIFESPAN DEVELOPMENT 361
CHAPTER 20 Concepts of Growth and Development 362
CHAPTER 21 Promoting Health from Conception through to Adolescence 381
CHAPTER 22 Promoting Health in Young and Middle-Aged Adults 409
CHAPTER 23 Promoting Health in Older Adults 423
CHAPTER 24 Promoting Family Health 448

VOLUME 2

UNIT 6
INTEGRAL ASPECTS OF NURSING 463
CHAPTER 25 Caring 464
CHAPTER 26 Communicating 482
CHAPTER 27 Teaching 517
CHAPTER 28 Leading, Managing and Delegating 546

UNIT 7
ASSESSING HEALTH 561
CHAPTER 29 Vital Signs 562
CHAPTER 30 Health Assessment 607

UNIT 8
INTEGRAL COMPONENTS OF CLIENT CARE 699
CHAPTER 31 Asepsis 700
CHAPTER 32 Safety 744
CHAPTER 33 Hygiene 780
CHAPTER 34 Diagnostic Testing 839
CHAPTER 35 Medications 875
CHAPTER 36 Skin Integrity and Wound Care 949
CHAPTER 37 Perioperative Nursing 987

VOLUME 3

UNIT 9
PROMOTING PSYCHOSOCIAL HEALTH 1031
CHAPTER 38 Sensory Perception 1032
CHAPTER 39 Self-Concept 1056
CHAPTER 40 Sexuality 1073
CHAPTER 41 Spirituality 1098
CHAPTER 42 Stress and Coping 1118
CHAPTER 43 Loss, Grieving and Death 1139

UNIT 10
PROMOTING PHYSIOLOGIC HEALTH 1163
CHAPTER 44 Activity and Exercise 1164
CHAPTER 45 Sleep 1220
CHAPTER 46 Pain Management 1246
CHAPTER 47 Nutrition 1292
CHAPTER 48 Urinary Elimination 1345
CHAPTER 49 Faecal Elimination 1386
CHAPTER 50 Oxygenation 1422
CHAPTER 51 Circulation 1467
CHAPTER 52 Fluid, Electrolyte and Acid–Base Balance 1492

Glossary G1
Index I1

Contents

ABOUT THE ORIGINATING AUTHORS XIII
ABOUT THE AUSTRALIAN AUTHORS XV
PREFACE TO THE FIRST AUSTRALIAN EDITION XVII
CONTRIBUTORS XXIV

VOLUME 1

UNIT 1
THE NATURE OF NURSING 1

CHAPTER 1
HISTORICAL AND CONTEMPORARY NURSING PRACTICE 2
Historical Perspectives 3
Contemporary Nursing Practice 9
Roles and Functions of the Nurse 11
Criteria of a Profession 13
Socialisation to Nursing 15
Factors Influencing Contemporary Nursing Practice 15
Nursing Organisations 18

CHAPTER 2
NURSE EDUCATION, RESEARCH AND EVIDENCE-BASED PRACTICE 23
Nurse Education 24
Types of Educational Programs 25
Nursing Research and Evidence-Based Practice 28
Critiquing Research Reports 34

CHAPTER 3
NURSING THEORIES AND CONCEPTUAL FRAMEWORKS 38
Introduction to Theories 39
The Metaparadigm for Nursing 40
Purposes of Nursing Theory 41
Overview of Selected Nursing Theories 42
Nursing Theorists in Australia 49
Critique of Nursing Theory 49

CHAPTER 4
LEGAL ASPECTS OF NURSING 55
Legal Aspects of Nursing 56
Regulation of Nursing Practice 64
Contractual Arrangements in Nursing 67
Selected Legal Aspects of Nursing Practice 71
Areas of Potential Liability in Nursing 76
Legal Protections in Nursing Practice 80
Reporting Crimes, Torts and Unsafe Practices 82
Legal Responsibilities of Students 82

CHAPTER 5
VALUES, ETHICS AND ADVOCACY 86
Values 87
Morality and Ethics 90
Nursing Ethics 92
Specific Ethical Issues 95
Advocacy 99

UNIT 2
CONTEMPORARY HEALTH CARE 105

CHAPTER 6
HEALTH CARE DELIVERY SYSTEMS 106
Types of Health Care Services 107
Types of Health Care Agencies and Services 108
Providers of Health Care 111
Factors Affecting Health Care Delivery 113
The Australian Health System 114
Frameworks for Care 117
Financing Health Care 118

CHAPTER 7
COMMUNITY HEALTH NURSING 122
Health Care Reform 123
Community-Based Health Care 124
Community Health 125
Community Health and Primary Care 126
Community-Based Nursing 129

CHAPTER 8
HOME CARE 133
Home Health Nursing 134
The Home Health Care System in Australia 136
Roles of the Home Health Nurse 138
Perspectives of Home Care Clients 139
Selected Dimensions of Home Health Nursing 139
The Practice of Nursing in the Home 142
The Future of Home Health Care 143

CHAPTER 9
NURSING INFORMATICS 147

General Concepts 148
Computers in Nursing and Midwifery Practice 153
Computers in Nursing and Midwifery Education 159
Computers in Nursing Administration 161
Computers in Nursing and Midwifery Research 162

UNIT 3
THE NURSING PROCESS 167

CHAPTER 10
CRITICAL THINKING AND THE NURSING PROCESS 168

Critical Thinking 169
Skills in Critical Thinking 170
Attitudes that Foster Critical Thinking 171
Standards of Critical Thinking 173
Applying Critical Thinking to Nursing Practice 173
Developing Critical-Thinking Attitudes and Skills 176

CHAPTER 11
ASSESSING 181

Overview of the Nursing Process 182
Assessing 186
Collecting Data 186
Organising Data 195
Validating Data 198
Documenting Data 199

CHAPTER 12
DIAGNOSING 202

NANDA-I: The Australian Context 203
NANDA-I Nursing Diagnoses 203
The Diagnostic Process 206
Ongoing Development of Nursing Diagnoses 213

CHAPTER 13
PLANNING 218

The Classification System in Australia 219
Types of Planning 219
Developing Nursing Care Plans 220
The Planning Process 225
The Nursing Interventions Classification 233

CHAPTER 14
IMPLEMENTING AND EVALUATING 241

Implementing 242
Evaluating 245

CHAPTER 15
DOCUMENTING AND REPORTING 254

Ethical and Legal Considerations 255
Purposes of Patient Records 255
Documentation Systems 256
Documenting Nursing Activities 264
Documentation in Residential Aged Care Facilities 266
Home Care Documentation 267
General Guidelines for Recording 267
Reporting 270

