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Centro de Estudios y Documentación sobre la Educación Superior  
CEDESP

**PRACTICE ANALYSIS  
OF LICENSED PSYCHOLOGISTS IN PUERTO RICO:  
RELEVANT KNOWLEDGE, ROLES,  
AND RESPONSIBILITIES**



Leslie E. Maldonado Feliciano  
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Commonwealth of Puerto Rico  
Puerto Rico Council on Higher Education  
Division of Research and Documentation  
Center for Research and Documentation on Puerto Rican Higher Education

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October 2010

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## EXECUTIVE SUMMARY

### Project Background

This Practice Analysis of Licensed Psychologists in Puerto Rico: Relevant Knowledge, Roles, and Responsibilities originated from the 2008-09 call for research proposals of the CRDPRHE. The study was sponsored under the general subject category.

The first practice analysis of psychologists in Puerto Rico was conducted twenty-three years ago to inform the development of the licensure examination by the Puerto Rico Psychologists Examining Board (Cirino & Magriñá, 1987). For the past decades notable changes in social needs, employment markets in the health and human services areas for psychologists, and transformations in the discipline itself have influenced educational opportunities in psychology and professional activities in many ways. Conducting a practice analysis study of licensed psychologists in Puerto Rico provides updated information for the advancement of public policy issues in the areas of graduate education and training, licensure, and professional performance. The findings of this study represent a state-of-the-art description of the practice of psychology in Puerto Rico.

The purposes of this practice analysis study are to: (a) identify the current roles and responsibilities performed by licensed psychologists residing in Puerto Rico, and the associated knowledge and skills required for professional practice, (b) describe the demographic and professional characteristics of participants, (c) provide the Puerto Rico Council on Higher Education with information to promote public policy applicable to higher education institutions and psychology programs in particular, (d) provide the Puerto Rico Psychologists Examining Board with information to establish the validity of the licensure examination, (e) provide higher education institutions with information for curriculum design, development, and revision, and (f) develop a comprehensive source of information about the contemporary scope of practice of psychology in Puerto Rico.

A process - and a content - based approach were used to delineate complementary perspectives for examining the practice of licensed psychologists. The process-based approach comprises the delineation of roles and associated responsibilities performed by psychologists providing a structure for describing contemporary practice regardless of the major area of practice and employment settings. The content-based approach comprises the delineation of content areas and associated knowledge statements providing a structure for identifying a comprehensive listing of the critical knowledge that psychologists need to know in order to perform the responsibilities identified as part of professional practice regardless of the major area of practice and employment settings.

### **Process**

The questionnaire developed for this practice analysis was based on information from different sources including job descriptions, information provided by practitioners about their activities and responsibilities, job related tasks and knowledge areas assessed by Cirino and Magriñá (1987), graduate psychology programs descriptions, and practice analysis questionnaires used by professional psychology organizations. A representative group of subject-matter experts from different psychology practice areas and experience in test development and measurement were asked to review the survey questionnaire and provide feedback on the clarity of wording, instructions, layout, ease of use, comprehensiveness of content coverage, and amount of time needed to complete it.

Respondents completed a questionnaire containing six sections addressing their practice experiences for the past year. They were asked to provide information about demographic, professional background and ratings on professional roles (viz., Psychological Services, Consultation, Outreach, and Policy Making, Academic Preparation and Professional development, Research, Evaluation, and Scholarship), responsibilities associated with the roles, and categories of knowledge used in their professional practice (viz., biological, cognitive-affective, and social-multicultural bases of behavior, growth and lifespan

development, assessment and diagnosis, treatment, intervention, and prevention, research methods and statistics, and ethical, legal, and professional issues). Rating scales addressed the following specific performance parameters, time spent on a task, frequency of task performance, level of knowledge usage, and the importance of promoting the client/public wellbeing. Respondents were asked to make ratings about their own practice of psychology and the profession in general, as well as comments about professional development, legal regulation of the psychology profession in Puerto Rico, future developments, and professional training.

The design of the practice analysis involved four sequential mailings to participants. Potential participants received a pre-survey postcard describing the purposes of the project and inviting their participation in the data collection efforts. All reachable and eligible potential participants received the survey packet consisting of covers letters, the questionnaire booklet, and a stamped, self-addressed return envelope. Two follow-up reminder/thank you postcards were mailed to all potential participants not returning a completed questionnaire. An electronic version of the questionnaire was available to those interested, and follow-up reminders were provided at professional events, through electronic forums, and mailing list servers. The data collection process was conducted from October 2009 to March 2010.

