



How Many Years Clinical Practice is required to become an "Expert" Occupational Therapist?

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Introduction:

Practical knowledge is gained from clinical practice with clients and has an important role in the development of expertise through reflection on experience^{1,2}.

Knowledge about a client involves understanding the:

1. Client's motivations, desires and tolerances;
2. Environment within which client performance occurs;
3. Clinician's relationship with the client;
4. Client's capabilities and deficits;
5. Client potential³

Practical knowledge is gained from:

- Movement and sensation⁴
- Reflective practice include "reflection-in-action and "reflection-on-action"²

There is debate, however, about the extent of clinical practice required to become an expert. This study aimed to examine the influence of length of clinical experience on therapists' decision making when they produce judgments for clients with cerebral palsy (CP).

Literature review:

Understanding the clinical reasoning process of experienced occupational therapists can help to develop effective clinical reasoning in students and novices⁵. To achieve this goal, researchers usually conduct studies on students, novices and experienced occupational therapists to determine the differing processes. Studies on occupational therapists' clinical reasoning in the last two decades has resulted in a body of knowledge in clinical reasoning then employed in training occupational therapists^{1,3,6}.

Methods of identifying experienced occupational therapists in absence of "gold standards" :

- Duration of experience⁷⁻¹¹
- Reputation¹²
- Qualification^{9,13}
- Peer acknowledgment¹⁰
- Individual perceptions¹².

How long a therapist has been working in a field is the most frequently used factor in identifying experienced occupational therapists.

How much experience is necessary to become an expert?

The length of experience required to develop expertise still remains unclear. While Unsworth¹⁴ considered 5 years of reflective clinical practice as adequate for determining expertise, Rogers and Holm⁶ and Benner¹⁵ have proposed 10 years of clinical practice.

Limited literature in occupational therapy has reported the influence of experience on clinical reasoning:

- Alnervick and Sviden⁷ found no difference in clinical reasoning of OTs on the basis of years of experience.
- Hagedorn¹⁶ reported similar patterns of reasoning for all therapists with experience ranging from 21 months to 19 years. She suggested redefining experience on the bases of quality and relevance rather than length of time.

Aim:

To examine the influence of length of experience on relative importance attributed to decision making factors (objective weightings).

Participants:

- Eighteen occupational therapists (16 females and 2 males), mean age of 36.7 years (SD = 7.6 years) who had worked with people with CP for a mean of 10.4 years (SD = 6.0 years).
- Bachelor in Occupational Therapy (n = 17) and PhD (n = 1).
- Therapists were divided into two groups on the basis of the level of experience. The first group (n = 6) possessed between 5 - 6 years of experience (Mean = 5.3 years, SD = 0.52 years) and the second group (n = 12) more than 6 years (Mean = 12.9 years, SD = 5.9 years).

Method:

In the **process of clinical reasoning**, occupational therapists first consider **relevant knowledge and information** (factors), and based upon these they **identify goals and treatment plans**, and then apply **therapy choices** (Figure 1)¹⁷. In this research the influence of therapists experience on information (factors) that therapists considered were examined on the basis of the **methodology of Social Judgment Theory (SJT)**.

SJT proposes that features of a problem influence individuals and this guides them to select specific problem solving methods (Figure 2)¹⁸.

Research phases:

1. Literature review to identify factors.
2. Factors were piloted and 12 most important factors were identified: 1) **Previous Treatment**; 2) **Occupational Goals**; 3) **Severity of Spasticity**; 4) **Limitation in Passive Range of Movement**; 5) **Limitation in Active Movement**; 6) **Limitations in Developmental Gross Movement**; 7) **Wrist and Finger Posture**; 8) **Thumb Posture**; 9) **Practice**

Context; 10) Associated Medical Factors; 11) Client & Family Background; and 12) Age.

3. Scales developed for the 12 factors
4. 90 **case vignettes** were generated randomly.
5. Case vignettes were provided to **18 experienced occupational therapists** to identify the important intervention option among a list of seven, (from the least to the most invasive) includes **no-therapy, hands-on techniques, splinting, constraint induced movement therapy (CIMT), casting, referral for BTX-A injection and referral for surgery**. The designated factor weightings were identified by multiple regressions analysis.

