Part I: Nature of Stuttering

1 What Is Stuttering?
   Defining Stuttering: Bases and Aims
   Why is the Definition Important? Practical Implications
   Population Identification
   Quantification and Measurement
   Evaluation of Clinical Progress
   What to Define: Atypical (Abnormal) Speech or Complex Disorder?
   Stuttering as Atypical Speech
      Normally Fluent Speech Production
      Normal Disfluency or Instances of Stuttering?
      Defining Stuttering as Speech Events
      Examples of Definitions of Stuttered Speech
      Fluent Speech of People Who Stutter
   Stuttering as a Complex Disorder
      Multidimensional Characteristics of the Stuttering Disorder
      Diversity of Disorder-Oriented Definitions
      Examples of Definitions of Stuttering as a Complex Disorder
      Other Views
      Our Point of View

Summary

Study Questions and Discussion

Topics

Websites

Suggested Readings

2 Who and How Many Stutter?
   Incidence and Prevalence
      Interpretation of Incidence and Prevalence
Table of Contents

Data

The Significance of Incidence and Prevalence
- Implications for Research and Theory
- Implications for Professional Training
- Implications for Clinical Service Delivery
- Implications for Public Awareness and Funding

Research Methodology for Incidence and Prevalence
- Approaches to Prevalence Research
- Approaches to Incidence Research
- Defining Stuttering
- Selecting Informants

Prevalence: Findings
- Early Investigations
- Current Research

Incidence: Findings

Biological Factors in Stuttering Prevalence and Incidence
- Familiality
- Age
- Gender

Geography, Race, and Culture
- Geography
- Race
- Culture
- Bilingualism

Prevalence in Clinical Subpopulations
- Hearing Impairment
- Cleft Palate
- Cognitive Impairment
- Other Groups

Summary

Study Questions and Discussion

Topics
Websites

Suggested Readings

3 When and How Does Stuttering Begin? How Does It Develop?
- Theoretical and Clinical Significance
- Onset
Table of Contents

General Issues and Research Methods
Studies Concerning Onset
When Does Stuttering Begin?
How Does Stuttering Begin?
Features of Early Stuttering
Emotional and Physical Health
Phonology and Language

Development
Traditional Models of Developmental Progression
Differential Developmental Models

Natural Recovery
The Statistical Evidence
Retrospective Evidence
Indirect Longitudinal Evidence
Direct Longitudinal Evidence
Implications of Developmental Findings
Predictive Factors

Summary
Onset
Development
Study Questions and Discussion
Topics
Suggested Readings

4 Where Does Stuttering End? What Are Its Advanced Characteristics?
Advanced Stuttering
Speech Disfluency
Types of Disfluency
Major Disfluency Classes
Dimensions of Disfluency
Physical Concomitants
Other Speech Characteristics
Voice
Speaking Rate
Emotional Characteristics and Cognition
Emotional Reactions
Cognition
Concomitant Disorders
The Dynamics of Advanced Stuttering
Patterns of Occurrence
Loci of Stuttering
Conditions That Diminish Stuttering
Conditions That Increase Stuttering
Table of Contents

Summary
Study Questions and Discussion
Topics
Suggested Readings

Part II: Explanations of Stuttering

5 Why Do People Stutter? Evaluating Theories and Models
  Theories and Models
    How to Analyze a Stuttering Theory
    Science, Superstition, and Stories About Stuttering
    The Need for an Integrated Framework
  Criteria for Strong Theories and Models
  Testing Theories and Models
  Are There Stuttering Subtypes?
  Summary
  Study Questions and Discussion
  Topics
  Suggested Readings

6 Is Stuttering Psychological? Theories and Investigations
  Is Stuttering Psychological?
  Psychoemotional Theories
    Psychoanalytic Theory
    Stuttering as a Psychoemotional Disturbance
    Personality Factors in Stuttering
    Summary of Psychoemotional Theories
  Psychobehavioral Theories
    Stuttering as a Reactive Avoidance Behavior
    Stuttering as a Conditioned Anxiety Response
    The Conflict Theory of Stuttering
    Stuttering as an Operant Behavior
    Two-Factor Theory of Stuttering
    The Anticipatory-Struggle Hypothesis
    The Demands-Capacities Model
    Summary of Psychobehavioral Theories
  Psycholinguistic Theories
    Psycholinguistic Processes Resulting in Fluent Speech
    Psycholinguistic Factors in Stuttering
Table of Contents

The Covert-Repair Hypothesis
The Fault Line Hypothesis
The Neuropsycholinguistic Theory
Related Areas of Research
Summary of Psycholinguistic Theories

