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Delineating Psychology as an Academic and Applied Discipline

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Abstract. It is suggested that while psychology is well-known as an academic discipline and an applied science, rehabilitation professionals, economists, and attorneys lack specific knowledge about the different types of professionals in psychology. Moreover, it is suggested that these same professionals are not adequately able to differentiate professional psychologists from other mental health professions. As such, the purpose of this paper is to offer a historical account of psychology as both an academic discipline and applied science, distinguish between the diverse types of psychologists and psychological scientists, and, lastly, segregate or describe the various types of mental health professions. It is a goal that rehabilitation professionals will be able to utilize this information to both direct services for clients, but also select applicable experts for court and testimony purposes.

Psychology represents the scientific study of behavior and cognition. As a science, psychology employs the scientific method, specifically observation, collection, scrutiny of data, publication, and then replication, to understand both behavior and cognition. Behavior represents observable actions completed by an organism, whether animal or human. Cognition relates to how humans and other organisms sense and perceive stimuli, as well as think and organize information, in order to make decisions. From this framework, psychology represents not only an area of scientific scrutiny, but also an applied science. In 2012, more than 160,000 individuals were employed as psychologists (American Job Center, n.d.). Within the realm of an applied science, psychology covers a diversity of areas, including social, developmental, environmental, and biological, among others. As an applied science, psychology extends beyond the research and study of behavior and cognition into a diverse realm of application of psychological principles. Some related areas that will be discussed here specifically include clinical, medical, and neurological applications.

In court and rehabilitation settings, professionals in both applied psychology and psychological science may serve vital roles in the treatment, support, and understanding of behavioral and cognitive challenges experienced by persons with disabilities. These psychological professionals are often time called upon to serve as consultants and/or expert witnesses in cases where an understanding of the disabled individual's behavior or thought processes is necessary. However, with the many specialties in the psychological profession, there has been much confusion over the specific areas of psychology that are generally called upon to provide these types of services. With that in mind, this paper is intended to explain specific psychological professions related to these areas so that professionals who are dealing with disabilities cases can better serve the client, service agency, and/or judicial system.

In the present paper, the evolution of psychology as an academic discipline and an applied field will be briefly discussed. This will be followed by an examination of the specific psychologists who are often called upon for consultation services and/or witness testimony. Lastly, a narrative of that will differentiate psychology from other disciplines, such as counseling and pragmatic therapies will also be provided.

The Evolution of Psychology

Psychology emerged as an academic discipline in the late 19th Century as an extension or sub discipline of physiology, biology, physics, and philosophy. While diverse, the commonality of these disciplines represents the essential function of psychology as both a scientific discipline and applied science—the nature of how human beings learn and behave. Some of the traditional philosophical questions from the past, such as the nature versus nurture controversy, the mind-body problem, and whether development is gradual or continuous, still prevail today. However, modern times has challenged the psychological sciences with more contemporary dilemmas to deal with as well, such as the psychosocial determination of behavior, the use of

psychotherapy vs. pharmacotherapy in the treatment of mental disorders, and the understanding of genetics in determining mental disorders.

Psychology was first seen as a discipline in the late 1850's through the laboratories developed by Wilhelm Wundt at the University of Leipzig, in Leipzig, Germany where the relationship between a stimulus and response was first defined systematically. Wundt was primarily interested in one's own perception of sensory experiences, and he called his model of investigation *introspection*. This introspective model was brought to America and soon abandoned for a more objective model proposed by William James called *functionalism*. Functionalism, which focused more specifically on how one functions within the environment, sparked a new movement in the direct manipulation and observation of behavioral responses. From the early 1900's to approximately the 1950's, psychology was primarily concerned with the quantitative recording of observable behaviors, representative of what became known as *behaviorism*. Beginning from the mid 1950's to the early 1960's the *cognitive revolution* began, demanding that psychological science should not only examine observable behavior, but also thought processes or cognition. With this movement, research in the area of cognition, such as the pivotal psycholinguistic research of Noam Chomsky, became forefront. During this time, social and developmental research also emerged with the *social learning theory* proposed by Albert Bandura and pivotal studies of aggression and persuasion by Phil Zimbardo.

