

# SPHSC 500

## Autumn 2009

Clinical Methods  
Lesley B. Olswang, Ph.D.  
"Planning Treatment"

### Planning Treatment – Concepts/decisions

*For the purpose of planning treatment, determine*

- Who and what behaviors to treat
- Specific goals (long term) & objectives (short term) for treatment
- Existing evidence for treatment
- Documentation of baseline performance
- Modifiability and response to teaching for planning sequential teaching program

You'll see the obvious overlap with the first section of the course – Assess/Evaluate for diagnosis and recommendations – now going deeper.

## Planning Treatment - Tools

- Dynamic Assessment (elaborated)
- Behavioral Observation
  - Naturalistic
  - Structured - Probe Measures
- Interview
- Existing Data

## Planning Treatment Who/What to treat

### Conceptual Issues

- Stakeholders
- Gottlieb – what to expect re. change
- Selecting a target: goals and objectives

Reading: Hegde Chapter 3 and 9

### Tools for Data Collection

- Observation
- Dynamic Assessment

Readings: Revisit Bogdan & Biklen; Hasson & Joffe

## Planning Treatment

Consider Stakeholders when deciding who/what to treat.

1. Direct consumer:
2. Indirect consumer:
3. Immediate community:
4. Extended community:

Who are these stakeholders?

*(handout)*

## What is Treatment Designed to Accomplish? Expectations for Change

- Teach new skill/behavior\*
  - Increase a skill/behavior\*
  - Substitute a skill/behavior\*
  - Reduce a skill/behavior\*
  - Maintain a skill/behavior\*
  - Accept behavior – and change environment
- \*Remember for all of these, treatment can involve all stake holders (meaning client may be other than the person with the impairment)

## What do you expect to change?

- Treatment target (revisit WHO)
  - Can you change the etiology? (Body Function and Structures?)
  - Behaviors in context – Functional Targets (Activities and Participation)
  - Environmental factors

## Expectations for Change

Gottlieb's Types of Change

- Facilitation
  - Induction
  - Maintenance
- (handout)*

## Gottlieb's Types of Change

- **Facilitation** – to trigger change in behavior that would have eventually changed on its own. **Treatment serves to facilitate, trigger, or start a change.**  
(e.g., treatment of semantic relations, morphology to children with SLI)

## Gottlieb's Types of Change

- **Induction** – to bring about change that would not have occurred on its own. **Treatment is necessary to reach the end point** (e.g., AAC treatment; formal treatment of sign language)

## Gottlieb's Types of Change

- **Maintenance** – to preserve behaviors that might otherwise deteriorate. (e.g. rate of speech in Parkinsonism)

## Who is the client?

Depending upon the problem, and what needs to be changed, need to decide who is the client – direct consumer?

Person with disorder?

Family/Significant Others?

Teacher?

Employer?

Other?

## Service Delivery

- “Actual – Direct Treatment” - Others as recipient of treatment
- Family Member/significant others as clinician – parent/caretaker, spouse, children (peers)
- Counseling
- Coaching
- Collaboration with other professionals – teacher, other clinical specialists (consultation to co-treatment)

Define Each

What are the strengths? Limitations? Challenges?

## Consider generally

### Age

- Birth to three
- Preschool
- School Age
- Adolescents
- Adults

### Settings and Participants

- Home
  - Family
  - Friends
- School
  - Teacher
  - Peers/Friends
- Work
  - Boss
  - Colleagues
- Hospital/Clinic
  - Professionals

## Selecting Treatment Targets

- Normative Strategy (Hegde)
  - Developmental
- Client Specific Strategy (Hegde)
  - Rehabilitation

## Role of Theory

- Theoretical underpinnings for particular disorder types and possible treatment targets
    - Why you might use one strategy over another or select a particular behavior
- (Disorder courses)



## Normative Strategy

- **Basic Assumptions** (Hegde, pg. 67)
  - Theoretical underpinning
    - There are age-based norms that will serve as target behaviors for individual clients
    - There is a fixed sequence in which speech and language behaviors are learned by most if not all individuals
    - The sequence found in normally developing individuals is the best sequence to use in clinical training

## Normative Strategy

- Does normative strategy only apply to “pediatrics”?
  - CA versus level of functioning
  - “Developmental” might be a better term
- What norms (developmental hierarchies) do you know?

