Adaptive Functioning
and
Intellectual Ability

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Learning Objectives

1. Describe the relationship between adaptive functioning and ID
2. Identify the components of intelligence testing
3. Identify the factors that affect intelligence
4. Definition of Adaptive Behaviour
5. Identify the domains of Adaptive Behaviour
6. Levels of Developmental Disability – Intellectual & Adaptive
7. Identify the conditions that affect adaptive functioning

Adaptive Behaviour & Intellectual Ability

○ Both are used for identification
○ Both are used for program planning

○ **Impairments in Adaptive Functioning > "Low IQ" concern for an individual**

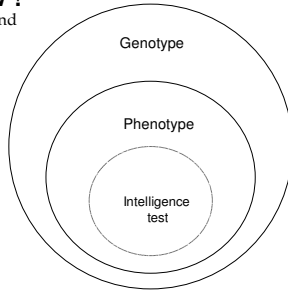Intelligence   "Life"

Adaptive Abilities   Achievements

What is Intelligence?

- **WE DON'T KNOW !**
  (Sternberg, Grigorenko, and Kidd, 2005)

- **Genotype**:

- **Phenotype**:

- **"Test Intelligence"**

Genotype

Phenotype

Intelligence test

What is Measured & Why?

- No universal definition
- Different tests = different results
- What is a "normative" group
- Complex process
- Many factors affect performance
- Relatively stable
- Correlation between IQ and success

MULTIPLE INTELLIGENCES

INTRAPERSONAL — SELF SMART

LINGUISTIC — WORD SMART

INTERPERSONAL — PEOPLE SMART

LOGICAL-MATHEMATICAL — LOGIC SMART

MUSICAL — MUSIC SMART

BODILY-KINESTHETIC — BODY SMART

PICTURE SMART — SPATIAL

NATURE SMART — NATURALIST

THEORY BY HOWARD GARDNER
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What do IQ Tests Do?

○ Designed to measure general ability to solve problems and understand concepts.

○ **Visual-Spatial ability**

○ **Problem-Solving (Thinking) ability**

○ **Language ability**

○ **Memory ability**

○ **Processing**

What Factors Impact Intelligence or IQ Scores?

- Economic status
  - Childhood development
  - Parental education

- Cultural variables
  - Personal interactions
  - Expected reactions

- Societal Expectations
  - Opportunities
  - Community

- Other Factors
  - Personal
  - Testing Situation

Standard IQ Score Ranges

Standard Score	Classification	Relation To Average	Percentile	Frequency
130 and above	Very Superior	Above +2	Above 98th	1 in 50 above 132
120 - 129	Superior	Within + 1.5 to + 2 SD	90th to 98th	1 in 10 above 120 1 in 20 above 125
110 - 119	High Average	Within + 1 to +1.5 SD	75th to 90th	1 in 5
90 - 109	Average	Within +/- 1 SD	25th to 75th	1 in 2
80 - 89	Low Average	within -1 to -1.5 SD	16th to 25th	1 in 10 below 80
71 - 84	Borderline	within -1.5 to -2 SD	3rd to 16th	3 between 69 & 75
70 – 55	Mild Intel. Dis.	Within -2 to -2.5 SD	2nd to .1st	1 in 20 below 75
54 – 35	Moderate I.D.	Within -2.5 to -3 SD	0.1 to < 0.1	1 in a 100 below 64
34 – 20	Severe I.D.	Within -3 to -3.5 SD	Below 0.1	Less than 1 in 200
Below 20	Profound I.D.	- 3.5 and below	Below 0.1	Less than 1 in 1000

What is Adaptive Behaviour?

○ **Adaptive behavior refers to:**
- ○ The quality of everyday performance in coping with environmental demands

- ○ Adaptive behaviour refers to what people do to take care of themselves and to relate to others in daily living

○ **Concept -** first defined in the 1959 AAMR definition of Mental Retardation (Heber, 1959)
- ○ Further defined in 1983 in DSM, as follows:

DSM-IV CRITERIA

"A particular state of functioning that begins in childhood and is characterized by limitations in both intelligence and adaptive skills."