UNIT 4
HEALTH BELIEFS AND PRACTICES 277

CHAPTER 16
HEALTH PROMOTION 278

Individual Health 279
Applying Theoretical Frameworks 280
Defining Health Promotion 285
Sites for Health Promotion Activities 285
Health Promotion Model 287
Stages of Health Behaviour Change 289
The Nurse's Role in Health Promotion 291
NURSING MANAGEMENT 292

CHAPTER 17
HEALTH, WELLNESS AND ILLNESS 305

Concepts of Health, Wellness and Wellbeing 306
Models of Health and Wellness 308
Variables Influencing Health Status, Beliefs and Practices 311
Health Belief Models 313
Health Care Concordance 316
Illness and Disease 317

CHAPTER 18
CULTURES AND NURSING 323

National Organisations and Trends 324
Cultural Nursing Care 325
Concepts Related to Cultural Nursing Care 326
Heritage Consistency 328
Selected Parameters for Cultural Nursing Care 329
Providing Cultural Nursing Care 334
NURSING MANAGEMENT 334

CHAPTER 19
COMPLEMENTARY AND ALTERNATIVE THERAPIES 343
Basic Concepts 344
Ethnocentrism and Medical Intransigence 346

UNIT 5
LIFESPAN DEVELOPMENT 361

CHAPTER 20
CONCEPTS OF GROWTH AND DEVELOPMENT 362
Factors Influencing Growth and Development 363
Stages of Growth and Development 364
Growth and Development Theories 364
Applying Growth and Development Concepts to Nursing Practice 376

CHAPTER 21
PROMOTING HEALTH FROM CONCEPTION THROUGH TO ADOLESCENCE 381
Conception and Prenatal Development 382
Neonates and Infants (Birth to 1 Year) 384
Toddlers (1 to 3 Years) 390
Preschoolers (4 and 5 Years) 393
School-Age Children (6 to 12 Years) 396
Adolescents (12 to 18 Years) 399

CHAPTER 22
PROMOTING HEALTH IN YOUNG AND MIDDLE-AGED ADULTS 409
Young Adults (20 to 40 Years) 410
Middle-Aged Adults (40 to 65 Years) 415

CHAPTER 23
PROMOTING HEALTH IN OLDER ADULTS 423
Characteristics of Older Adults in Australia 424
Attitudes Toward Ageing 425
Gerontological Nursing 426
Care Settings for Older Adults 427
Physiological Ageing 429
Psychosocial Ageing 435
Cognitive Abilities and Ageing 438
Moral Reasoning 438
Spirituality and Ageing 439
Health Problems 439
Health Assessment and Promotion 442

CHAPTER 24
PROMOTING FAMILY HEALTH 448
Family Health 449
Applying Theoretical Frameworks to Families 451
NURSING MANAGEMENT 453

VOLUME 2

UNIT 6
INTEGRAL ASPECTS OF NURSING 463

CHAPTER 25
CARING 464
Professionalisation of Caring 465
Nursing Theories on Caring 465
Types of Knowledge in Nursing 470
Caring Encounters 471
Maintaining Caring Practice 473

CHAPTER 26
COMMUNICATING 482
Communicating 483
Therapeutic Relationships 497
Group and Team Communication 502
Communication and the Nursing Process 504
NURSING MANAGEMENT 505
Communication Among Health Professionals 508

CHAPTER 27
TEACHING 517
Teaching 518
Learning 521
The Internet and Health Information 526
Nurse as Educator 527
NURSING MANAGEMENT 527

CHAPTER 28
LEADING, MANAGING AND DELEGATING 546
The Nurse as Leader and Manager 547
Leadership 547
Management 550
Clinical Governance 554
The Nurse as Delegator 554
Change 555
Types of Change 556

UNIT 7
ASSESSING HEALTH 561

CHAPTER 29
VITAL SIGNS 562

Body Temperature 563
SKILL 29.1 Assessing Body Temperature 573
Pulse 575
SKILL 29.2 Assessing a Peripheral Pulse 580
SKILL 29.3 Assessing an Apical Pulse 582
SKILL 29.4 Assessing an Apical-Radial Pulse 584
Respirations 586
SKILL 29.5 Assessing Respirations 589
Blood Pressure 591
SKILL 29.6 Assessing Blood Pressure 596
Oxygen Saturation 599
SKILL 29.7 Measuring Oxygen Saturation 601

CHAPTER 30
HEALTH ASSESSMENT 607

Physical Health Assessment 608
General Assessment 615
SKILL 30.1 Assessing Appearance and Mental Status 616
The Integument 619
SKILL 30.2 Assessing the Skin 623
SKILL 30.3 Assessing the Hair 625
SKILL 30.4 Assessing the Nails 629
The Head 630
SKILL 30.5 Assessing the Skull and Face 630
SKILL 30.6 Assessing the Eye Structures and Visual Acuity 633
SKILL 30.7 Assessing the Ears and Hearing 638
SKILL 30.8 Assessing the Nose and Sinuses 641
SKILL 30.9 Assessing the Mouth and Oropharynx 643
The Neck 646
SKILL 30.10 Assessing the Neck 647
The Thorax and Lungs 649
SKILL 30.11 Assessing the Thorax and Lungs 652
The Cardiovascular and Peripheral Vascular Systems 656
SKILL 30.12 Assessing the Heart and Central Vessels 658
SKILL 30.13 Assessing the Peripheral Vascular System 661
The Breasts and Axillae 663
SKILL 30.14 Assessing the Breasts and Axillae 664
The Abdomen 667
SKILL 30.15 Assessing the Abdomen 668
The Musculoskeletal System 672
SKILL 30.16 Assessing the Musculoskeletal System 673
The Neurologic System 679
SKILL 30.17 Assessing the Neurologic System 680
The Female Genitals and Inguinal Area 687
SKILL 30.18 Assessing the Female Genitals and Inguinal Area 687
The Male Genitals and Inguinal Area 689
SKILL 30.19 Assessing the Male Genitals and Inguinal Area 691
The Rectum and Anus 693
SKILL 30.20 Assessing the Rectum and Anus 693

UNIT 8
INTEGRAL COMPONENTS OF CLIENT CARE 699

CHAPTER 31
ASEPSIS 700

Types of Infections 702
Hospital-Acquired Infections 702
Chain of Infection 703
Body Defences Against Infection 705
Factors Increasing Susceptibility to Infection 707
NURSING MANAGEMENT 711
SKILL 31.1 Hand Washing 716
Isolation Precautions 720
Isolation Practices 723
SKILL 31.2 Donning and Removing Personal Protective Equipment (Gloves, Gown, Mask, Eyewear) 724
Sterile Technique 728
SKILL 31.3 Establishing and Maintaining a Sterile Field 730
SKILL 31.4 Donning and Removing Sterile Gloves (Open Method) 734
SKILL 31.5 Donning a Sterile Gown and Gloves (Closed Method) 736
Infection Control for Health Care Workers 737
Role of the Infection Control Nurse 738
Evaluating 738

