

Contents

| | |
|---|----|
| Foreword: A "New Looking Glass" for Behavioral Medicine | ix |
| <i>Gary E. Schwartz</i> | |
| Chapter 1 | |
| Self-Regulation Theory in Behavioral Medicine: | |
| An Introduction | 1 |
| <i>Wolfgang Linden</i> | |
| Historical Developments | 2 |
| Potential of the Self-Regulation Theory | 7 |
| The Modified Health Belief Model | 8 |
| References | 11 |
| Chapter 2 | |
| Biological Barriers in the Treatment of Alcoholism | 13 |
| <i>David M. Lawson and Michelle Craske</i> | |
| Behavioral Treatments for Alcoholism | 14 |
| Biological Factors Associated with Alcohol Abuse | 18 |
| <i>Neuropsychological Deficits</i> | 19 |
| <i>Tolerance and Dependence</i> | 20 |
| <i>Genetic Factors</i> | 22 |
| <i>Fluid and Electrolyte Balance</i> | 24 |
| Implications of Biological Factors Associated with Alcohol | |
| Consumption for the Behavioral Treatment of Alcoholism . . . | 25 |
| <i>Neuropsychological Deficits</i> | 26 |
| <i>Tolerance and Dependence</i> | 27 |
| <i>Genetic Factors</i> | 29 |
| <i>Fluid and Electrolyte Balance</i> | 30 |
| References | 31 |

| | |
|---|----|
| Chapter 3 | |
| Causes and Effects of Obesity: | |
| Implications for Behavioral Treatment | 35 |
| <i>Donna Romano White and Norman M. White</i> | |
| Causes of Obesity | 36 |
| Ingestional Factors | 36 |
| Postingestional Factors | 38 |
| Treatment Considerations | 42 |
| Effects of Obesity | 47 |
| Ingestional Adaptations | 48 |
| Postingestional Adaptations | 49 |
| Implications for Treatment | 51 |
| A Biobehavioral Treatment Model | 56 |
| References | 57 |
| Chapter 4 | |
| Biobehavioral Approaches to Smoking Control | 63 |
| <i>J. Allan Best, Patricia E. Wainwright, David E. Mills, and Susan A. Kirkland</i> | |
| Smoking Behavior and Learning | 65 |
| Operant and Social Learning Theories | 66 |
| Associative Learning Theory | 67 |
| Classical Conditioning Theory | 68 |
| Biobehavioral Processes in Smoking | 69 |
| Pharmacology of Nicotine | 69 |
| Nicotine as an Addictive Substance | 72 |
| Self-Regulatory Aspects of Smoking | 74 |
| Models of Smoking Processes | 78 |
| Smoking Initiation | 78 |
| Maintenance of Smoking Behavior | 80 |
| Smoking Reduction | 82 |
| Current Approaches to Smoking Prevention and Reduction | 83 |
| Smoking Prevention | 83 |
| Smoking Reduction | 84 |
| Maintenance of Smoking Reduction | 86 |
| Implications and Conclusions | 87 |
| Arousal and Performance Functions | 88 |
| Affect and Drive | 89 |
| Research Implications | 89 |
| References | 91 |

Chapter 5

Considerations in the Treatment of Insomnia 101
Peter H. Van Oot and Thomas D. Borkovec

The Complaint of Insomnia 102

Traditional Treatments for Insomnia 104

Behavioral Treatments 106

Biological Considerations 111

Medications 112

Sedative-Hypnotics 114

Stimulants, Antidepressants, and Others 117

Respiratory Disorders 119

Hypoventilation Syndromes 121

Apneas 121

Circadian Rhythm Disorders 124

Aging 127

Nocturnal Myoclonus and Restless Legs 130

Additional Considerations 131

Recommendations 132

References 133

Chapter 6

Self-Regulation and Type A Behavior 141
Nanette M. Frautschi and Margaret A. Chesney

Preliminary Findings of the Recurrent Coronary Prevention
 Project: Attrition and Outcome Data 143

A Model of Self-Regulation and Type A Behavior 144

Physiological Mechanisms in Type A Behavior 145

Behavioral Self-Regulatory Mechanisms in Type A:
 Seeking Out Challenge 146

Cognitive Self-Regulatory Mechanisms in Type A: Symptom
 Denial, Selective Attention, and Attributional Biases 147