At present, the discipline is changing significantly by the advent of new technology which has allowed for new creative ways to study complex questions about behavior and fast efficient ways to disseminate research findings. In particular, computer technology and the advent of the internet have expanded our ability to conduct research and share finds in a remarkably short time. For example, the availability of neuroimaging techniques now allows for the direct observation of brain activity during specific tasks, including cognitive tasks. This has opened a whole new world of investigation known as cognitive neuroscience. This specific field and many others have emerged in recent years to address specific research focuses, as well as meet specific psychological needs.

The diversity of psychology as a scientific discipline is shown in its organizational makeup. Until the 1980's the American Psychological Association (APA) was the primary professional organization of psychologists with both purely scientific and applied interests. Considering that many members of the APA were not clinicians, but rather researchers, an academic and organizational divide began, eventually leading into development of the Association for Psychological Science, an organization that remains today, focused primarily on psychology as a basic science, as opposed to strictly an applied science. The development of two distinct organizations truly reflects the division of psychology. Referencing back to the APA, the diversity of psychology is further delineated by observation of its divisions, which at present there are 54 divisions, each representing a distinct interest of its members.

While psychological scientists have a broad range of interests and theoretical perspectives, they are cohesively tied together as a discipline by the common emphasis that psychology is a science first, adhering to the scientific method to understand, describe, and predict behavior. With that, all psychologists are educated in the science of psychological research prior to any training that they may go through to execute their professional services. The diversity of the field actually comes with the specific behavioral domains that psychologists choose to continue their studies and develop their professional skills within. That being given, psychologists cross multiple domains and become highly specialized in certain areas. A good example of this lies with the new emerging area of geriatric clinical psychology where psychologists deal specifically with developmentally related problems in the aged population.

Another important historical advancement in psychology that distinguishes it from other professions is that of psychological assessment. The measurement of intelligence and aptitude has been the focus since the late 1890's with the early need to identify school readiness in children and the need to identify workman's skills for the military and an industrialized society. Intelligence and aptitude testing was continued and developed through the early efforts of Alfred Binet, James McKeen Cattell, Howard Gardner, Robert Sternberg and David Wechsler. Today, psychological assessment has found its importance in not only schools, industries, and the military, but also in clinics, hospitals, and agencies that serve clients challenged with mental or behavioral problems. Considering the value of mental measurements in evaluation of an individual's potential to perform, psychological assessment remains today as an important service provided exclusively by those in the psychological field.

Another important service that is provided by applied psychologists today is psychotherapy. Psychotherapy in the form of *psychoanalysis* was first used by Sigmund Freud in the early 1900's as a means of getting at conscious and unconscious thoughts that made up the the personality of the individual and that he believed were responsible for driving behavior. Over the years, psychotherapy has evolved as an acceptable way to treat abnormal behavior. However, approaches used in psychotherapy have varied significantly from the psychoanalytical approach first posed by Freud. Much of that change in psychotherapy stems from ad-

vances in our understanding of cognitive and social psychology. For example, Jean Piaget and Lev Vygotsky sparked innovation towards the study of cognition and socialization, and how cognition affects the behavior of the individual within a social unit. Today, there are many forms of psychotherapy that are used today to help clients deal with psychological problems. Some of the current therapeutic approaches today focus specifically on modifying behavior, where others focus on modifying cognition and social dynamics. There are also some very contemporary therapies and theoretical approaches that integrate and advance these ideas. Some examples of contemporary approaches include Cognitive Behavioral Therapy (CBT), Relational Framework Theory (RFT), and Acceptance and Commitment Therapy (ACT).

In summary, fundamental ideas about behavior and cognition have flourished over the last century to what has evolved as a broad area of psychology that encompasses scientific explanations of behavior and though processes, as well as the application of scientific principles to render services in the form of treatment and/or behavioral analysis. With the development of psychology as a scientific discipline and an applied area, many specific fields of study and application have evolved.

Psychology Education at Undergraduate and Graduate Level

It may be commonplace for an attorney, allied health professional, or someone in the rehabilitation field to professionally encounter or work with someone with an undergraduate or graduate degree that is indeed is not a psychologist per se. As such, it is necessary to outline not only the framework for an undergraduate or graduate degree in psychology, but also the professional implications of a specified degree in psychology. More specifically, it is important to discern psychology as an academic pursuit in comparison to appointment of a student of psychology in a specific career placement.

