Psychology Module

Table of Contents

Return to LEND Modules webpage

Definition

Psychology is a broad field that includes many different sub-disciplines, but they are all united by an overall theme: the study of mind and behavior.

Brief History

People have been interested in understanding mental processes and behavior, therefore attempting to classify and measure mental processes and behavior, since the beginning of time. Many great philosophers have contributed to our current understanding, including Plato, Aristotle, Socrates, Descartes, and Kant, but it was not until the 1870's that the term "psychologist" was used. Wilhelm Wundt (1832-1920) is believed to be the first person to call himself a psychologist and he was also the first person to establish a psychology lab.

Early psychological tests were developed to divide people into different levels of cognitive functioning (for their own protection and treatment), to prepare for war, and even for entertainment. One of the first intelligence tests was the Binet-Simon test, which was published by Alfred Binet, Victor Henri, and Theodore Simon in 1905 and was used to classify intelligence in children. This was later revised into the Stanford-Binet by Lewis Terman who was at Stanford University at the time. This test is now in its Fifth Edition and is merely one test in a wide array of tools that can be used to measure cognitive abilities.

At one time, it was believed the personality was influenced by different fluids in the body and later that the bumps and grooves in an individual's head revealed aspects of personality (phrenology), but one of the first actual personality tests was the Woodworth Personal Data sheet, which was developed based on case studies and interviews with psychologists. It consisted of a series of self-report questions (e.g., "Are you troubled with dreams about your work?). When the first diagnostic manual was published by the American Psychiatric Association in 1952, interest in classifying people into diagnostic categories increased. With the passing of the Education of Handicapped Children Act in 1975, interest in the rights of children with disabilities increased and a greater need for testing arose as well. This was later changed to the Individuals with Disabilities Education Act.

While psychodynamic clinicians have traditionally emphasized the use of projective measures (such as the Rorschach, 1921, and Children's Apperception Test, 1945), and empiricists have emphasized the importance of using standardized measures (e.g., Achenbach Child Behavior Checklist, 1991), most psychologists today value the use of integrating multiple sources of data in order to see the big picture. These may include parent and teacher questionnaires (both standardized and open-ended), intelligence tests, tests of memory and academic performance, interviews with the child or client when appropriate, and direct observation. In recent years, the importance of cultural factors have received increased attention and psychologists now realize that exploring and understanding cultural differences is an important part of conducting a thorough evaluation. Furthermore, while many traditional psychologists emphasized learning about a client's problems in order to classify them, psychologists now know that it is just as important to learn about a client's strengths and coping strategies in order to empower them.

Description

Scope of Practice

There are many different types of psychologists. In fact, the American Psychological Association includes 56 different divisions (http://www.apa.org/about/division/index.aspx). Psychologists who provide assessments as part of the LEND program can be broken down into two main types: school psychologists and clinical psychologists. People who research, study, and teach psychology, but do not engage in the practice of psychology are not technically considered psychologists although they make invaluable contributions to the field.

Settings

Licensed psychologists work in many different settings including:

- Hospitals
- Private practice
- Community clinics
- Universities
- Prisons and juvenile justice facilities
- Schools

Master's level school psychologists work primarily in schools.

Knowledge

- In Washington state, psychologists must obtain a doctoral degree (PhD or PsyD) in Clinical Psychology, Counseling Psychology, or School Psychology. This degree includes courses, practicum placements, an internship, and a major research paper (usually a dissertation). Most psychologists study for about 6 years after completing a 4-year undergraduate degree. Many psychologists also choose to complete a postdoctoral fellowship which involves further training in psychological work under the supervision of someone more experienced. Some of the psychology fellows who are part of LEND are completing postdoctoral fellowships. Psychologists often choose to further specialize in a specific population (e.g., children) or in certain types of disorders (e.g., autism spectrum disorders), but in Washington state, they are all generally referred to as licensed psychologists.
- Following the receipt of a doctoral degree, psychologists are eligible to apply for licensure which in Washington State involves:
    - a passing score on the Examination for the Professional Practice of Psychology (EPPP).
    - a passing score on the psychology jurisprudence exam.
- In Washington state, Master's level school psychologists must complete a Master's degree in school psychology, which involves a combination of courses, research, and practicum or internship work, and they must pass their school's comprehensive exam in school psychology or the Praxis II specialty area test. They are trained to be familiar with specific issues that arise when practicing psychology in the school setting, such as the