## Developmental/Normative

- What do we know about different disorders and whether a normative/developmental approach would work?
  - Autism
  - Cerebral Palsy
  - Developmental Disabilities
  - Fluency/Stuttering

## Developmental/Normative

- Determine level of functioning
- Consider severity
- Consider developmental hierarchy –  
Possible target – what is critical for this developmental (age) level
- Profile communication (form, content, use; syntax, semantics, phonology, pragmatics)  
(receptive/expressive)(verbal/nonverbal)

## Developmental/Normative

- Consider the WHO
- Readiness (Zone of Proximal Development)
- Prerequisites/precursors
  - Cognition
  - Motor
  - Sensory
  - Social/Emotional
- Building block for other behaviors/skills
- Generalization

## Client Specific Strategy

- Basic Considerations (Hegde)
  - Role of culture and environment – what is important in the client's environment (frequency with which a behavior might occur)
  - Usefulness and relevancy (regardless of frequency, how important to client)
  - Potential for generalization and maintenance
  - Building blocks for new behaviors
  - Potential for change

## Client Specific Strategy

- What is the basic theoretical underpinning?
  - Is this only appropriate for “adults”?
  - Rehabilitation – acquired disorders
  - Applicable to developmental
- What is the role of medicine?

- What do we know about different disorders and whether a client specific approach would work?
  - Aphasia
  - Parkinson’s
  - Voice – laryngectomy, dysphonia
  - Fluency

## Acquired/Rehabilitation

- Determine level of functioning
- Consider severity
- Profile communication (form, content, use; syntax, semantics, phonology, pragmatics) (receptive/expressive)(verbal/nonverbal)
- Consider the WHO
- Potential for change
- Prerequisites/precursors
  - Cognition
  - Motor
  - Sensory
  - Social/Emotional

## Regardless of developmental vs acquired, client specific considerations apply:

- Basic Considerations (Hegde)
  - Role of culture and environment – what is important in the client's environment (frequency with which a behavior might occur)
  - Usefulness and relevancy (regardless of frequency, how important to client)
  - Potential for generalization and maintenance
  - Building blocks for new behaviors
  - Potential for change

## Conceptual Issues

- You have decided who to treat, ideas about what to treat – then need to consider
- What is the evidence for treating this and by what treatment strategy/techniques
- Where will I start treatment
- Where do I expect treatment to end – goals and objectives
- *What else might change as a result of my treatment*

## Evidence

- Assignment #1 Part 2 (Tasks 3 and 4)
  - Finding levels of evidence for treatment
  - Weighing the evidence relative to other data you have (to be discussed) and client need/preference

Where do I start?  
Where do I end?  
What else might change?

- Baseline
- Treatment goals, objectives
  - Long and short term outcomes

## Baseline

- Base rate level of performance
- Description of performance prior to treatment
  - With or without cues/prompts
    - What's the value in each
    - What's typically collected

## Goals - Objectives

- Goals
  - Long term outcomes
- Objectives
  - Short term outcomes

## Goals

- Long term – ultimate
  - More general
- Johnny will improve his speech production of sibilants.
- Johnny will become more intelligible.
- (We will link long term goals to short term objectives in a moment - generalization )



## Objectives

- Shorter term – how short depends upon your setting:
  - UW – quarterly
  - Schools – Yearly – IEP
  - Hospitals – Acute Care vs. Chronic Care; in patient, out-patient
  - Skilled Nursing Facility – Quarterly, Yearly

## Writing Short Term Objectives

- Short term objective = treatment objective = target objective = behavioral objective = treatment target objective = operationally written objective
- Ingredients
  - Definition of behavior
  - Description of conditions of data collection
  - Criterion for judging whether objective has been met

- Johnny will correctly produce the initial /s/ phoneme in the context of sentences when asked by the clinician to describe unpracticed pictures in the therapy room. This will occur 80% of the time with 40 unpracticed pictures over two days (20 pictures per day)

- Johnny will correctly produce initial /s/ during a 10 minute conversation with the clinician in the therapy room. Unpracticed materials will be used, including pictures and toys. Criterion for success will be 80% correct productions.

- Mrs. Smith will attempt to use her communication notebook by looking for a picture when asked a question by her husband. The questions will be on a topic of the husband's choosing during a 10 minute conversation in the home. Criterion for success will be 80% correct attempts.

- Bob will sign "more" when asked "do you want more X" by the floor aid. Prompts may be used, but Bob can not scream or hit. This will occur in Bob's room, the lunch room and the play/group room. Each setting must have at least 5 opportunities. Criterion for success will be 4 correct in each setting over three consecutive days.

## What else might change? Related to Goal

As you consider short term objective and long term goal, the concept of generalization should come to mind. Link between the two.