Table 1 represent a listing of Psychologists and psychology-related occupations that may be applicable employment opportunities for psychology graduates at either an undergraduate or graduate level. Many of the positions may be attained by someone attaining an undergraduate degree (i.e., Psychiatric Technician and Social Science Research Assistants), or master's-level degree (i.e., Mental Health Counselors and Marriage and Family Therapists). Alternatively, other occupations may only be obtained from doctoral-level work (i.e., Counseling Psychologists), or by completion of medical school (i.e, Psychiatrists). In order to appreciate the diversity of prospective occupations, it is necessary to understand relative goals of psychology education at either an undergraduate or graduate level.

At an undergraduate level, a student will not be eligible upon graduation to work or by nomenclature call themselves a "psychologist." In comparison to other fields that grant taxonomy for graduates at both undergraduate and graduate levels, such as nursing and engineering, psychology does not grant the undergraduate student the jargon to call themselves a professional psychologist. This term is granted to doctoral level graduates with specialized experiences and licensure, not to the undergraduate student. The undergraduate curriculum typically requires general coursework in English, biology or biological sciences, technical writing, foreign language, arts education, humanities, and an additional minor. It is a goal that completion of an undergraduate curriculum will give students verbal and written communication, critical thinking skills, and advanced knowledge in statistics and research methodology. Considering this range of skills, job placement upon graduation is parallel, considering the positions of Social Scientist Research Assistants, coupled with Social and Human Service As-

Table 1
Listing of Psychologists and Psychology-Related Occupations

Clinical Psychologist	School Psychologists	Counseling Psychologists	Social and Human Service Assistants
Rehabilitation Counselors	Substance Abuse and Behavioral Disorders Counselors	Marriage and Family Therapists	Mental Health Counselors
Mental Health Counselors	Mental Health and Substance Abuse Social Workers	Industrial-Organizatio nal Psychologists	Psychologists, All Other
Clinical, Counseling, and School Counselors	Psychology Teachers, Postsecondary	Psychiatrists	Social Science Research Assistants
Human Factors Engineers and Ergonomists	Social Scientists and Related Workers, All Others	Educational, Guidance, School, and Vocational Counselors	Psychiatric Technicians

sistants. Completion of a formal research paper is typically not required at an undergraduate level, albeit students may complete an honor's thesis or some type of comparable project.

Comparable education at a master's level, obviously becomes centralized to the field of psychology itself. However, even at a master's level, with few exceptions in selected states, can a student that attained a master's degree demarcate themselves as a psychologist. A generalized master's level curriculum typically focuses on both applied courses (developmental, ethics, social, and biological psychology, among others) in addition to a research foundation (research methodology and statistics). Some programs may be very generalized, such as applied psychology or experimental psychology, while others may be very specialized such as cognitive neuropsychology, child developmental psychology, or applied social psychology. In an applied program typically some type of practicum or hands-on experience is required in an identified mental or community health setting, giving the student a supervised opportunity to work with individuals in a direct hand-on scenario, such as a psychologist's office, a small mental health clinic, or a counseling center in a university. Completion of a formalized research project may or may not be required at a master's level. If required, a student must propose and complete a thesis project. Typically, a psychology master's level program will be very different from a similar counseling graduate program. While a master's level counseling program will enable its graduates to obtain licensure or certification as a counselor, a master's level psychology program will not enable its graduates to obtain licensure or certification as a psychologist. However, as a caveat it is important to note some states will allow master's-level graduates complete directed supervision, allowing these individuals to practice within psychology without completion of doctoral-level work. Persons would be advised to consult state-based licensure requirements to determine eligibility for licensure for persons completing a master's degree.