Limitations in two or more areas of adaptive functioning:
- ○ **Communication skills**
- ○ **Home living skills**
- ○ **Community skills**
- ○ **Health and safety**
- ○ **Leisure time**
- ○ **Self care skills**
- ○ **Social skills**
- ○ **Self direction skills**
- ○ **Functional academic and/or work skills**

Measuring Adaptive Functioning

○ **Communication Domain**

- ○ Receptive skills

- ○ Expressive skills

- ○ Written skills

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Measuring Adaptive Functioning

○ **Daily Living Skills Domain**

   ○ Personal

   ○ Domestic

   ○ Community

Measuring Adaptive Functioning

○ **Socialization Domain**

   ○ Interpersonal Skills

   ○ Leisure Skills

   ○ Work Skills

   ○ Coping Skills

Measuring Adaptive Functioning

○ **Motor Skills Domain**
-   Gross Motor & Fine Motor Skills
    -   Ages 0 – 5yrs
        -   Strength and weakness

    -   Ages 6 – 79
        -   Physical concern

Interpreting Performance

○ **Adaptive Levels**

    ○ Descriptive categories
       ○ "non-technical" terms

    ○ Standard Scores & Percentiles
       ○ Standardized
       ○ Statistically based

Borderline Intellectual Functioning V62.89

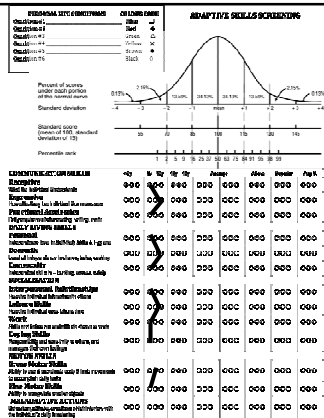| Intelligence Quotient (IQ) Range	Ability at Preschool Age (Birth to 6 Years)	Ability at School Age (6 to 20 Years)	Ability at Adult Age (21 Years and Older)
IQ Range = 71 to 84 May or may not be combined with lower adaptive ability 7% of population	- not significantly different - may have behavioural concerns - increased difficulty in demanding or unfamiliar environments	- Poorer academic performance - behavioral problems	- Adaptive function varies - Cognitive functioning more limited - Academic or occupational achievement limited

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Borderline Intellectual Functioning
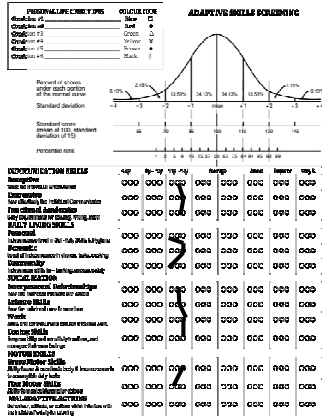
Mild Intellectual Disability
– AXIS II - 317

Intelligence Quotient (IQ) Range	Ability at Preschool Age (Birth to 6 Years)	Ability at School Age (6 to 20 Years)	Ability at Adult Age (21 Years and Older)
I.Q. Range = 52-69 M.A. = 8 – 11 2.7% pop Approx 85% of those with an I.D.	- Late Diagnosis - Average social -Delayed milestones -Communication lower -Coordination impaired	-Grade 6 literacy - Basic social skills, not all -Limited problem solving ability - Difficulty with abstract concepts	- Usually self-support - Guidance may be needed - Learned or Instinctive responses

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Mild Intellectual Disability

Moderate Intellectual Disability
– AXIS II - 318

Intelligence Quotient (IQ) Range	Ability at Preschool Age (Birth to 6 Years)	Ability at School Age (6 to 20 Years)	Ability at Adult Age (21 Years and Older)
IQ Range = 35 to 55 M.A.= 5.5 – 8 yr 0.2% pop About 10% of persons with I.D.	- Basic communication - Poor social awareness - Milestones - Fair motor coordination - Additional self-help supports	- Limited adaptive skills - Structured & repetitious training - Limited academic progress - Limited independence	- Some degree of self-support - Increased need for guidance when under stress - Increased supervision

Moderate Intellectual Disability

Severe Intellectual Disability
– AXIS II – 318.1

Intelligence Quotient (IQ) Range	Ability at Preschool Age (Birth to 6 Years)	Ability at School Age (6 to 20 Years)	Ability at Adult Age (21 Years and Older)
IQ Range = 20-35 or 40 M.A. = 3 – 5.6 yr 0.1% pop About 3% to 4% of persons with I.D.	- Limited communication - Limited Self-help - Poor Motor skills	- Functional communication - "Habit trained" adaptive skills	- Self-care assistance - Complete supervision - Additional needs - Limited self-protection skills - Limited understanding of societal rules

Severe Intellectual Disability

Profound Intellectual Disability
– AXIS II – 318.2

Intelligence Quotient (IQ) Range	Ability at Preschool Age (Birth to 6 Years)	Ability at School Age (6 to 20 Years)	Ability at Adult Age (21 Years and Older)
IQ Range = 19 or below M.A. = < 3yr 0.05% pop 1 – 2% of persons with I.D.	- Extreme cognitive limitation - Poor motor coordination; - Extended care	- Physical limitations - Limited communication - Limited independent behaviour	- Routine trained - Extensive medical care - Cause – Effect