CHAPTER 32
SAFETY 744

Factors Affecting Safety 745
NURSING MANAGEMENT 748
SKILL 32.1 Using a Bed or Chair Exit Safety Monitoring Device 761
SKILL 32.2 Implementing Seizure Precautions 763
SKILL 32.3 Applying Restraints 771

CHAPTER 33
HYGIENE 780

Hygienic Care 781
Skin 781
NURSING MANAGEMENT 782
SKILL 33.1 Bathing an Adult or Paediatric Client 786
SKILL 33.2 Providing Perineal-Genital Care 795
Feet 797
NURSING MANAGEMENT 798
SKILL 33.3 Providing Foot Care 801
Nails 802
NURSING MANAGEMENT 802
Mouth 803
NURSING MANAGEMENT 804
SKILL 33.4 Brushing and Flossing the Teeth 809
SKILL 33.5 Providing Special Oral Care for the Unconscious Client 812
Hair 814
NURSING MANAGEMENT 814
SKILL 33.6 Providing Hair Care for Clients 817
SKILL 33.7 Shampooing the Hair of a Client Confined to Bed 818
Eyes 820
NURSING MANAGEMENT 820
Ears 824
SKILL 33.8 Removing, Cleaning and Inserting a Hearing Aid 825
Nose 826
Supporting a Hygienic Environment 826
Making Beds 828
SKILL 33.9 Changing an Unoccupied Bed 829
SKILL 33.10 Changing an Occupied Bed 833

CHAPTER 34
DIAGNOSTIC TESTING 839

Diagnostic Testing Phases 840
Blood Tests 841
SKILL 34.1 Obtaining A Capillary Blood Specimen to Measure Blood Glucose 848
Specimen Collection 851
SKILL 34.2 Collecting a Urine Sample for Culture and Sensitivity by Mid-stream Specimen of Urine (MSU) 855
Visualisation Procedures 861
Aspiration/Biopsy 863

CHAPTER 35
MEDICATIONS 875

Drug Standards 876
Legal Aspects of Drug Administration 877
Effects of Drugs 879
Drug Misuse 880
Actions of Drugs on the Body 881
Factors Affecting Medication Action 883
Routes of Administration 884
Medication Orders 886
Systems of Measurement 888
Administering Medications Safely 892
Oral Medications 898
SKILL 35.1 Administering Oral Medications 898
Nasogastric and Gastrostomy Medications 902
Parenteral Medications 902
SKILL 35.2 Preparing Medications from Ampoules 908
SKILL 35.3 Preparing Medications from Vials 909
SKILL 35.4 Mixing Medications Using One Syringe 911
SKILL 35.5 Administering an Intradermal Injection for Skin Tests 913
SKILL 35.6 Administering a Subcutaneous Injection 916
SKILL 35.7 Administering an Intramuscular Injection 922
SKILL 35.8 Adding Medications to Intravenous Fluid Containers 925
SKILL 35.9 Administering Intravenous Medications Using IV Push 929
SKILL 35.10 Administering Ophthalmic Instillations 933
SKILL 35.11 Administering Otic Instillations 936
SKILL 35.12 Administering Vaginal Instillations 940
Respiratory Inhalation 942
Irrigations 944

CHAPTER 36
SKIN INTEGRITY AND WOUND CARE 949

Skin Integrity 950
Types of Wounds 950
Pressure Ulcers 951
Wound Healing 955
NURSING MANAGEMENT 958
SKILL 36.1 Obtaining a Wound Drainage Specimen for Culture 960
SKILL 36.2 Irrigating a Wound 973

CHAPTER 37
PERIOPERATIVE NURSING 987

Types of Surgery 988
Preoperative Phase 990
NURSING MANAGEMENT 991
SKILL 37.1 Teaching Moving, Leg Exercises, Deep Breathing and Coughing 995
SKILL 37.2 Applying Antiemboli Stockings 1000
Intraoperative Phase 1003
NURSING MANAGEMENT 1004
Postoperative Phase 1005

NURSING MANAGEMENT 1007
SKILL 37.3 Managing Gastrointestinal Suction 1015
SKILL 37.4 Cleaning a Sutured Wound and Applying a Sterile Dressing 1019

VOLUME 3

UNIT 9
PROMOTING PSYCHOSOCIAL HEALTH 1031

CHAPTER 38
SENSORY PERCEPTION 1032

Components of the Sensory Experience 1033
Sensory Alterations 1033
Factors Affecting Sensory Function 1035
NURSING MANAGEMENT 1036

CHAPTER 39
SELF-CONCEPT 1056

Self-Concept 1057
Formation of Self-Concept 1057
Components of Self-Concept 1059
Factors that Affect Self-Concept 1060
NURSING MANAGEMENT 1062

CHAPTER 40
SEXUALITY 1073

Development of Sexuality 1074
Sexual Health 1077
Varieties of Sexuality 1079
Factors Influencing Sexuality 1080
Sexual Response Cycle 1081
Altered Sexual Function 1083
NURSING MANAGEMENT 1086

CHAPTER 41
SPIRITUALITY 1098

Spirituality Described 1099
Related Concepts 1100
Spiritual Development 1102
Spiritual Practices Affecting Nursing Care 1102
Spiritual Health and the Nursing Process 1106
NURSING MANAGEMENT 1106

CHAPTER 42
STRESS AND COPING 1118

Concept of Stress 1119
Models of Stress 1120
Indicators of Stress 1122
Coping 1126
NURSING MANAGEMENT 1127

CHAPTER 43
LOSS, GRIEVING AND DEATH 1139

Loss and Grief 1140
NURSING MANAGEMENT 1146
Dying and Death 1149
NURSING MANAGEMENT 1152

UNIT 10
PROMOTING PHYSIOLOGIC HEALTH 1163

CHAPTER 44
ACTIVITY AND EXERCISE 1164

Normal Movement 1166
Exercise 1171
Factors Affecting Body Alignment and Activity 1175
Effects of Immobility 1177
NURSING MANAGEMENT 1181
SKILL 44.1 Client-Assisted Bed Slide: One Nurse 1196
SKILL 44.2 Bed Slide: Two Nurses 1196
SKILL 44.3 Lateral Shift and Roll: Two Nurses 1197
SKILL 44.4 Logrolling a Client: Two to Four Nurses 1198
SKILL 44.5 Bed to Chair Slide: One or Two Nurses 1198
SKILL 44.6 Bed to Chair (4-Point Frame): Two Nurses 1199
SKILL 44.7 Assisting the Client to Sit on the Side of the Bed 1199
SKILL 44.8 Assisting the Client to Ambulate 1205