Doctoral programs in psychology are very dichotomous. That is, the programs are focused toward educating, training, and developing either a practicing or research-based graduate. Students with solely research interests may pursue multiple options, including social, developmental, and cognitive psychology. Alternatively, students with the goal of obtaining licensure, may pursue doctoral degrees in clinical, counseling, or school psychology. Moreover, it must be emphasized that graduates in clinical, counseling, or school psychology concurrently will have research interests and pursuits in their respective fields. Whether applied or purely experimental in nature, psychology graduates at a doctoral level must complete a dissertation, displaying the ability to independently identify a hypothesis or multiple hypothe-

Table 2
Listing of Tasks Completed by Clinical Psychologists

- Interact with clients to assist them in gaining insight, defining goals, and planning action to achieve effective personal, social, educational, and vocational development and adjustment.
- Identify psychological, emotional, or behavioral issues and diagnose disorders, using information obtained from interviews, tests, records, and reference materials.
- Use a variety of treatment methods, such as psychotherapy, hypnosis, behavior modification, stress reduction therapy, psychodrama, and play therapy.
- Counsel individuals and groups regarding problems, such as stress, substance abuse, and family situations, to modify behavior or to improve personal, social, and vocational adjustment.
- Discuss the treatment of problems with clients.
- Write reports on clients and maintain required paperwork.
- Consult with or provide consultation to other doctors, therapists, or clinicians regarding patient care.
- Obtain and study medical, psychological, social, and family histories by interviewing individuals, couples, or families and by reviewing records.
- Evaluate the effectiveness of counseling or treatments and the accuracy and completeness of diagnoses, modifying plans and diagnoses as necessary.
- Select, administer, score, and interpret psychological tests to obtain information on individuals' intelligence, achievements, interests, and personalities.

Source: American Job Center. (n.d.). *Summary Report for: 19-3031.02 – Clinical Psychologists*. Retrieved from http://www.onetonline.org/link/summary/19-3031.02

Table 3
Listing of Tasks Completed by Counseling Psychologists

- Collect information about individuals or clients, using interviews, case histories, observational techniques, and other assessment methods.
- Document patient information including session notes, progress notes, recommendations, and treatment plans.
- Counsel individuals, groups, or families to help them understand problems, deal with crisis situations, define goals, and develop realistic action plans.
- Develop therapeutic and treatment plans based on clients' interests, abilities, and needs.
- Supervise interns, clinicians in training, and other counselors.
- Advise clients on how they could be helped by counseling.
- Analyze data such as interview notes, test results, and reference manuals to identify symptoms and to diagnose the nature of clients' problems.
- Consult with other professionals, agencies, or universities to discuss therapies, treatments, counseling resources or techniques, and to share occupational information.
- Evaluate the results of counseling methods to determine the reliability and validity of treatments.
- Refer clients to specialists or to other institutions for non-counseling treatment of problems.

Source: American Job Center. (n.d.). *Summary Report for: 19-3031.03 – Counseling Psychologists*. Retrieved from http://www.onetonline.org/link/summary/19-3031.03

ses, develop a research protocol, complete necessary experimentation, write up the results from completed experiments, and lastly defend the completed research. Post-graduation employment option for the doctoral student will vary based upon identified specialization. Clinical, counseling, and school psychology graduates will be able to pursue licensure; however, those in strictly experimental capacities, such as cognitive and developmental ranges, will not pursue employment and placement in positions that require licensure, but rather in positions applicable to their training, such as academic, business, military, or the private sector.

Specific Psychological Professional Areas of Potential Consultants and/or Expert Witnesses

Psychological consultation and expert witness testimony about behavior and underlying cognitive problems provides rehabilitation counselors and the court system with information that will direct services and decisions about cases. This consultation and testimony is often provided by psychologists with various training and backgrounds. It is therefore important that there is an understanding of the differences in those psychologists who are most likely to provide this type of expertise support.

A misnomer within the legal field and society in general is the assumption that all professional psychologists are strictly *clinical psychologists*. While clinical psychologists represent a significant segment of the total population of psychologists in number, clinical psychologists are only one of many types of psychologists that make up the overall field of psychology. In the span of the present section, several branches of professional psychology will be discussed.