### **Summary of Results**

Descriptive statistical procedures were used to summarize the quantitative and qualitative data. Research survey packets were sent to 2,469 licensed psychologists with residence in Puerto Rico listed in the directory of the Puerto Rico Department of Health by May 2009. One hundred and twenty-eight survey packets were returned as undeliverable and 20 were unusable reducing the number of potential eligible respondents to 2,321. Usable surveys were received from 470 participants for an overall return rate of 20.25%. According



to Knapp & Knapp (1995) the response rates for most practice analysis surveys fall in the range of 20% to 35%.

The analyses produced a profile of licensed psychologists in Puerto Rico including: (a) professional and demographic descriptions of the general group, and recently and less recently licensed psychologists, (b) process-based descriptions of the roles and responsibilities performed, (c) content-based descriptions of the content areas and knowledge used in professional practice, (d) comments regarding professional development, legal regulation of psychology, future developments, and professional training, and (e) recommendations to inform and refine the content areas of the licensing examination showing the knowledge base required for the various responsibilities psychologists are expected to assume in their professional practice.

### **Professional Background and Demographic Descriptions**

Seventy-three percent ( $n = 343$ ) of the 470 licensed psychologists who participated in the study were females. Most respondents resided in the Metropolitan Area (47%;  $n = 221$ ) and reported a doctoral degree (61%;  $n = 286$ ) as their highest level of education in psychology. The average number of years of experience as a psychologist was 11.8 ( $SD = 10.0$ ;  $Mdn = 9.0$ ) with a range from 5 to 55 years ( $n = 468$ ). The area of clinical psychology was indicated by 49% ( $n = 232$ ) of respondents as their major area of training and by 43% ( $n = 203$ ) as their current major area of practice. Seventy percent of the respondents reported holding a doctoral degree in clinical psychology, whereas 35% hold a master's degree in counseling psychology and 24% a master's degree in school psychology. Eleven percent ( $n = 50$ ) indicated that they had participated in a postdoctoral training program.

The most frequently reported theoretical orientation was cognitive-behavioral psychology (53%;  $n = 251$ ). Forty seven percent ( $n = 219$ ) hold a one job, 30% ( $n = 142$ ) hold two jobs, and 14% ( $n = 65$ ) hold three or more employments. Forty-one percent ( $n = 193$ ) indicated that their primary employment setting fell within the general category of human

service settings whereas 16% ( $n = 76$ ) indicated an institution of higher education, 15% ( $n = 70$ ) indicated an educational institution (k-12)/school system, and 16% ( $n = 75$ ) indicated some other employment setting. Respondents indicated psychotherapy (55%;  $n = 257$ ), assessment and diagnosis (48%;  $n = 226$ ), and children and adolescents (45%;  $n = 212$ ) as three leading areas of expertise. One hundred and sixty respondents (34%) indicated having professional degrees in areas other than psychology. Participants reported a high degree of satisfaction with their current job in psychology and with their career in psychology.

In terms of the less recently and recently licensed respondents, 62% ( $n = 291$ ) received a license to practice psychology between 1984 and 2003 whereas 38% ( $n = 177$ ) received a license to practice psychology between 2004 and 2009. The majority of the less recent (68%) and recently licensees are female, while the number of male recent licensees (18%) is becoming smaller over time. Recently licensed psychologists are more likely to hold more than one employment position than the less recently licensed psychologists.

Three hundred and ninety-two respondents (83%) considered themselves to be health service providers in psychology. Among the respondents who self-described as health service provider, 53% ( $n = 207$ ) reported clinical psychology as their major area of training, 17% ( $n = 66$ ) counseling psychology, and 12% ( $n = 46$ ) school psychology. The average gross annual income for the general group is \$45,000 (Mdn = 40). The average gross annual income for master's level psychologists is \$36,000 (Mdn = 39) and \$51,000 (Mdn = 52) for doctoral level psychologists. The majority of respondents considered that the profession of psychology should continue to be regulated by law and more than half considered the doctorate as the entry level degree for professional practice.