CHAPTER 45
SLEEP 1220

Physiology of Sleep 1221
Functions of Sleep 1223
Normal Sleep Patterns and Requirements 1223
Factors Affecting Sleep 1226
Common Sleep Disorders 1228
NURSING MANAGEMENT 1231

CHAPTER 46
PAIN MANAGEMENT 1246

The Nature of Pain 1247
Physiology of Pain 1249
NURSING MANAGEMENT 1257
SKILL 46.1 Providing a Back Massage 1280

CHAPTER 47
NUTRITION 1292

Essential Nutrients 1293
Energy Balance 1296
Body Weight and Body Mass Standards 1297
Factors Affecting Nutrition 1299
Nutritional Variations Throughout the Life Cycle 1303
Standards for a Healthy Diet 1307
Altered Nutrition 1313
NURSING MANAGEMENT 1313
SKILL 47.1 Inserting a Nasogastric Tube 1327
SKILL 47.2 Removing a Nasogastric Tube 1329
SKILL 47.3 Administering a Tube Feeding 1333
SKILL 47.4 Administering a Gastrostomy or Jejunostomy Feeding 1335

CHAPTER 48
URINARY ELIMINATION 1345

Physiology of Urinary Elimination 1346
Factors Affecting Voiding 1348
Altered Urine Production 1351
Altered Urinary Elimination 1352
NURSING MANAGEMENT 1354
SKILL 48.1 Applying a Uridome (Urisheath) Catheter 1364
SKILL 48.2 Performing Urinary Catheterisation 1367
SKILL 48.3 Performing Bladder Irrigation 1375

CHAPTER 49
FAECAL ELIMINATION 1386

Physiology of Defecation 1387
Factors that Affect Defecation 1389
Faecal Elimination Problems 1391
Bowel Diversion Ostomies 1395
NURSING MANAGEMENT 1398
SKILL 49.1 Administering an Enema 1406
SKILL 49.2 Changing a Bowel Diversion Stoma Appliance 1411

CHAPTER 50
OXYGENATION 1422

Structure and Function of the Respiratory System 1422
Respiratory Regulation 1426
Factors Affecting Respiratory Function 1426
Alterations in Respiratory Function 1428
NURSING MANAGEMENT 1429
SKILL 50.1 Administering Oxygen by Cannula, Face Mask, Non-rebreather Mask or Face Tent 1441
SKILL 50.2 Oropharyngeal and Nasopharyngeal Suctioning 1448
SKILL 50.3 Suctioning a Tracheostomy or Endotracheal Tube 1452
SKILL 50.4 Providing Tracheostomy Care 1455

CHAPTER 51
CIRCULATION 1467

Physiology of the Cardiovascular System 1468
Lifespan Considerations 1473
Factors Affecting Cardiovascular Function 1474
Alterations in Cardiovascular Function 1477
NURSING MANAGEMENT 1479
SKILL 51.1 Sequential Compression Devices 1484

CHAPTER 52
FLUID, ELECTROLYTE AND ACID–BASE BALANCE 1492

Body Fluids and Electrolytes 1493
Acid–Base Balance 1501
Factors Affecting Body Fluid, Electrolytes and Acid–Base Balance 1502
Disturbances in Fluid Volume, Electrolyte and Acid–Base Balances 1503
NURSING MANAGEMENT 1511
SKILL 52.1 Starting an Intravenous Infusion 1530
SKILL 52.2 Monitoring an Intravenous Infusion 1537
SKILL 52.3 Changing an Intravenous Container, Tubing and Dressing 1539
SKILL 52.4 Discontinuing an Intravenous Infusion 1540
SKILL 52.5 Changing an Intravenous Cannula to an Intermittent Infusion Lock 1541
SKILL 52.6 Initiating, Maintaining and Terminating a Blood Transfusion 1545

GLOSSARY G1

INDEX I1

About the Originating Authors

Audrey Berman received her BSN from the University of California, San Francisco, and later returned to that campus to obtain her MS in physiologic nursing and her PhD in nursing. Her dissertation was entitled *Sailing a course through chemotherapy: The experience of women with breast cancer*. She worked in oncology at Samuel Merritt Hospital prior to beginning her teaching career in the diploma program at Samuel Merritt Hospital School of Nursing in 1976. As a faculty member, she participated in the transition of that program into a baccalaureate degree and in the development of the master of science in nursing program. Over the years, she has taught a variety of medical–surgical nursing courses in the prelicensure programs. She currently serves as the dean of nursing at Samuel Merritt College (an affiliate of Sutter Health).

Dr Berman has travelled extensively, visiting nursing and health care institutions in Germany, Israel, Spain, Korea, Botswana, Australia, Japan and Brazil. She serves on the board of directors for the Bay Area Tumor Institute. She is a member of the American Nurses Association and Sigma Theta Tau and is a site visitor for the Commission on Collegiate Nursing Education. She has twice participated as an NCLEX-RN item writer for the National Council of State Boards of Nursing. She is certified as an advanced oncology nurse and as an AIDS educator and has presented locally, nationally and internationally on topics related to nursing education, breast cancer and technology in health care.

Dr Berman authored the scripts for more than 35 nursing skills videotapes in the 1990s. She was a co-author of the sixth and seventh editions of *Fundamentals of nursing* and, with Shirlee Snyder, co-author of the fifth edition of *Kozier & Erb's techniques in clinical nursing*.

Shirlee J. Snyder graduated from Columbia Hospital School of Nursing in Milwaukee, Wisconsin, and subsequently received a bachelor of science in nursing from University of Wisconsin–Milwaukee. Because of an interest in cardiac nursing and teaching, she earned a master of science in nursing with a minor in cardiovascular clinical specialist and teaching from the University of Alabama in Birmingham. A move to California resulted in becoming a faculty member at Samuel Merritt Hospital School of Nursing in Oakland, California. Shirlee was fortunate to be involved in the phasing out of the diploma and ADN programs and development of a baccalaureate intercollegiate nursing program. She held numerous positions during her 15-year tenure at Samuel Merritt College, including curriculum coordinator, assistant director—instruction, dean of instruction and associate dean of the Intercollegiate Nursing Program. She is an associate professor alumnus at Samuel Merritt College. Her interest and experiences in nursing education resulted in Shirlee obtaining a doctorate of education focused in curriculum and instruction from the University of San Francisco.

Dr Snyder moved to Portland, Oregon, in 1990 and taught in the ADN program at Portland Community College for eight years. During this teaching experience she became interested in computer-assisted instruction (CAI) and initiated web-based assessment testing for student learning. She presented locally and nationally on topics related to using multimedia in the classroom and promoting ethnic and minority student success.

Another career opportunity in 1998 led her to the Community College of Southern Nevada in Las Vegas, Nevada, where Dr Snyder was the nursing program director with responsibilities for the associate degree and practical nursing programs for five years. During this time she became involved in co-authoring the fifth edition of *Kozier & Erb's techniques in clinical nursing* with Audrey Berman.