Most of the psychologists with which rehabilitation professionals will work are licensed and hold a Ph.D. or Psy.D. type of degree. The vast majority of psychologists who pursue licensure will have completed an APA-accredited doctoral program and an APA-approved pre-doctoral internship. APA delineates basic standards which must be addressed in doctoral education and training. APA accredits programs in clinical psychology, counseling psychology, school psychology, or combinations of 2 or more of these core areas. If the accredited program is not approved by APA, then the applicant risks being license-ineligible. Licensure for psychologists must be earned after the Ph.D. or Psy.D. is completed and one to two years of additional supervised experience is achieved. In addition, licensure candidates must pass a standardized national exam and some type of jurisprudence and ethics exam. The latter may be assessed in writing, in an oral exam, or both. Occasionally, psychologists graduating from programs in subdiscipline areas other than those accredited by APA receive licensure. The state licensing board must determine equivalency of training in these cases. Licensed psychologists who provide expert testimony may also have specialized post-doctoral credentials acquired through the American Board of Professional Psychology (ABPP). The credential, referred

to as an ABPP certification, may be earned in numerous specialty areas.

Clinical Psychology. Clinical Psychology focuses on the assessment, diagnosis, and treatment of psychopathology arising from multiple potential etiologies. While these etiologies may stem from the biological, social, cognitive, and/or personality issues, the source of the problem(s) may not be always readily identifiable and may not need to be in order to treat the individual. Nevertheless, precise clinical assessment of the dysfunction is crucial to the diagnosis and treatment of the client. Clinical psychologists typically have extensive special expertise in assessment of human functioning. Based on assessment markers, diagnoses are made in accord to the codes and guidelines set forth in the *The Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2015). Clinical psychologists will then use the diagnosis to guide the treatments that best fit the client's needs. Note that unlike psychologists from other sub-disciplines, clinical psychologists are more likely to work with individuals with severe psychopathology.

Counseling Psychology. Counseling Psychologists focus on the prevention, assessment and treatment of dysfunction. They are specifically trained to evaluate client dysfunction as it related to normative and non-normative events, within the developmental and sociocultural context unique to the client. When psychopathology is present, Counseling Psychologists provide holistic treatment, leveraging client strengths and skills to enhance empirically supported treatment outcomes. Prevention services are often provided by Counseling Psychologists, who use their knowledge of human development and risk factors for psychopathology to fashion prevention programs for those at risk of developing psychopathology as well as those showing subclinical symptoms of a disorder. Of particular value to rehabilitation professionals is the expertise in career counseling that is the hallmark of the traditionally trained counseling psychologist. A counseling psychologist can perform career assessment, coupled with intellectual and personality testing to help the multidisciplinary team examine the post-incident career options for a client. The lifespan perspective utilized in case conceptualization helps to assure that the rehabilitation plan is responsive to stage-of-life issues, thus maximizing the client's satisfaction post-incident.

Clinical Neuropsychology. APA (2014b) defines an area as *Division 6: Society for Clinical Neuropsychology*. This area is made up of individuals who are trained in clinical psychology but hold a specific research interest in the biological basis of behavior. This division is an interdisciplinary division that incorporates not only those who identify themselves specifically as clinical neuroscientists, but also those professionals in other biologically related areas of human behavior, such as cognitive physiological psychology, developmental neuropsychology, clinical rehabilitation, forensic psychology, and health psychology. In any case, these individuals are not only trained in research, but are also trained to render services to humans in the form of assessment, diagnoses, psychotherapy, and in certain cases, drug therapy. Neuropsychologists most often have a Ph.D. in Clinical or Counseling Psychology, along with post-doctoral training in neuropsychology. Many Neuropsychologists have trained in doctoral programs which have specialties in that area and which move students into neuropsychology pre-doctoral internships and residencies. ABPP certification in Clinical Neuropsychology can be earned only after supervised post-doctoral training, proof of training in designated areas of knowledge and experience, and demonstrated competence in practice, which often translates to several years of experience in the field.

Medical Psychology. In certain states, territories, and governmental agencies, licensed psychologists hold prescription privileges, generally referred to as *prescriptive authority (RxP)* by APA. In 1999, the Territory of Guam was the first to approve RxP (Price, 2014). Hawaii was the first U.S. state to consider a legislative bill for RxP for trained psychologist in 1985, and since then numerous states have also followed this same pattern (Fox et al., 2009). However, to date only three states grant RxP to specially trained psychologists. Guam was the first to grant RxP in 1999. New Mexico was the second to grant privileges in 2002, and Louisiana was the third to do so in 2004 (Fox et al., 2009).