special education process. Some school psychologists also choose to complete a doctoral degree.
- Psychometrists are people who have education and training in psychology (at least a Bachelor's degree) and administer and score psychological tests while being supervised by psychologists.

Clinical Practice

At the CHDD, the goals of psychologists include:
- Diagnosing neurodevelopmental disorders (such as autism spectrum disorders, intellectual disabilities, and ADHD)
- Sometimes diagnosing other disorders or recommending further evaluation of other psychological symptoms (e.g., trauma-related disorders, anxiety, depressive disorders)
- Identifying relevant strengths of the child/adolescent and family
- Making treatment recommendations
- Providing guidance to parents and professionals on educational placement and strategies to use in the classroom
- Explaining the results of evaluations to families and clients in an understandable manner
- Instilling hope
- Valuing and respecting differences associated with culture, gender, class, region, ethnicity, and language

Roles

- Perform testing for children suspected of having a neurodevelopmental disability
- Provide follow-up assessments for children who have previously been assessed and who want a second opinion or further evaluation to rule-in or rule-out disorders
- Consult with other professionals at the CHDD and in the community
- Work as part of an interdisciplinary team including but not limited to occupational therapy, physical therapy, social work, audiology, developmental behavioral pediatrics, speech language pathology, and nutrition.

Assessment and Diagnosis

Psychologists and psychology fellows at CHDD begin by reviewing the contents of the child's file, which includes parent and teacher questionnaires, medical records, education records, and information from other providers. They also talk to other team members to get input on a child's functioning and areas that are most in need of assessment.

Psychologist rely on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), published by the American Psychiatric Association, as a guide when diagnosing. The DSM-5 provides a framework to classify, conceptualize, and diagnose psychological or psychiatric disorders, including neurodevelopmental disorders.

Assessment is done in a variety of ways including:
- standardized testing
- standardized questionnaires

- parent/caregiver/child interview
- direct observation
- observation of interactions with parents/caregivers and professionals

Assessment varies somewhat for each family. Most psychology testing sessions include measures of:

- Cognitive functioning, which can include verbal and nonverbal problem solving, working memory and processing speed.
    - Examples include:
        - Bayley Scales of Infant and Toddler Development, Third Edition (Bayley-III)
            - https://www.pearsonclinical.com/childhood/products/100000123/bayley-scales-of-infant-and-toddler-development-third-edition-bayley-iii.html
        - Wechsler Tests:
            - Wechsler Preschool and Primary Scale of Intelligence, Fourth Edition (WPPSI-IV)
                - http://www.pearsonclinical.com/psychology/products/100000102/wechsler-preschool-and-primary-scale-of-intelligence--fourth-edition-wppsi-iv.html
            - Wechsler Intelligence Scale for Children, Fifth Edition (WISC-V)
                - http://www.pearsonclinical.com/psychology/products/100000771/wechsler-intelligence-scale-for-childrensupsupfifth-edition--wisc-v.html
            - Wechsler Adult Intelligence Scale, Fourth Edition (WAIS-IV)
                - http://www.pearsonclinical.com/psychology/products/100000392/wechsler-adult-intelligence-scalefourth-edition-wais-iv.html
        - Differential Abilities Scale, Second Edition (DAS-II)
            - http://www.pearsonclinical.com/education/products/100000468/differential-ability-scales-ii-das-ii.html
- Adaptive functioning, which includes practical daily living skills (e.g., personal hygiene, caring for belongings, basic communication skills, social skills, and practical reading and math skills)
    - Examples include:
        - Adaptive Behavior Assessment System, Third Edition (ABAS-III)
            - http://www.mhs.com/product.aspx?gr=edu&prod=abas2&id=overview
        - Vineland Scales of Adaptive Behavior, Second Edition (Vineland-II)
            - http://www.pearsonclinical.com/psychology/products/100000668/vineland-adaptive-behavior-scales-second-edition-vineland-ii-vineland-ii.html
- Social communication skills (e.g., nonverbal communication, play skills, social-emotional reciprocity)
    - Examples include:
        - Autism Diagnostic Observation Schedule, Second Edition (ADOS-2)
            - http://www.wpspublish.com/store/p/2648/autism-diagnostic-observation-schedule-second-edition-ados-2
        - Social Responsiveness Scale, Second Edition (SRS-2)
            - http://www.wpspublish.com/store/p/2994/social-responsiveness-scale-second-edition-srs-2
- Restricted/Repetitive behaviors (e.g., repetitive speech, rigid play, difficulty transitioning from one task to the next, focusing on one particular toy or topic of conversation for an unusual amount of time)
    - Examples include:

        - Autism Diagnostic Observation Schedule, Second Edition (ADOS-2)
        - Social Responsiveness Scale, Second Edition (SRS-2)
- Overall assessment of child/adolescent behavior
    - Examples include:
        - Child Behavior Checklist (CBCL)
            - http://aseba.org/
        - Teacher Report Form (TRF)
            - http://aseba.org/
- In some cases, assessments of executive functioning and attention skills are also included
    - Examples include:
        - The NEPSY, Second Edition
            - http://www.pearsonclinical.com/psychology/products/100000584/nepsy-second-edition-nepsy-ii.html
        - Behavior Rating Inventory of Executive Functioning (BRIEF)
            - http://www4.parinc.com/Products/Product.aspx?ProductID=BRIEF
        - Conners, Third Edition (Conners-3)
            - https://www.pearsonclinical.com/psychology/products/100000523/conners-3rd-edition-conners-3.html
- In some cases, assessments of memory are also included
    - Examples include:
        - The Wide Range Assessment of Memory and Learning, Second Edition (WRAML 2)
            - http://www.proedinc.com/customer/ProductView.aspx?ID=3168

Intervention

The primary method of intervention by psychologists at the CHDD is to explain a client's diagnosis and its meaning and then help the family determine where to go next to access services for the home, at school, or in the community. Psychologists and fellows provide individualized treatment recommendations following an assessment and meeting with the interdisciplinary team and caregivers.

Recommendations may include:

- Educational strategies for improving school performance and ability to follow directions (e.g., increased emphasis on visual teaching strategies)
- Recommending changes to the Individualized Education Plan (IEP; e.g., changing a qualifying category from developmental delay to autism, recommending extended school year or extended school day, recommending a functional behavioral assessment (FBA) and behavior intervention plan, recommending against certain strategies, such as loss of recess)
- Therapy in the community (often accompanied by specific clinics or therapists known to be helpful for a particular issue)
- Evidence-based in-home therapy (e.g., applied behavior analysis (ABA) for children with autism spectrum disorder)
- Books and websites for the parents to explore
- Community recreational activities (e.g., sports, art, or library activities)
- Resources to help parents cope with the diagnosis or their own stressors (e.g., support group, co-parenting sessions)

Challenges

The diagnosis of neurodevelopmental disorders is a complicated practice that often must be completed in one 3-hour session. Due to the limited interaction with the parents outside of the child's presence, the psychologist relies on much collaboration with the families and members of the interdisciplinary team in order to make the most informed clinical decisions. Autism spectrum disorder, in particular, is difficult to diagnose because of the many factors that must be considered.