Selective Attention and Task Orientation 149

Failure: Personal Responsibility Attributions 150

Physiological Consequences of Self-Regulatory Mechanisms 151

Implications for Treatment 152

Timing of the Intervention 152

Types of Interventions 153

Summary and Directions for Future Research 156

References 158

Chapter 7

| | |
|---|-----|
| Biopsychological Barriers to the Behavioral Treatment of Hypertension | 163 |
| <i>Wolfgang Linden</i> | |
| Behavioral Treatments | 164 |
| Physiological Regulation of Normal and Abnormal Blood Pressure Levels | 166 |
| Biopsychological Sequelae of High Blood Pressure | 179 |
| Implications of Biological and Psychobiological Findings for the Behavioral Treatment of Hypertension | 182 |
| References | 186 |

Chapter 8

| | |
|--|-----|
| Psychophysiological Disorders of the Gastrointestinal Tract' | 193 |
| <i>Harry S. Shabsin and William E. Whitehead</i> | |
| Irritable Bowel Syndrome (IBS)..... | 194 |
| Psychological Considerations | 196 |
| <i>Anxiety</i> | 196 |
| <i>Hysteria</i> | 197 |
| <i>Depression</i> | 198 |
| <i>Illness Behavior</i> | 198 |
| <i>Abdominal Pain</i> | 199 |
| <i>Placebo Response</i> | 199 |
| Physiological Factors | 201 |
| <i>Motility</i> | 201 |
| <i>Slow-Wave Myoelectric Activity</i> | 203 |
| <i>Myoelectrical Spike Activity</i> | 204 |
| Disorders of the Esophagus | 206 |
| <i>Esophageal Spasms</i> | 206 |
| <i>Globus Hystericus</i> | 207 |
| Psychological and Behavioral Treatment Approaches for IBS and Esophageal Disorders | 208 |
| Summary | 212 |
| References | 214 |

Chapter 9

| | |
|----------------------------|-----|
| Asthma | 221 |
| <i>Thomas L. Creer</i> | |
| Pathophysiology | 222 |
| <i>Intermittence</i> | 224 |

| | |
|---|-----|
| <i>Variability</i> | 227 |
| <i>Reversibility</i> | 229 |
| Psychological Factors | 232 |
| <i>Emotional Factors</i> | 232 |
| <i>Suggestion</i> | 234 |
| The Self-Management of Asthma | 236 |
| <i>Rationale</i> | 237 |
| <i>Self-Management Training</i> | 238 |
| <i>Design</i> | 242 |
| <i>Dependent Variables</i> | 244 |
| <i>Results</i> | 246 |
| Conclusions | 250 |
| References | 252 |
| Chapter 10 | |
| Pain | 257 |
| <i>Ruth V. E. Grunau and Kenneth D. Craig</i> | |
| Acute versus Chronic Pain | 259 |
| Psychological Approaches to Pain Management | 260 |
| <i>Operant Models</i> | 261 |
| <i>Cognitive-Behavioral Methods</i> | 262 |
| Biofeedback | 263 |
| Childbirth | 266 |
| Biological Mechanisms in Pain | 269 |
| <i>Endogenous Pain Modulation</i> | 271 |
| Conclusions | 274 |
| References | 275 |
| Chapter 11 | |
| Understanding and Preventing Relapse | 281 |
| <i>Kelly D. Brownell, G. Alan Marlatt, Edward Lichtenstein, and G. Terence Wilson</i> | |
| Commonalities and Differences in the Addictions | 282 |
| Rates and Definition | 283 |
| Lapse and Relapse: Process versus Outcome | 284 |
| The Nature and Process of Relapse | 285 |
| The Need for a Natural History | 285 |
| Stages of Change | 288 |
| The Consequences of Relapse | 290 |
| Relapse: Failure or Incremental Learning? | 291 |
| Determinants and Predictors of Lapse and Relapse | 291 |

| | |
|---|-----|
| Individual and Intrapersonal Factors | 292 |
| <i>Negative Emotional States</i> | 292 |
| <i>Inadequate Motivation</i> | 293 |
| <i>Response to Treatment</i> | 293 |
| <i>Coping Skills</i> | 294 |
| Physiological Factors | 294 |
| Environmental and Social Factors | 296 |
| <i>Social Support</i> | 296 |
| <i>Environmental Stimuli and External Contingencies</i> | 297 |
| Individual, Environmental, and Physiological Factors: | |
| An Interaction | 298 |
| Prevention of Lapse and Relapse | 299 |
| <i>Traditional Approaches versus the Prevention Model</i> | 299 |
| <i>Stage 1: Motivation and Commitment</i> | 300 |
| <i>Stage 2: Initial Behavior Change</i> | 305 |
| <i>Stage 3: Maintenance</i> | 307 |
| <i>Effects of Existing Programs</i> | 310 |
| Recommendations for Research | 311 |
| Conclusions | 311 |
| References | 313 |
| Index | 321 |