New Mexico and Louisiana do have very rigorous training and specific restrictions for clinical psychologist with RxP. New Mexico requires 450 hours of intensive training and 400 hours of extensive supervised practicum with no less than 100 patients before a clinical psychologist can apply for a 2-year conditional prescribing certification (Fox et al., 2009). In Louisiana, clinical psychologists with RxP hold the specific title of *medical psychologist* or MP (Louisiana State Board of Medical Examiners, 2014). To be licensed as a MP, a clinical psychologist must: 1) hold an unrestricted license to practice psychology in Louisiana; complete a post-doctoral master's degree in clinical psychopharmacology; and 3) pass a national exam in psychopharmacology (Louisiana State Board of Medical Examiners, 2014). However, the MP can only prescribe for the first 3 years in consultation, collaboration, and concurrence with the patient's primary physician until they meet additional qualifications for a certificate of advance practice. Furthermore, both New Mexico and Louisiana restrict RxP to psychotropic drugs, with New Mexico allowing the prescription of all psychotropic drugs used to treat mental disorders and Louisiana allowing the prescrip-

tion of only non-narcotic drugs used to treat mental and emotional disorders (Fox et al., 2009).

While these states have gone to extremes to guarantee that these individuals are qualified to prescribe psychoactive drugs, there is still much debate over whether or not psychologist should be prescribing. For example, physicians and psychiatrists opposed to the RxP movement are concerned about medical knowledge and safety issues associated with prescribing (Price, 2014). APA has developed *Division 55: American Society for the Advancement of Pharmacotherapy* to establish standards for treatment and foster collaborative practices across health professionals (APA, 2014c). Nevertheless, clinical psychologists with RxP do come under scrutiny and their expertise is questioned when it comes to prescription drugs.

Biological Psychology. In addition to the above-mentioned applied areas of psychology, a particular case may warrant the consultation or expert testimony of a person who has researched and studied the biological basis of a particular behavior. The American Psychological Association (APA) (2014a) defines *Division 6: Behavioral Neuroscience and Comparative Psychology* as an area of psychology made up of members who are dedicated to the study of the biological basis of behavior. The study of the biological basis of behavior may focus on a number of physiological mechanisms and behaviors. Research in this area may involve studies that are conducted in animals and/or humans, and may involve comparisons of biological and/or behavioral mechanisms across species. Psychological professionals who are trained specifically to do research and educate students on the biological basis of behavior go by many different titles, including physiological psychologists, psychobiologists, biopsychologists, neuropsychologists, behavioral neuroscientists, and comparative psychologists.

Cognitive Psychology. Cognitive Psychology represents a diverse areas of study, crossing over into clinical practice, applied science, and combination of these two dimensions. Pertaining to clinical practice, cognitive psychology have a vital role in Applied Behavior Analysis. That is, Applied Behavior Analysis evaluates human behavior, and then by using principles of learning, seeks to modify behavior. Moreover, an analysis of thought patterns, both productive and counter-beneficial are addressed through Cognitive Behavior Therapy. As an applied science, cognitive psychology similar has many presentations. Experts in the area of cognitive psychology may serve as expert witnesses in such contemporary areas as eyewitness identification (Yuille & Cutshall, 1986), comparison of individual and group behavior (Hinsz, Tindale,

Table 4

Listing of Tasks Completed by Rehabilitation Counselors

- Prepare and maintain records and case files, including documentation such as clients' personal and eligibility information, services provided, narratives of client contacts, and relevant correspondence.
- Develop rehabilitation plans that fit clients' aptitudes, education levels, physical abilities, and career goals.
- Monitor and record clients' progress to ensure that goals and objectives are met.
- Confer with clients to discuss their options and goals so that rehabilitation programs and plans for accessing needed services can be developed.
- Maintain close contact with clients during job training and placements to resolve problems and evaluate placement adequacy.
- Confer with physicians, psychologists, occupational therapists, and other professionals to develop and implement client rehabilitation programs.
- Arrange for physical, mental, academic, vocational, and other evaluations to obtain information for assessing clients' needs and developing rehabilitation plans.
- Analyze information from interviews, educational and medical records, consultation with other professionals, and diagnostic evaluations to assess clients' abilities, needs, and eligibility for services.
- Develop and maintain relationships with community referral sources, such as schools and community groups.
- Locate barriers to client employment, such as inaccessible work sites, inflexible schedules, and transportation problems, and work with clients to develop strategies for overcoming these barriers.