Conditions that affect Adaptive Functioning

- Personal
- Status
- Health
- Social
- Physical

Education

- Reciprocal Effect Education & Socio-economic status
- Parents' educational level
- Educational experiences can influence future choices
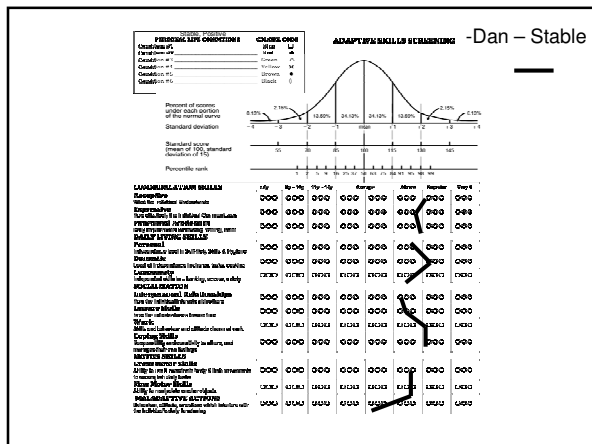- Choice of field affects personal view

Conditions that affect Adaptive Functioning

Case Study – Dan

○ Male – age 30

○ Graduated from college – average grades

○ Works his way up the field
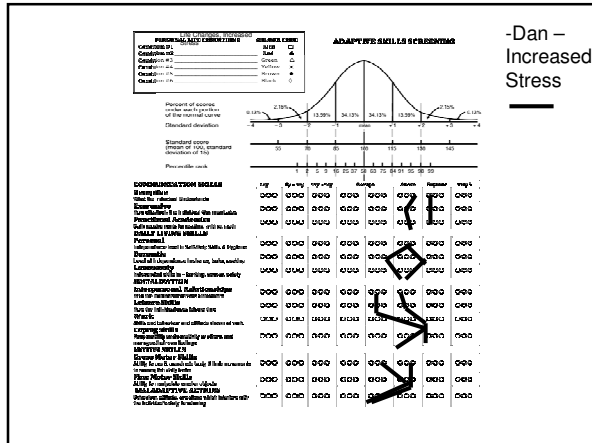
○ Married, has 2 children

Employment

○ Employment affects choices

○ Varied vs restricted job experiences

○ Values & Beliefs affect choices

○ A "job" versus a "vocation"

-Dan – Stable

Socio-Economic Status

○ Availability of external support

○ Availability of options & choices

○ Changes in status can result in stress

-Dan –
Increased
Stress

Mental Health

○ Life Events and Personal Crisis can result in a decline functioning abilities
  ○ Family crisis

  ○ Personal Crisis

  ○ Each event can escalate previous crisis

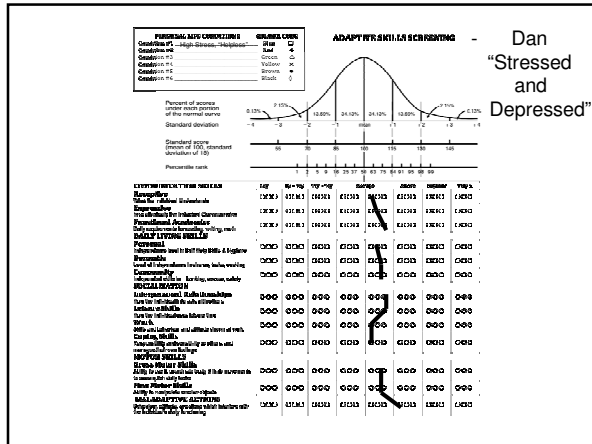## Mental Health & I.D.