In 2003, Dr Snyder returned to baccalaureate nursing education. She embraced the opportunity to be one of the nursing faculty teaching the first nursing class in the baccalaureate nursing program at the first state college in Nevada, which opened in 2002. She is currently the Associate Dean of the School of Nursing at Nevada State College in Henderson, Nevada.

Dr Snyder is an advisory board member for the Nevada Geriatric Education Center and a member of the American Nurses Association, Sigma Theta Tau, and a variety of task groups addressing the Southern Nevada nursing shortage. She has been a site visitor for the National League for Nursing Accrediting Commission and the Northwest Association of Schools and Colleges.

Dr Snyder's experiences in nursing education and teaching keep her current in nursing and nursing education. She appreciates all she has learnt from the students she has taught and her past and present faculty colleagues.

Barbara Kozier was educated in Vancouver, British Columbia, Canada. After obtaining a bachelor of arts degree from the University of British Columbia, she entered the nursing program at that institution. After four years of study she graduated with a bachelor's degree in nursing. She obtained a position at Bella Bella, an aboriginal settlement on the northern coast of British Columbia. She then nursed with the Victorian Order of Nurses providing home care. Following a position with a large general hospital as an acute care nurse in a medical–surgical unit, she taught medical and surgical nursing, pediatric nursing, psychiatric nursing and community nursing courses at the Vancouver General Hospital School of Nursing. Ms Kozier then enrolled at the University of Washington where she studied for two years, taught part time and obtained her master of nursing title.

Barbara is a member of three honour societies: Sigma Theta Tau (nursing), Pi Lambda Theta (education) and Delta Sigma Pi (Canadian Honor Society for University Women). Barbara was a member and a chair of many nursing and government committees. She wrote a number of texts and collaborated with Glenora Erb on four books: *Techniques of clinical nursing*, *Fundamentals of nursing*, *Concepts and issues in nursing practice* and *Essentials of nursing practice*.

Glenora Lea Erb was born in Calgary, Alberta, Canada. All her schooling took place in Calgary and, with her identical twin sister, she attended the Nursing School of Calgary General Hospital. She was awarded a gold medal when she graduated and was recognised as an outstanding bedside nurse.

Following two years travelling in Asia, Europe, India, Australia and New Zealand, Ms Erb returned to Vancouver and taught nursing at St Paul's Hospital School of Nursing, and later at a 2-year program at the British Columbia Institute of Technology. At this time she also coauthored textbooks on *Fundamentals of nursing*, *Techniques of clinical nursing*, *Concepts and issues in nursing practice* and *Essentials of nursing practice*.

Glen died at home on 24 December 2001 of breast cancer. Her death has meant that nursing has lost a highly skilled clinical nurse and her friends and family have lost a sensitive and giving person.

About the Australian Authors

The authors listed below are the Unit coordinators for the first Australian edition of *Fundamentals of Nursing*. For a complete list of contributors, see page xxiv.

Tracy Levett-Jones is the Deputy Head of School (Teaching and Learning) at the School of Nursing and Midwifery at the University of Newcastle. Her research interests include the phenomenon of 'belonging', clinical education, information and communicating technology (ICT) in health care, clinical reasoning and simulation. Tracy's doctoral research explored the clinical learning experiences of students in Australia and the United Kingdom. She has a broad clinical background and prior to her academic career worked as a women's health nurse, nurse educator and new graduate program coordinator. She is a co-author of the book *The clinical placement: An essential guide for nursing students*, the 2007 recipient of the NSW Minister for Education Quality Teaching Award and a 2008 recipient of an Australian Teaching and Learning Council Citation for Outstanding Contributions to Student Learning.

Trudy Dwyer completed a hospital-based nursing program at the Rockhampton Hospital, Queensland, where she developed a passion for critical care nursing and travel. Working her way around Australia she completed a Post-Basic Intensive Care course and a Bachelor of Health Science degree. After seven years travelling, she returned to Rockhampton to work as a nurse academic with Central Queensland University (CQU) and nurse clinician at the Rockhampton Hospital in intensive care. She then completed a Graduate Certificate of Flexible Learning, a Master's of Clinical Education from the University of New South Wales and a PhD. For the past 20 years she has been an active member of the Australian College of Critical Care Nurses and was the foundation president of the Central Queensland sub-branch of the ACCCN.

Trudy is currently a Senior Lecturer of Nursing in the Faculty of Sciences, Engineering and Health at CQU. Trudy has a long career as a nurse academic, coordinating undergraduate and postgraduate nursing courses and the Honours program. She is also a supervisor of Master's and PhD research students. Her research interests include resuscitation, clinical education and population health. She has published in international refereed scholarly journals, book chapters and is the co-author of the highly successful *Student nurse: Clinical survival guide*.

Majella Hales works at the Australian Catholic University in Brisbane. Originally hospital trained, she completed a post-registration Bachelor of Nursing, Master's of Applied Science (Research), and a Graduate Certificate in Higher Education. She is currently enrolled in a PhD investigating simulation in nursing education. Majella lectures primarily in the science and nursing units of the undergraduate nursing degree. She is passionate about teaching and learning and also offers critical care electives and online education for postgraduate students enrolled in cardiothoracic and emergency specialties.

With a long history in emergency and cardiothoracic intensive care, she has also been a member of teams providing critical care and education assistance to Solomon Islands, Fiji and Brazil.

Nichole Harvey has been a registered nurse since 1988 and an endorsed midwife since 1995. Nichole's qualifications include a Critical Care Certificate, Trauma Nursing Certificate, Non-Medical Vaccinator's Certificate, Bachelor of Nursing, Master of Nursing Studies and a Graduate Certificate in Education (Tertiary Teaching). Nichole has extensive clinical experience, having worked in both large city and rural and remote locations, as well as overseas. Her main area of clinical expertise is emergency and trauma nursing with a special interest in midwifery.

Nichole has held an academic role with the School of Nursing, Midwifery and Nutrition, James Cook University, since 2000. Since that time Nichole has been involved in the development and teaching of both nursing and midwifery curricula. Nichole is a reviewer for *the Australian Journal of Rural and Remote Health*, a past panel member for the Queensland Nursing Council's Midwifery Review Panel and a member of a number of local and state nursing and midwifery committees/organisations. Nichole is undertaking her PhD to investigate the triage and management of pregnant women in emergency departments.

Yoni Luxford is a Senior Lecturer in Nursing in the School of Health at the University of New England, Armidale, NSW.

Yoni has written a number of publications, and is co-author (with Anderson) of *Women growing older: A health and wellness manual for working with woman around 60 years & over*, published by the Southern Women's Health and Community Centre.