Source: American Job Center. (n.d.). *Summary Report for: 21-1015.00 – Rehabilitation Counselors.* Retrieved from http://www.onetonline.org/link/summary/21-1015.00

Table 5
Listing of Tasks Completed by Mental Health Counselors

- Maintain confidentiality of records relating to clients' treatment.
- Encourage clients to express their feelings and discuss what is happening in their lives, helping them to develop insight into themselves or their relationships.
- Collect information about clients through interviews, observation, or tests.
- Assess patients for risk of suicide attempts.
- Fill out and maintain client-related paperwork, including federal- and state-mandated forms, client diagnostic records, and progress notes.
- Prepare and maintain all required treatment records and reports.
- Counsel clients or patients, individually or in group sessions, to assist in overcoming dependencies, adjusting to life, or making changes.
- Guide clients in the development of skills or strategies for dealing with their problems.
- Perform crisis interventions with clients.
- Develop and implement treatment plans based on clinical experience and knowledge.

Source: American Job Center. (n.d.). *Summary Report for: 21-1014.00 – Mental Health Counselors.* Retrieved from http://www.onetonline.org/link/summary/21-1014.00

Table 6
Listing of Tasks Completed by Psychiatrists

Prescribe, direct, or administer psychotherapeutic treatments or medications to treat mental, emotional, or behavioral disorders.

Gather and maintain patient information and records, including social or medical history obtained from patients, relatives, or other professionals.

Design individualized care plans, using a variety of treatments.

Collaborate with physicians, psychologists, social workers, psychiatric nurses, or other professionals to discuss treatment plans and progress.

Analyze and evaluate patient data or test findings to diagnose nature or extent of mental disorder.

Examine or conduct laboratory or diagnostic tests on patients to provide information on general physical condition or mental disorder.

Counsel outpatients or other patients during office visits.

Advise or inform guardians, relatives, or significant others of patients' conditions or treatment.

Teach, take continuing education classes, attend conferences or seminars, or conduct research and publish findings to increase understanding of mental, emotional, or behavioral states or disorders.

Review and evaluate treatment procedures and outcomes of other psychiatrists or medical professionals.

Source: American Job Center. (n.d.). *Summary Report for: 29-1066.00 – Psychiatrists.* Retrieved from http://www.onetonline.org/link/summary/29-1066.00

& Vollrath, 1997), and effects of cell phone distraction on memory (Smith, Isaak, Senette, & Abadie, 2011).

Additionally, there are numerous subspecialties, depending on the individual's expertise and specific line of research. For example, a person whose expertise is specific to the understanding of the hormonal regulation of brain mechanisms involved with behavior might refer to themselves as a psychoneuroendocrinologist or a behavioral neuroendocrinologist.

For the advancement of science and professions within this domain, there are numerous specific societies made up of scientist with similar interests. For example, the Society for Behavioral Neuroendocrinology is the major society for the before-mentioned specialists interested in hormones and behavior. These societies generally provide professional guidance, training, and opportunities to exchange information through sponsorship of peer-reviewed journals and conferences.

Many behavioral neuroscientists are trained to do research exclusively. These individuals gain training in research methodology during their Ph.D. training in graduate school and during extensive post-doctoral training after graduate school. They are hired by universities and research facilities where they teach and/or conduct research. Many work on research projects funded by local, state, and national agencies, including the National Institute of Health and the National Science Foundation. Their expertise is generally in-depth within a specific area related to their research interest and more broad to the field in general.