- Generalization
  - Stimulus Generalization
  - Response Generalization

Consider these as you are thinking about your target behavior and writing your treatment objective

## Generalization

- **Stimulus Generalization:**

When the relevant behavior occurs even when presented with new materials, new people or new settings. E.g., when a child produces the target phoneme even with a different person (mom) or in a new setting (at home) or with new materials (different toys). Behaviors are trained in one condition and then found to occur again (same trained behaviors) in a different condition. In this case it is the same behavior but it is occurring with (i.e. generalizing to) a new set of **stimuli**.

## Generalization

### ■ **Response Generalization:**

When effects of learning a particular behavior during treatment spread to other, related behaviors of the learner (e.g. treating /s/ generalizes to /z/ OR treating “agent + action” generalizes to “action + object”) Trained behaviors generalizing to untrained behaviors; it is the individual’s **response** (i.e., behavior) that is generalizing. (Hegde a bit different on this)

- Johnny will correctly produce the initial /s/ phoneme in the context of sentences when asked by the clinician to describe unpracticed pictures in the therapy room. This will occur 80% of the time with 40 unpracticed pictures over two days (20 pictures per day)
- What might be the goal – (consider generalization)

- Johnny will correctly produce initial /s/ during a 10 minute conversation with the clinician in the therapy room. Unpracticed materials will be used, including pictures and toys. Criterion for success will be 80% correct productions.
- What might be the goal – (consider generalization)

- Mrs. Smith will attempt to use her communication notebook by looking for a picture when asked a question by her husband. The questions will be on a topic of the husband's choosing during a 10 minute conversation in the home. Criterion for success will be 80% correct attempts.
- What might be the goal – (consider generalization)

- Bob will sign “more” when asked “do you want more X” by the floor aid. Prompts may be used, but Bob can not scream or hit. This will occur in Bob’s room, the lunch room and the play/group room. Each setting must have at least 5 opportunities. Criterion for success will be 4 correct in each setting over three consecutive days.
- What might be the goal – (consider generalization)

## Tools for Data Collection

What do each of the following tell us:

- Dynamic Assessment (elaborated)
  - Finalize target selection and get ideas regarding treatment techniques
- Behavioral Observation
  - Naturalistic
  - Structured - Probe Measures
- Interview
- Existing Data

(Read Hegde chapter 3 – good discussion of standardized vs. nonstandardized procedures and sampling)

## Dynamic Assessment

- Recall – systematically providing prompts/cues to see if performance can be increased; so useful in planning TX
    - Allows you to determine Zone
    - Allows you to see what prompts/cues might be helpful –
- Thus useful in planning treatment – selecting target and selecting treatment techniques

## Behavioral Observation

- Baseline – base rate level of performance of target behavior (naturalistic to structured/contrived)
- Target objective – written operationally allows you to measure base rate level of behavior prior to starting treatment
  - Just implement the objective(We'll talk more about this during our discussion of monitoring progress).



- Baseline – note that it is a broad term. It addresses not only performance of target behavior prior to treatment, but will also address generalization behaviors as well. (To be discussed further when we talk about monitoring progress)

## Interview

- Client preference
- Other consumer preference

Using the tool:

Always start open ended, but for the purposes of treatment planning, the interview must become more focused.

## Existing Data

- What does the research reveal about what behaviors can be changed and through what type of treatment
- Levels of evidence for specific treatment approaches
  - Can you select a treatment with no evidence?

## Selecting a treatment target

- Kyle Example - to illustrate
  - Normative Strategy
  - Behavioral Observation
  - Dynamic Assessment
  - Existing Evidence
  - Target Objective
  - Baseline

# Kyle

- 3 years old
- Diagnosis: Specific Expressive Language Impaired (SELI)
  - Standardized Tests – MacArthur-Bates Communicative Development Inventories, Level III; Preschool Language Scales – 3; Stanford Binet Test of Intelligence; Boyd Developme Scale; Peabody Picture Vocabulary Test
  - Comprehensive language, cognition, motor, social emotional development all within normal range

- Nature of Disorder
  - Behavioral Observation: ~ 50 single words, some early two word utterances (that + X; no + X)
- Dynamic Assessment
  - ZONE
  - Treatment ideas

## Existing Evidence - Normative Strategy

- What do we know about two word utterances
- Emergence
- Treatment

### ■ Treatment Objective:

Kyle will produce at least 10 agent + action two-word utterances during two 20-minute free play sessions. The clinician will be familiar but not the treatment clinician. The materials will be toys that have not been used in treatment. This session will take place in the clinic.

- Baseline

## In-class Activity

- Assignment #2 Vaughn et al article  
Questions Part 1 – discussion in class.