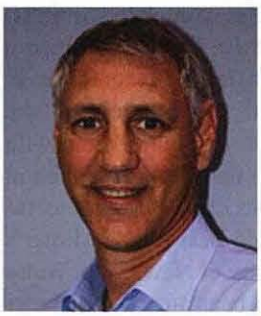
Lorna Moxham actively contributes to the nursing profession at state, national and international levels as well as to the broader community in numerous ways. Lorna has served on numerous ministerial committees as a member and chair and has held several leadership and governance roles both within the tertiary education sector and in industry. These currently include Chair of the CQUniversity HREC and Chair of the Rockhampton and District Health Community Council (HCC). As the current chair of the mental health peer review panel and a member of the education committee, Lorna's involvement in nurse regulation and licensure via the QNC enables her to actively contribute to on-going professional integrity and development.

Passionate about nursing, its past, present and future, Lorna has an extensive publication record and has led and been an investigator in many research projects. A fellow of the Australian College of Mental Health Nurses identifies her discipline expertise and passion.

Tanya Park is a registered nurse, an endorsed mental health nurse, an endorsed midwife and a credentialled mental health nurse. Her nursing experience includes private and public settings (in rural, remote and urban centres) including crisis, community and emergency mental health services. She joined the School of Nursing, Midwifery & Nutrition at James Cook University in 2005 and has had the opportunity to teach both undergraduate and postgraduate students. She is currently undertaking her PhD to investigate the 'Prevention of weight gain with second generation antipsychotics: a nurse-led intervention'. She is a Member of the Australian College of Mental Health Nurses, vice-president and member of the Management Committee for the Mental Illness Fellowship North Queensland, Secretary for the North Queensland Sub-Branch of the Australian College of Mental Health Nurses and reviewer for the *International Journal of Mental Health Nursing*.

Barbara Parker has worked extensively in the clinical environment, specifically in the areas of anaesthetics and recovery and orthopaedic and urology surgical nursing. She has published in the area of obesity and diabetes and has expertise in gastrointestinal and nutritional physiology as well as expertise in programs in obesity, impaired glucose tolerance and diabetes in both pharmacological and lifestyle interventions. Dr Parker is a Program Director in the School of Nursing and Midwifery and teaches within the undergraduate nursing program at the University of South Australia.

Kerry Reid-Searl is a Senior Lecturer at Central Queensland University. Kerry first completed her nursing qualifications in Tasmania. Since then she has gained experience in Queensland as a remote area nurse, a generalist nurse, a midwife and in more recent years she has worked in the clinical area of paediatrics. Kerry has over 17 years experience in undergraduate nursing education. She holds a Bachelor of Health Science degree, a Master's qualification in Clinical Education and a PhD. Kerry has a strong interest in clinical education, wound care and medication safety.



David Stanley began his nursing career in the days when nurses wore huge belt buckles and funny hats. He 'trained' as a registered nurse and midwife in South Australia and worked through his formative career in a number of hospitals and clinical environments in Australia. In 1993 he completed a Bachelor of Nursing at Flinders University, Adelaide (for which he was awarded the University Medal) and after a number of years of volunteer work in Africa he moved to the United Kingdom and worked as the Co-ordinator of Children's Services and as a nurse practitioner. He completed a Master's of Health Science degree at Birmingham University. For a short time he worked in Central Australia for Remote Health Services, before returning to the United Kingdom to complete his nursing doctorate, researching in the area of clinical leadership. He is currently teaching undergraduate and postgraduate nursing at Curtin University of Technology, Western Australia.

Preface to the First Australian Edition

Contemporary nursing in Australia and internationally is challenging, complex, dynamic and very rewarding. Many of our clients are older and sicker that they were a decade ago, often with complex health and psychosocial needs. This means that nurses today must be clinically competent, flexible and knowledgeable. They must have a broad and deep knowledge of physiology, pathophysiology, pharmacology, epidemiology, therapeutics, culture, ethics and law, as well as an understanding of evidence-based practice. Today's nurses have many roles and functions—clinician, educator, manager, researcher, to name just a few. They must be highly skilled with the ability to problem solve and they must possess sophisticated critical thinking skills. They must be life-long learners and confident in the use of information and communication technology. Nurses must be able to communicate effectively, with their clients, with each other and with other members of the health care team. Above all, they must care for their patients in ways that signify respect, acceptance, empathy, connectedness, cultural sensitivity and genuine concern.

Against this background, the first Australian edition of *Kozier and Erb's fundamentals of nursing* will be of immense benefit to both beginning students and those who are more advanced. This comprehensive textbook, with its unique Australian perspective, introduces the reader to vitally important nursing issues, concepts, practices and theories. The book will prepare students for practice in a range of diverse clinical settings and help them understand what it means to be a competent professional nurse in the twenty-first century.

LANGUAGE AND TERMINOLOGY

Patient, clients and health care consumers

In developing this text we have used terminology that is familiar and applicable to most Australians. To achieve this, we have used the terms 'client', 'patient' and 'health care consumer' throughout the text, applying each according to its context. This remains consistent with the terminology set out in the *Code of ethics for nurses in Australia*, published by the Australian Nursing and Midwifery Council (ANMC 2005).

Indigenous Australians

Throughout the text we have integrated issues relevant to the Indigenous Australian population. In covering the issues we have acknowledged the importance of using non-discriminatory and appropriate language to describe groups of people, policies and events, and have thus followed the guidelines as set out by NSW Health in its publication *Communicating positively: A guide to appropriate Aboriginal terminology*.

Nursing Diagnoses

In 2002, the North American Nursing Diagnosis Association (NANDA) was changed to NANDA-International (NANDA-I), in recognition of the broadening global scope of its membership. The NANDA-I taxonomy provides nurses with a shared language of diagnostic terminology and is particularly useful for the beginning nurse, and thus we have incorporated it into our text. We do acknowledge, however, that Australian nurses often adapt the NANDA-I terminology to meet their own context and specific client needs.

ORGANISATION OF THE BOOK

The detailed table of contents at the beginning of the book provides a clear structural map to the content included in the 10 units and 54 chapters.

Unit 1, The Nature of Nursing, clusters five chapters that provide comprehensive coverage of introductory concepts of nursing. The history of nursing in Australia and the Australian legal system provide a contextual backdrop to the chapters that follow.

In **Unit 2, Contemporary Health Care**, four chapters focus on contemporary health care topics such as health care delivery systems, community-based care, home care and the use of information and communication technology in health care.

Unit 3 is **The Nursing Process**. Six chapters introduce students to this important framework, with each chapter dedicated to a specific step of the nursing process. Chapter 10 outlines critical thinking and the nursing process. A Nursing in Action case study is used as the frame of reference for applying content in all phases of the nursing process in Chapter 11, Assessing, Chapter 12, Diagnosing, Chapter 13, Planning, and Chapter 14, Implementing and Evaluating. Chapter 15 covers documenting and reporting.