Additionally, psychologists must take care to ensure that they respect and value cultural differences and interpret information appropriately within the given cultural context as well as providing information in a culturally appropriate manner, while maintaining an awareness of their own biases. Many psychologists and fellows only speak English and may work with a family who primarily speak another language. In these cases, interpreters must be a part of the evaluation and results must be interpreted with caution and respect.

Even the concept of intelligence is not without controversy. Research has shown that intelligence scores can vary considerably over time, especially in young children, that caregivers' expectations of children influence their performance, and that certain children may perform very well on one particular aspect of intelligence while performing poorly in another area. When providing feedback, psychologists must learn to provide the information that will be helpful in a manner that communicates hope and possibility while also acknowledging some of the weaknesses in the tools that are used.

By integrating multiple sources and types of information during each assessment, psychologists and fellows can be more confident in the diagnoses and recommendations that they provide. At the same time, they must have a high tolerance for ambiguity and sometimes they must be willing to admit uncertainty to the family and the rest of the team.

Relationships with Other Disciplines

At the CHDD, psychologists and fellows have the unique opportunity to collaborate with a broad range of on-site professionals. They work closely with audiology, speech language pathology, occupational therapy, physical therapy, nutrition, and developmental behavioral pediatrics on a regular basis when diagnosing and providing treatment recommendations for children.

Examples

- Consulting with a pediatrician to explore how a child's cognitive difficulties might be linked to physical health problems.
- Talking to the nutritionist to explore the extent of "picky eating" displayed by a certain child and determining whether the degree of their avoidance of certain tastes and textures seems consistent with a diagnosis of autism spectrum disorder.
- Cooperating with the social work team to get an idea of the family strengths and weaknesses and exploring resources together that might help the family to overcome stressors that are affecting everyone (such as a history of interpersonal/domestic violence or financial hardship)

- Discussing a child's nonverbal communication patterns with the speech language pathology team to determine whether their weaknesses in eye contact and gestures were consistent across sessions.
- Working with the occupational or physical therapist to determine how weaknesses in fine motor skills might contribute to lower scores on certain subtests of intelligence tests and how this might also contribute to problems with adaptive functioning.

Case Studies

Cases 1 and 2: Joshua and Josiah

Joshua and Josiah are 3-year-old twins who started talking late, not using single words until 30-months and not using phrases until age 3. They are both hyperlexic, able to read full sentences already. They spend long periods of time bouncing back and forth on the couch in rhythmic, repetitive fashion. They enjoy watching the same television shows over and over again and repetitively sing songs from the shows they watch (especially alphabet songs). They both enjoy organizing and arranging their toys in specific ways and Josiah likes to balance his toys on the window sill in a very precise fashion and gets upset if anyone tries to move his toys. Although Joshua and Josiah repetitively sing songs and sentences to each other that they have heard on their television shows, they do not readily engage in conversation with others. They have attended numerous community classes with other children their age, but they seem disinterested in interacting with other children. Although their mother describes them as loving toward each other and their parents (e.g., giving hugs and kisses), they have difficulty engaging in any type of back-and-forth play. They also use very little eye contact. They display picky eating and refuse to wear certain types of clothing. They become very emotionally distraught if there is a change in routine and can be difficult to soothe.

Assessment:

Based on this profile the following concerns were noted and assessment recommendations made:

- Abnormal social communication skills: assess with the ADOS-2 and the SRS-2
- Need to estimate cognitive functioning: assess with the DAS-II
- Adaptive functioning deficits: assess with the ABAS-3
- Emotional difficulties: assess with parent interview and the CBCL

Diagnosis:

Joshua and Josiah were sweet, charming boys who displayed their love of reading. Their mother was highly attentive and supportive. They were found to have Average to High Average cognitive functioning (based on the DAS-II), Low Average adaptive skills with strengths in functional pre-academics, and a pattern of symptoms consistent with autism spectrum disorder, based on results of the ADOS-2, SRS-2, and parent interview. They do not display any significant symptoms of anxiety, depression, or disruptive behavior, based on the CBCL. After discussing the results with the team and gathering more information about autism symptoms

that were apparent across all sessions, diagnoses of autism spectrum disorder were communicated, along with a summary of their many strengths and recommendations for improvement.