Development of Diagnostic Manuals

The development of diagnostic manuals has facilitated the transition of mental health and mental health counseling services to one of providing precise diagnosis of mental disease. Development of such manuals, specifically the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*), enabled psychologists and psychiatrists, along with other mental health professionals, to objectively evaluate and diagnose mental disorders. In general the manual provides general categorization and description of disorders, along with specific diagnostic criteria for characterized mental disorders. Periodically, psychologists and psychiatrists review and revise the information in the DSM, updating it with new information about disorders gathered through research and practice. The current version of the *DSM* is the *DSM-5* released in 2013. While the *DSM* is published by the American Psychiatric Association, this manual continues to be revised and developed through the collaboration of the psychiatric and psychological professions.

Differentiating Psychologists from Other Applied Mental Health Professionals

While much of the focus here has been in areas where the Ph.D. or Psy.D. is either required or expected in order to provide professional services, there does exist a few areas of psychology where services can be rendered with a master's degree within a limited domain. One such area is Applied Behavioral Analysis (ABA). Individuals with specialized master's degrees in ABA are trained extensively to do psychological assessment and may earn state board certification and hold the title of BCBA (Board Certified Behavioral Analyst).

While psychologists are generally educated and trained to deal with behavior and thought processes, there are other areas where similar education and training does prevail. One such distinguishable area that is often confused with psychology is counseling. In most states, counselors and psychologists are independently licensed by separate boards. Counselors may be licensed in most states with only a master's degree. There are generally 3 types of counselors: Guidance Counselors, Mental Health Counselors, and Rehabilitation Counselors. While counselors are trained to advise and counsel clients within their specific domains, they are generally not trained in the area of assessment and diagnosis. Depending on the state, these individuals may hold board certification or licensure in a particular area. For example, depending on the state, a Mental Health Counselor may hold the title of LPC (Licensed Professional Counselor), LCPC (Licensed Clinical Professional Counselor), or LMHC (Licensed Mental Health Counselor). Likewise, there exists separate licensure and/or certifications for Guidance Counselors and Rehabilitation Counselors. Furthermore, within the realm of these areas there may exist specific licensure and/or certification relative to the client or services provided, like that seen with MFT (Marriage and Family Therapists). In most cases, to become licensed or certified, one must meet certain educational, training, and supervised practicum requirements. And in many cases, these credentials are issued only after the person has sat for some board exam. Regardless, the credentials of these individuals should reflect their education and training within a specific domain.

One other area that overlaps to some degree with these areas is the area of social work. Social workers assist people with difficulty coping to find the means that can better their lives and experiences. People with a bachelor's degree from an accredited university may function as RSW (Registered Social Worker). Individuals with master's or Ph.D. degrees in social work may be licensed as either LMSW (Licensed Master Social Worker) or LCSW (Licensed Clinical Social Worker). Again, these individuals must meet the educational, training, and experiential requirements for

licensure. In the case of the LCSW, they will also have to sit for a board exam.

Moreover, it is important to differentiate psychology from psychiatry. While both disciplines have a focus on human behavior, psychiatry strictly focuses on a medical model to describe behavior. Utilizing a medical model, psychiatrists traditionally utilize medications, coupled with therapy to treat mental disorder. Moreover, the training is significantly different. Psychiatrists attend medical school, while psychologists, including psychologists given prescriptive authority, do not attend medical school. Pertaining to needed medications related to a life care plan, one may most probably consult with either a psychiatrist or medical psychologists.

In any case, it is pertinent that the all involved in a litigation case be familiar with the credentials of the individual who is providing consultation and/or expert witness testimony. Furthermore, while the credentials of the individual may reflect a standard educational, training, and experiential requirement for the earning of that licensure or certification, it may not fully reflect the extent or quality of service that the person has provided.

Conclusion

Obviously, the main consideration when selecting and identifying a psychologist for practical litigation purposes is identification of the determination and tenacity for consultation. Referencing determination, selection of a specialist will be based on the type of information needed to assist with either valuing a case or presenting information to a selected jury. Regarding tenacity, the attorney must determine the level of expertise needed for a selected case.

It is a goal for the present article to not only direct attorneys and rehabilitation professionals to select and utilize psychologists for mental health consultations, but also for applied areas, such as cognitive science. It is a goal that this article will prompt discussions and delineation of other professions applicable to applied rehabilitation science and practice, including nursing, economics, counseling, social work, physical therapy, and occupational therapy.

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