Summary
Study Questions and Discussion
Topics
Suggested Readings

7 Is Stuttering Biological? Theories and Investigations
Introduction
Genetic Perspectives
  Familial Incidence
  Twin Studies
  Family Aggregation
  Biological Genetics
  Summary of Genetic Perspectives
Neurological Perspectives
  Cerebral Hemispheric Dominance
  The Modern Era of Brain Research
  Summary of Neurological Perspectives
Auditory Perspectives
  The Role of Audition
  Summary of Auditory Perspectives
Motor Perspectives
  Motor Learning Theories of Stuttering
  Brainstem Reflexes: A Disorder of Movement
  Sensorimotor Dysfunction
  Evidence of Motor Differences
  Multifactorial Theory from a Motor Perspective
  Summary of Motor Perspectives

Summary
Study Questions and Discussion
Topics
Suggested Readings

Part II: Clinical Management of Stuttering

8 Assessment of Adults and School-Age Children
  General Considerations
  Assessment of Stuttering
<table>
<thead>
<tr>
<th>Section</th>
<th>Subsections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td></td>
</tr>
<tr>
<td>Special Considerations for School-Age Children</td>
<td></td>
</tr>
<tr>
<td>Assessment Objectives</td>
<td></td>
</tr>
<tr>
<td>Background and Case History</td>
<td></td>
</tr>
<tr>
<td>Observations and Examinations: Speech</td>
<td>Speech Sample Context</td>
</tr>
<tr>
<td></td>
<td>Speech Sample Size</td>
</tr>
<tr>
<td></td>
<td>Measures of Stuttering or Disfluency</td>
</tr>
<tr>
<td></td>
<td>Speech Recordings and Transcription</td>
</tr>
<tr>
<td></td>
<td>Procedures for Speech Sample Analysis</td>
</tr>
<tr>
<td></td>
<td>Disfluency Reference Data</td>
</tr>
<tr>
<td></td>
<td>Stuttering Severity</td>
</tr>
<tr>
<td></td>
<td>Physical Concomitants</td>
</tr>
<tr>
<td></td>
<td>Speaking Rates</td>
</tr>
<tr>
<td></td>
<td>Voice and Other Communication Skills</td>
</tr>
<tr>
<td>Observations and Examinations: Other Domains</td>
<td>Situational Rating Protocols</td>
</tr>
<tr>
<td></td>
<td>Attitude Rating Scales</td>
</tr>
<tr>
<td>Interpretations and Treatment Recommendations</td>
<td>Diagnosis</td>
</tr>
<tr>
<td></td>
<td>Treatment Recommendations</td>
</tr>
<tr>
<td></td>
<td>The Diagnostic Report</td>
</tr>
<tr>
<td>Summary</td>
<td></td>
</tr>
<tr>
<td>Study Questions and Discussion</td>
<td></td>
</tr>
<tr>
<td>Topics</td>
<td></td>
</tr>
<tr>
<td>Suggested Readings</td>
<td></td>
</tr>
<tr>
<td>9 Assessment of Preschool-Age Children</td>
<td></td>
</tr>
<tr>
<td>Challenges, Objectives, and Settings for the Initial Evaluation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stuttering versus Normal Disfluency: A Diagnostic Challenge</td>
</tr>
<tr>
<td></td>
<td>Other Key Diagnostic Issues</td>
</tr>
<tr>
<td></td>
<td>Objectives of the Initial Evaluation</td>
</tr>
<tr>
<td></td>
<td>Setting and Preparations</td>
</tr>
<tr>
<td>The Case History</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comments on Part I</td>
</tr>
<tr>
<td></td>
<td>Comments on Part II</td>
</tr>
<tr>
<td></td>
<td>Comments on Part III</td>
</tr>
<tr>
<td></td>
<td>Comments on Part IV</td>
</tr>
<tr>
<td>Collecting Clinical Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obtaining Speech Samples</td>
</tr>
</tbody>
</table>
Table of Contents

Other Related Assessments
Analyzing Clinical Data
  Disfluency Frequency and Types
  Disfluency Length
  Speech Rate
Interpreting Clinical Data
  Disfluency Status
  Stuttering Severity
  Borderline Cases
Making Prognosis
  Past Prediction Guidelines
  Recent Developments: The Illinois Prediction Criteria
Concluding Parent Conference
  Diagnosis, Prognosis, and Recommendations
  Parent Counseling
Summary
Study Questions and Discussion
Topics
Suggested Readings