Case 3: Dana

Dana is an 8-year-old girl who was struggling emotionally after moving to a new school. Her mother reported that she has been having problems with social interaction for several years – complaining of other girls teasing her and making fun of her. As a toddler and preschooler, she displayed "extreme" tantrums a few times per week that lasted for up to an hour at a time. Her mother reported that although she no longer has extreme tantrums, she continues to have problems with social interaction and seems to become overly focused on other children making fun of her and this seems to get in the way of her completing her schoolwork. She also seems to have difficulty reading social cues, often misinterpreting figurate language. Her teacher reported that she seems overly "sensitive" to other children making fun of her and has difficulty "letting go" of minor comments made by other children. Aside from this, her teacher reported that she is performing well academically and is not particularly disruptive. Additionally, this is her third school in three years due to having to move for her father's work. She attended a religious school last year and some of the students and staff reportedly made negative remarks to her because her parents were not of the same religion. Her mother reported that she has been diagnosed with ADHD in kindergarten and saw a therapist for a few years, which was somewhat helpful. Her mother also reported that she took her to a private counselor in another state who diagnosed her with "Asperger's" last year. The counselor provided a brief one-page report describing her as having Asperger's based on a brief interview and school observation. Her mother questions whether she has ADHD or Asperger's.

Assessment:

Based on this profile the following concerns were noted and assessment recommendations made:

- Difficulty reading social cues, social interaction problems: assess with the ADOS-2 and the SRS-2
- Need to estimate cognitive functioning: assess with WISC-V
- Possible attention problems: assess with Conners questionnaires and the NEPSY-2
- Emotional difficulties: assess with parent interview, the CBCL, and the TRF

Diagnosis:

Dana presented as enthusiastic and curious. She talked enthusiastically about her interest in crafts and asked the examiner a little bit about her own interests. Results of the ADOS-2 showed that she had adequate nonverbal communication skills (including eye contact and gestures) and was able to engage in back-and-forth conversation. Although she was verbose, she also asked the examiner about some of her own interests and she did not talk excessively about any particular topic. She also did not display any repetitive behaviors. Results of parent and teacher questionnaires suggested significant anxiety, but only minor attention problems. Results of the NEPSY-2 showed adequate attention and inhibition skills in a one-on-one setting.

Further exploration of her social interaction problems revealed that they primarily consisted of having difficulty forgetting minor insults, but that she actually had a few reciprocal friendships and was invited to play with her peers. Results of the WISC-V revealed Extremely High cognitive functioning, in the gifted range. After conferring with the rest of the team, who also found no significant signs of autism spectrum disorder or ADHD and provided additional information about psychosocial stressors (e.g., moving and cultural differences). Her family was informed that she likely did not have autism spectrum disorder or ADHD and they were provided with information about why these diagnoses did not fit. They were also informed that she would benefit from school services targeting advanced or gifted children and that her symptoms of anxiety should be assessed on an on-going basis.

Further Reading

American Psychological Association: http://www.apa.org/

American Psychological Association, Society of Clinical Child and Adolescent Psychology, Division 53: https://www.clinicalchildpsychology.org/

Association for Psychological Science: http://www.psychologicalscience.org/

National Institute of Mental Health: https://www.nimh.nih.gov/index.shtml

Psych Central: http://psychcentral.com/

Individuals with Disabilities Education Act: http://idea.ed.gov/

Washington State Department of Health: http://www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/Psychologist

Washington State Psychological Association: http://www.wapsych.org/

The curriculum for the psychology module was developed by:

Sara Woods, Ph.D.
Licensed Psychologist
Former UW LEND Fellow and Psychology Post-Doctoral Fellow
University of Washington