Starting in this unit and incorporated throughout the book, we refer to the new NANDA International (NANDA-I) nursing diagnoses.

In **Unit 4, Health Beliefs and Practices**, four chapters cover health-related beliefs and practices for individuals and families from a variety of different cultural backgrounds. This Unit emphasises the importance of cultural sensitivity when caring for clients from different backgrounds and it has a particular focus on Indigenous Australian people—a focus that continues throughout the book. Practical issues related to nursing management is an additional strength of this unit.

Unit 5, Lifespan Development, consists of five chapters that discuss development from conception to old age. Chapter 23 is a new chapter devoted specifically to the care of the older adult.

Unit 6, Integral Aspects of Nursing, discusses topics such as caring, communicating, teaching, leading, managing and delegating. These topics are all crucial elements for providing competent nursing care.

Unit 7, Assessing Health, covers vital signs and health assessment in two separate chapters, so beginning students can understand normal assessment techniques and findings.

Chapter 29, Vital Signs, introduces students to the health assessment skills that are crucial to competent professional practice.

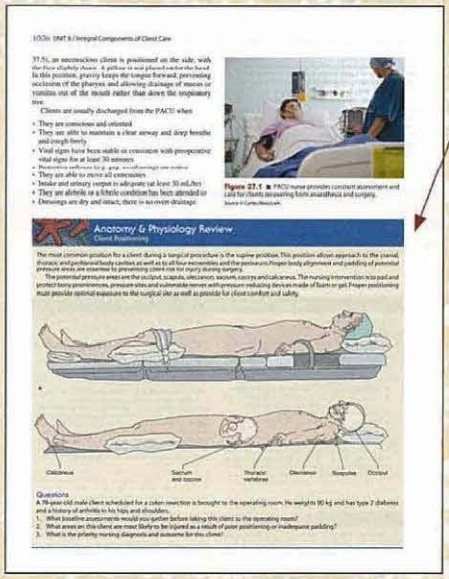
In **Unit 8, Integral Components of Client Care**, the focus shifts to those issues of relevance to all clients: asepsis, safety, hygiene, diagnostic testing, medications, wound care and preoperative care.

Unit 9, Promoting Psychosocial Health, includes six chapters that cover a wide range of areas that affect one's health. Sensory perception, self-concept, sexuality, spirituality, stress and loss are all things that a nurse needs to consider to properly care for a client.

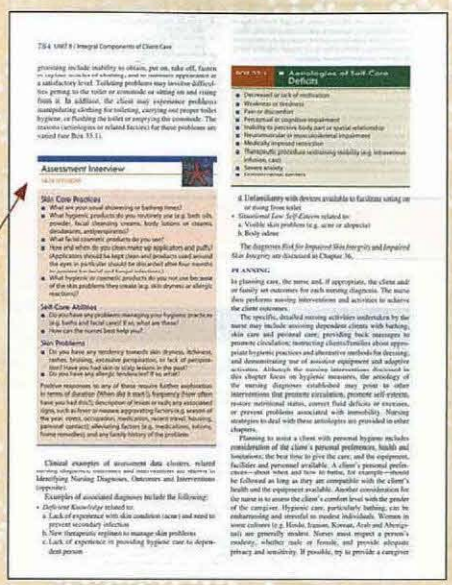
Unit 10, Promoting Physiologic Health, discusses a variety of physiologic concepts that provide the foundations for nursing care. These include activity and exercise; sleep; pain; nutrition; elimination; oxygenation; circulation; and fluid, electrolyte and acid–base balance.

FEATURES

For years, the American edition of *Kozier & Erb's Fundamentals of Nursing* has been a gold standard that helps students embark on their careers in nursing. This first Australian edition retains many of the features that have made this textbook the number-one choice of nursing students and lecturers. To further enhance this popular fundamentals textbook and ensure its appropriate application for Australian students, nursing academics from across Australia were invited to review and comments on each of the 52 chapters. Their detailed feedback has ensured that *Kozier & Erb's Fundamentals of nursing: First Australian edition* is a current, engaging and uniquely Australian textbook that will help students succeed in their nursing studies.



Anatomy & Physiology Reviews provides students with a quick review of the human bioscience that is fundamental to competent practice.

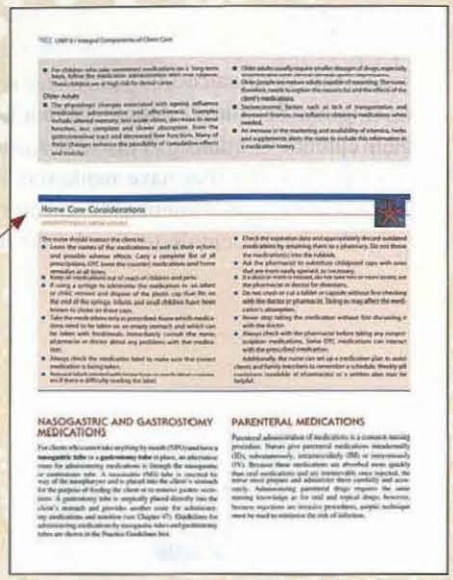


Assessment Interviews show students how to ask appropriate questions in their clinical encounters.

Client Teaching gives students a guide for what to say when educating clients.

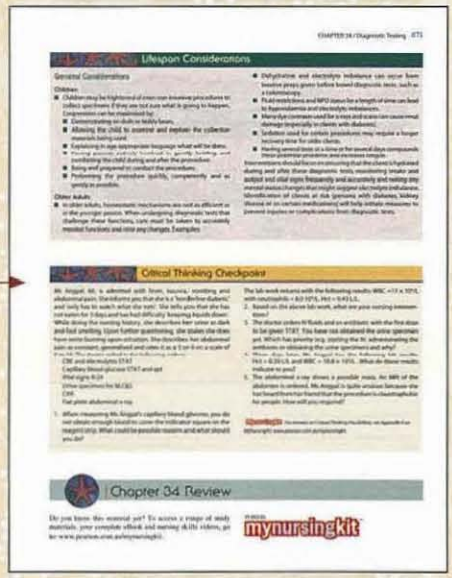
Clinical Alerts highlight special information such as safety issues.

Drug Capsules boxes help student learn the implications of certain medications that they may see in their clinical encounters.