10 Stuttering Therapy Overview: Issues and Directions
Introduction
Theoretical Considerations
The Objectives of Therapy
  Increased Fluency
  Managed Stuttering
  Improved Cognitive-Emotional Adjustment
General Therapeutic Approaches
Clinical Applications
  Developing Appropriate Treatment Objectives
  Individual versus Group Therapy Sessions
  Implementing Treatment
  Skill Maintenance and Prevention of Relapse
Evidence-Based Practice
  A Case Study to Illustrate the Steps in EBP
The Client-Clinician Relationship
  Empathy
  Self-Congruence
  Unconditional Positive Regard
Table of Contents

Clinical Research
  Evaluating Efficacy
  Group Studies
  Single-Subject Studies
  Issues Regarding Efficacy Research
Ethics
  Questions Concerning Ethics
Summary
Study Questions and Discussion
Topics
Suggested Readings

11 Therapy for Adults: Focus on Emotional Reactions
  Adults Who Stutter
Treatments
  Psychotherapy and Relaxation
    Psychoanalysis
    Rational-Emotive Therapy
    Relaxation
    Summary of Psychotherapy and Relaxation
  Desensitization
    Systematic Desensitization
    Desensitization in Vivo
    Desensitization to Stuttered Speech
    Desensitization to Listeners
    Summary of Desensitization
  Assertiveness Training and Group Therapy
    Assertiveness Training
    Group Therapy
    Summary of Assertiveness Training and Group Therapy
  Antianxiety Drugs
    Why Drugs?
    Drugs for What?
    Studies of Pharmaceutical Treatments for Stuttering
    Summary of Antianxiety Drugs
Summary
Study Questions and Discussion
Topics
Suggested Readings

12 Therapy for Adults: Focus on Stuttering and Fluency
# Table of Contents

**Introduction**

**Identification**
- Rationale
- Phase I: Awareness
- Phase II: Analysis
- Summary of Identification

**Modification**
- Step I: Post-Block Modification
- Step II: In-Block Modification
- Step III: Pre-Block Modification
- Summary of Modification

**Fluency-Focused Therapies**
- Fluency-Shaping Basics
- Rhythmic Speech
- Stretched Speech
- Behavioral Reinforcement
- Summary of Fluency-Focused Therapies

**Fluency-Inducing Instruments**
- Metronome Pacing of Speech
- Auditory Masking
- Altered Auditory Feedback
- Biofeedback
- Summary of Fluency-Inducing Instruments

**Integrated Approaches**
- Computer and Mass Media-Based Therapy

**Summary**

**Study Questions and Discussion**

**Topics**

**Suggested Readings**

**13 Therapy for School-Age Children**

**School-Age Children Who Stutter**
- Awareness and Emotional Reactions
- Overt Stuttering
- Academic Performance
- The School and Home Factors
- The Age Factor

**Prognosis and Objectives for Therapy**
- Why Is Stuttering in School-Age Children Difficult to Treat?
- Therapy Alternatives and Objectives

**Home and School Environments**
- Counseling Parents
- Teachers and Peers

**Therapy: Explaining Stuttering**
# Table of Contents

- The Speech System
- What Can Go Wrong with the Speech System?
- Experimentation
- Therapy: Focus on Emotional Reactions
  - Adapted Desensitization Activities
  - Teasing and Assertiveness
  - Bullying
- Therapy: Focus on Stuttering and Fluency
  - Identification and Analysis
  - Changing Speech
  - Stuttering Modification
  - Fluency Facilitating Speaking Skills
  - Generalization
- Other Therapy Programs
  - Conditioning Fluent Speech
  - Family Stuttering Programs
  - Group Therapy
- Clinical Research
- Summary
- Study Questions and Discussion
- Topics
- Websites
- Suggested Readings

## 14 Therapy for Preschool-Age Children

- General Considerations
- A Brief Historical Review
  - Direct Treatments
  - Indirect Treatments
  - Winds of Change
- Current Issues Concerning Early Intervention
  - Factors Pertaining to Stuttering
  - Factors Pertaining to Age
  - Who Should Be Treated? When?
- Current Therapies
  - Focus on Speech/Motor Patterns
  - Focus on Operant Conditioning
  - Focus on Parent-Child Interaction
  - Focus on Emotionality
- Clinical Research
  - Past and Current Research
Table of Contents

Weaknesses and Other Issues in Research
General Reflections
Summary
Study Questions and Discussion
Topics
Suggested Readings
15 Other Fluency Disorders; Cultural and Bilingual Issues
Introduction
Childhood Disorders
    Unusual Breathing Patterns
    Word-Final Disfluency
    Language Disorders
    Cluttering
Acquired Stuttering
    Neurogenic Stuttering
    Psychogenic Stuttering
    Malingering
Stuttering in Bilingual and Multicultural Populations
    Incidence
    Diagnosis
    Treatment
Summary
Study Questions and Discussion
Topics
Websites
Suggested Readings
References
Index