○ Approximately 10 to 40% of people with ID

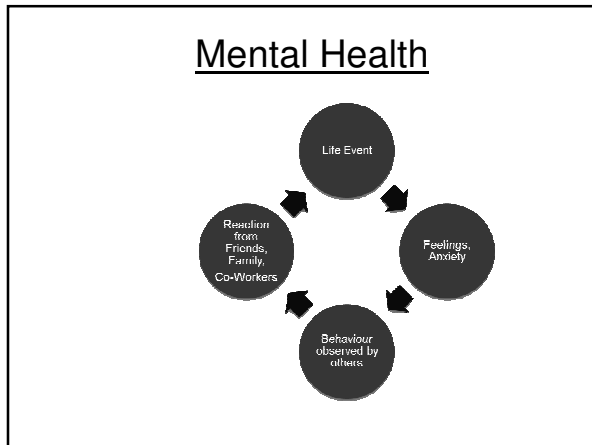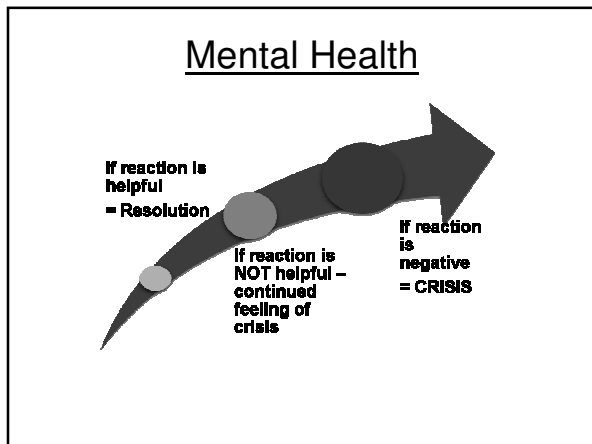○ Anxiety and depression are common

Case Study - Dan

○ Dan completed his management program

○ Changed jobs
  • Within 6 months was dissatisfied
  • Supervisor was a "bully"
  • Increased conflicts
  • Increased physical reactions

○ Dan's level of adaptive functioning declines

Self-Image

○ Is affected by all conditions

○ Can change over life span

○ Is subjective & variable depending on conditions

○ Can be unrealistic or unconnected to observed / actual functioning ability

Dan "Stressed and Depressed"

Mental Health

- Life Event
- Feelings, Anxiety
- Behaviour observed by others
- Reaction from Friends, Family, Co-Workers

Mental Health

If reaction is helpful = Resolution

If reaction is NOT helpful – continued feeling of crisis

If reaction is negative = CRISIS

Cultural / Ethnic / Religious

○ Values & beliefs

○ Interpersonal
  ○ Comfort
  ○ Trust / Sharing
 ○ Acceptance
  ○ Understanding

Family Dynamics

○ Relationships within family affects interactions outside family.

○ Affects
  ○ Self-image
  ○ Trust
  ○ Empathy
  ○ Expression of feelings,
  ○ Physical contact, etc.

Intimate Relationships

○ Changes in intimate relationships = changes in functioning abilities

  ○ Increase or decrease
  ○ Future involvement
  ○ Support
  ○ Socio-sexual

- Dan "Loss & Grieving"
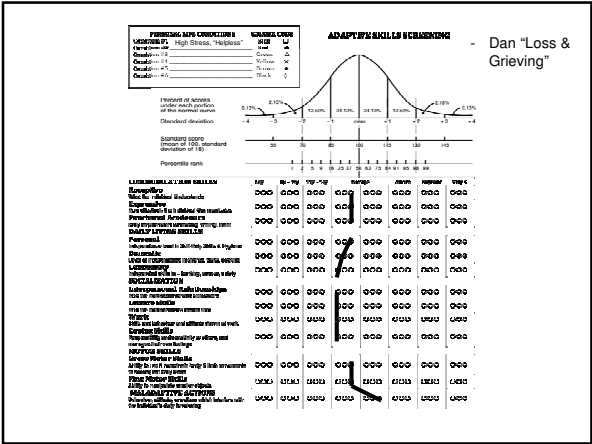
Living Accommodations

○ Age

○ Economic status

○ Interpersonal

○ Community

○ Available supports

Physical Health

Affected by:

○ Age, genetics & gender

○ Physical abilities - health / sensory abilities & sensitivities / illness / disorders / injuries

○ Sleeping & eating patterns

○ Level of physical activity

Adaptive Functioning & Supports

○ Multiple conditions can affect Adaptive Functioning:

  ○ Personal, Social, Health, Physical, Community
  ○ Deficits or no gains ?

○ With appropriate supports over a sustained period, the adaptive functioning of the person with an intellectual disability will generally improve

  ○ More independent, productive, and integrated into their community.

○ Finally, in rare circumstances, the major objective should be to maintain current level of functioning or to slow regression over time.

Thank You!

PEANUTS CLASSICS   Charles Schulz

References

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○ **Adaptive Behavior Assessment System – II**

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○ **The Role of Intelligence Tests in Qualifying Students as Mentally Retarded:** Are Intelligence Tests Biased? Dr. Amelia Jurlando, Fredericksburg City Public Schools, Fredericksburg, Virginia

○ **Howard Gardner – Multiple Intelligences and Education -** www.infed.org/thinkers/gardner.htm