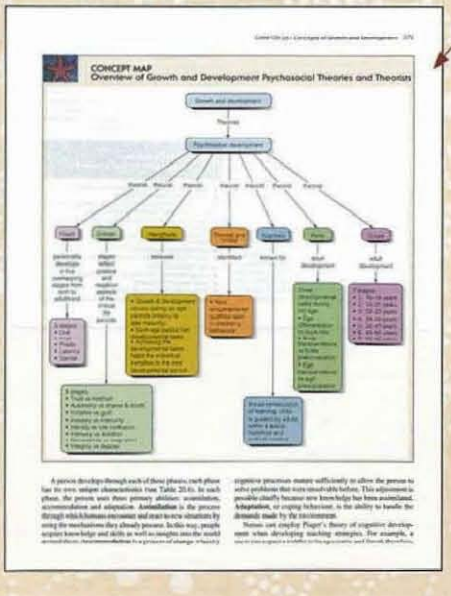


Home Care Considerations instruct students to consider adaptation for performing the skill in the home.

Practice Guidelines provide instant summaries of clinical dos and don'ts.



Critical Thinking Checkpoints provide brief case studies followed by questions that encourage students to analyse, compare, contemplate, interpret and evaluate information.



Concept Maps reinforce the steps of the nursing process by using different colours and by mapping difficult concepts diagramatically.

Step-by-step **Skills** help students understand techniques and practice sequence. They include a complete equipment list and full-colour photos and illustrations for critical steps.

Lifespan Considerations alert students to the needs of clients of different ages.

Real-World Practice provides students with a real-world perspective of practice.

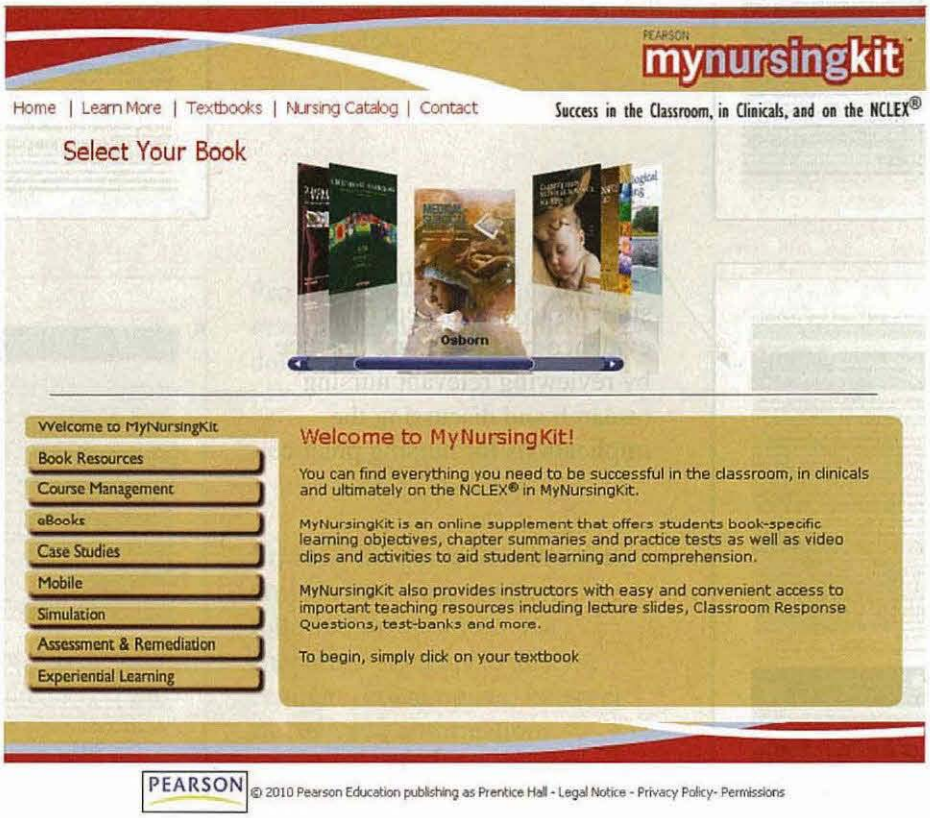
Research Notes introduce students to the concept of evidence-based nursing practice by reviewing relevant nursing research and discussing the implications for nursing practice.

SUPPLEMENTS FOR STUDENTS AND EDUCATORS

To supplement the textbook and facilitate active student learning, we include a variety of teaching and learning aids in our comprehensive supplements package.

MYNURSINGKIT <www.pearson.com.au/mynursingkit>

MyNursingKit is designed to help students apply concepts in the book. Each chapter contains learning outcomes, a glossary, case studies, care plan activities and application activities, as well as a full eBook. Instructors can use grade tracker to monitor student progress.



NURSING SKILLS VIDEOS offer students the essential foundation for competency in performing clinical nursing skills. The volumes in this series consist of comprehensive procedures, demonstrated in hundreds of realistic video clips, animations, illustrations and photographs. Throughout the videos, students will experience the real-life aspects of therapeutic communication between the nurse and the patient, patients' reaction to invasive skills, and issues related to culture, gender and age.

INSTRUCTORS' MANUAL. This manual contains a wealth of material to help instructors with the planning of curricula, particularly for first-year nursing programs. It includes chapter overviews, detailed lecture suggestions and outlines, learning outcomes, teaching tips, and more, for each chapter.

POWERPOINT SLIDES and DIGITAL IMAGE LIBRARY. To facilitate classroom presentation, this dynamic, multimedia resource pairs key points covered in the chapters with images from the textbook to encourage effective lectures and classroom discussions.

COMPUTERISED TEST BANK. The test bank allows educators to customise the bank of questions to meet specific teaching needs and add/revise questions as needed. It consists of more than 2,000 true–false, multiple-choice, short-answer, essay and matching questions complete with solutions. Using Pearson's TestGen software, educators can create professional-looking exams in just minutes by building tests from the existing database of questions, editing questions, or adding their own. TestGen also allows instructors to prepare printed, network and online tests.

ACKNOWLEDGMENTS

We extend a sincere thank-you to the talented team involved in the first Australian edition of this book: the contributors and reviewers who provided content and very helpful feedback; the nursing students, for their questioning minds and motivation; and the nursing academics, who provided many valuable suggestions for this edition.We also thank the editorial team at Pearson, including Michelle Aarons, acquisitions editor, for commissioning this project and putting a stellar team of authors together; Michael Stone, development editor, for keeping our noses to the grindstone; Katie Millar, senior project editor, for producing this book with precision; and the copyright and pictures team including Louise Burke and Emma Gaulton. Many of the new photos in the 1st edition were photographed by Beau Lark and overseen by Clara Williams, director of photography for Corbis, on site at Central Queensland University, and ably hosted by our terrific authors Dr Lorna Moxham and Dr Trudy Dwyer.

Tracy Levett-Jones, Trudy Dwyer, Majella Hales, Nichole Harvey, Yoni Luxford, Lorna Moxham, Tanya Park, Barbara Parker, Kerry Reid-Searl and David Stanley

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