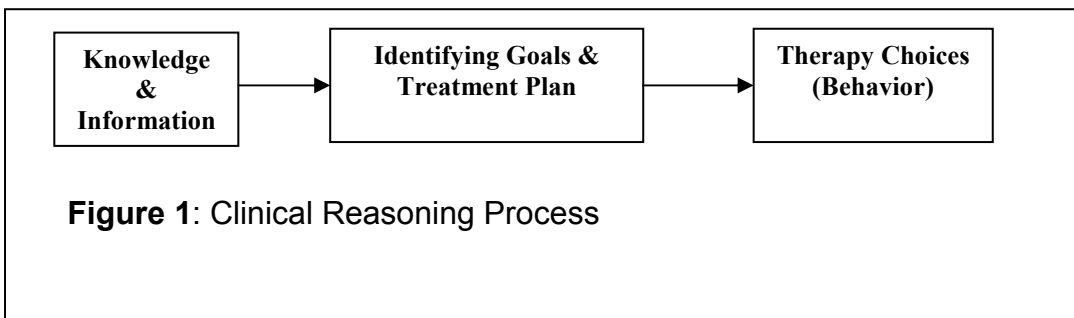


Figure 1: Clinical Reasoning Process

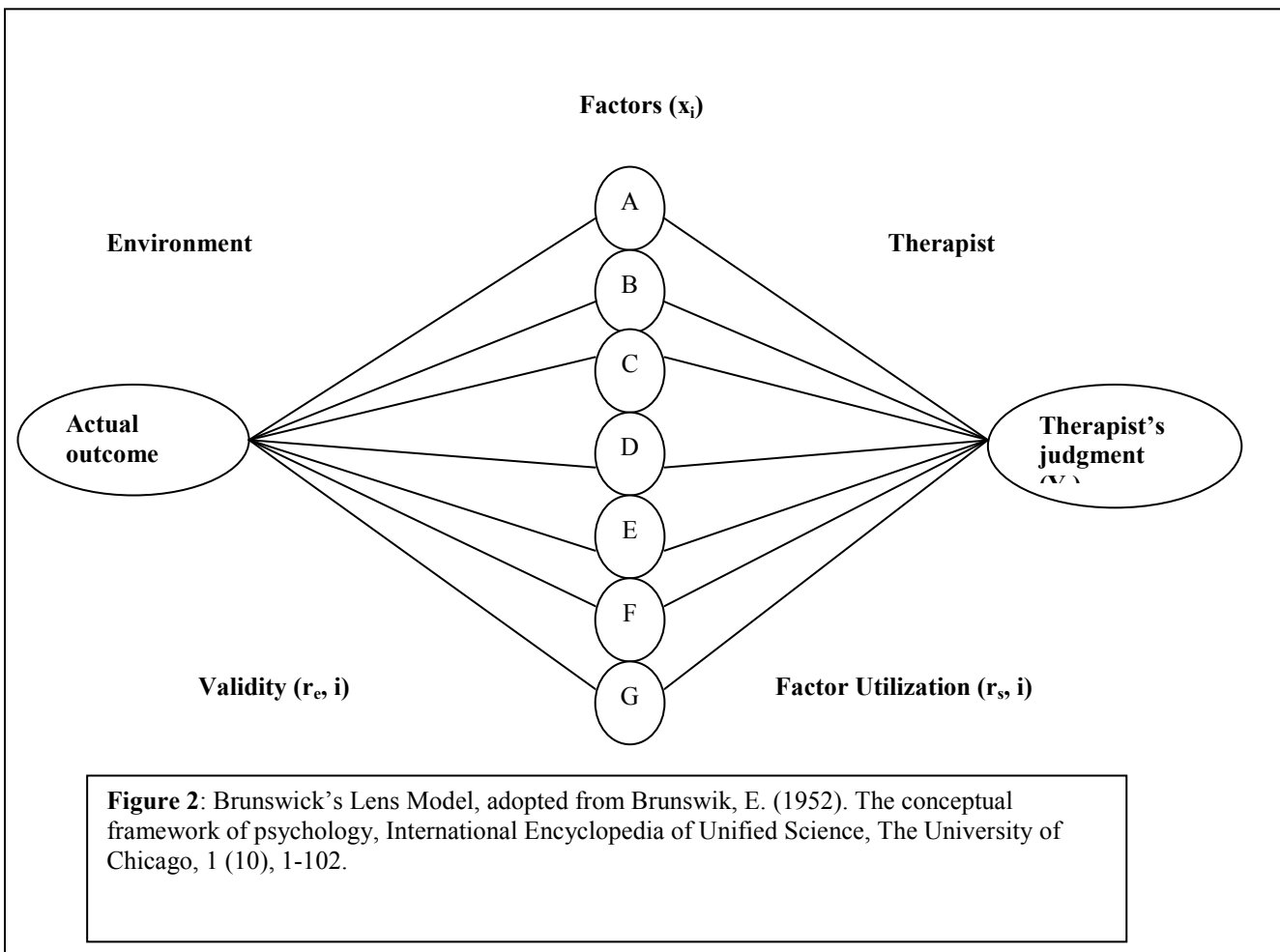


Figure 2: Brunswick's Lens Model, adopted from Brunswick, E. (1952). The conceptual framework of psychology, International Encyclopedia of Unified Science, The University of Chicago, 1 (10), 1-102.

Results:

Therapists were grouped on the basis of length of experience into less experienced (5-6 years) and more (more than 6 years). Mann-Whitney-U test was employed to examine the designated weights of the factors. There was no statistical difference between the two groups in objective weighting of factors (Table 1).

Research Implication:

Length of experience (more than five years) did not change the therapists' clinical reasoning in terms of objective policy (factor weightings). This finding is consistent with Unsworth's¹⁴ proposal, and Alnervick and Sviden⁷, and Hagedorn¹⁶ findings.

Table 1: Objective policies in two groups of low and high experience

Low experience			High experience		
Factor	Mean	SD	Mean	SD	<i>p</i>
Age	12.5	23	6.4	10	0.36
PT ¹	5.5	8.5	6.3	8	0.51
OG ²	2.2	1.8	6.2	14.3	0.92
SS ³	21.3	19.4	32.3	25.3	0.51
LP ⁴	4	5.5	3.1	2.5	0.7
LA ⁵	1.8	2.1	4.9	7.7	0.74
LD ⁶	4	6.1	2.8	2.2	0.7
WFP ⁷	7.7	6	16.5	23.3	0.67
TP ⁸	4.8	5.7	5.5	7.3	0.57
PC ⁹	4.5	3.1	4.3	5.7	0.28
AM ¹⁰	11.7	16.2	7.1	8	0.78
FB ¹¹	20	24.3	4.3	8.2	0.25

¹ Previous Treatment; ² Occupational Goals; ³ Severity of Spasticity; ⁴ Limitation in Passive Range of Movement; ⁵ Limitation in Active Movement; ⁶ Limitations in Developmental Gross Movement; ⁷ Wrist and Finger Posture; ⁸ Thumb Posture; ⁹ Practice Context; ¹⁰ Associated Medical Factors; ¹¹ Client & Family Background

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