### **Results Related to the Delineations**

Preliminary statistical analyses indicated that there were few differences in the ratings obtained from recently and less recently licensed respondents. Accordingly, the

ratings of all the respondents on the roles and responsibilities and on the content areas and knowledge statements were combined for final data analysis.

### **Process-Based Delineation**

**Roles.** The Psychological Services role was rated very important to the practice of the respondents for promoting client/public wellbeing, with 95% of the ratings at scale point 3. The mean Time ratings indicated that respondents spent about 59% of their time in that role. The remaining roles were all rated as moderately important to their practice. Respondents devote different amounts of work time to the roles and spent no more than about 15% of their time in each of the remaining roles. Respondents devote the smallest work time to the Research, Evaluation, and Scholarship role. The magnitude of the standard deviations associated with the mean Time ratings suggested a great deal of variability in the practice patterns of the respondents.

The Importance scale ratings of the roles by respondents representing four major areas of practice (Clinical, Counseling, School, & Industrial-Organizational psychology) demonstrated more similarities than differences among practice areas. Respondents in the four areas of practice showed a high degree of consensus in their ratings of the four roles as important to their practice and promote client and public wellbeing. The percent of Time scale ratings across the four areas of practice showed that respondents were dissimilar in regard to their ratings for the Psychological Services role. Respondents, self-identified in the industrial-organizational psychology practice area, reported not devoting at least 50% of their work time to that role. In addition, the percent of Time scale ratings showed that none of the respondents representing major areas of practice devoted at least 50% of their time to any of the remaining three roles.

Master's and doctoral level respondents rated the Psychological Services role as very important to their practice with 95% of the ratings at scale point 3 respectively. For doctoral level respondents, the Academic Preparation and Professional Development role was rated as

very important with 80% of the ratings at scale point 3. The mean Time ratings indicated that master's and doctoral level respondents devoted most of their work time to the Psychological Services role. Master's level respondents devote the smallest work time to the Research, Evaluation, and Scholarship and Academic Preparation and Professional Development roles. Doctoral level respondents devote the smallest work time to the Consultation, Outreach and Policy making and Research, Evaluation, and Scholarship roles.

**Responsibilities.** The Importance and Frequency ratings of the responsibilities were generally consistent with the Importance and Time ratings of the associated roles. The responsibilities associated with the four roles were rated as moderately-to-very important to the practice and promotion of client/public wellbeing. The Frequency ratings of responsibilities associated with the Psychological Services role indicated that respondents performed these with moderate frequency. The ratings of responsibilities associated with Research, Evaluation, and Scholarship, Consultation, Outreach, and Policy Making, and Academic Preparation and Professional Development roles indicated that respondents performed these very rarely - to - infrequently. The pattern of Importance and Frequency ratings of the responsibilities for master's and doctoral level respondents were similar to the ratings of the general group. One responsibility associated with the Psychological Services role ("Proveer Servicios psicológicos y/o referidos conociendo tipos de evaluación e intervenciones disponibles") was rated the highest of all responsibility on the Importance and Frequency rating scales.

### **Content-Based Delineation**

**Content areas.** The Importance ratings for the eight content areas ranged from 2.6 for Research Methods and Statistics content area to 2.9 for the remaining content areas, indicating that the content areas range from being moderately - to - very important to the practice of licensed psychologists in promoting the wellbeing of the client/public. About 90%

of the ratings for four of the eight of the content areas were at scale point 3. Only one content area, Research Methods and Statistics, had 70% of the ratings at scale point 3.

The mean Frequency ratings for the content areas ranged from 1.4 for the Research Methods and Statistics content area to 2.6 for the Cognitive-Affective Bases of Behavior content area indicating that the respondents call upon knowledge from the content areas from infrequently - to - moderately frequently to moderately - to - very frequently. Consistent with the Importance ratings, respondents call upon the knowledge from seven of the eight content areas, moderately - to - very frequently, and the knowledge from Research Methods and Statistics content area, infrequently - to - moderately frequently. In general, ratings from Importance and Frequency scales are indicating that respondents recognized that knowledge associated with a content area could be important for promoting the wellbeing of client/public even if it was not called upon in their own practice.

The ratings of the content areas by respondents in four areas of practice were generally consistent. Their Importance ratings were similar in regard to the eight content areas. They were similar in regard to their Frequency ratings in connection with six content areas. They were least similar in regard to their Frequency ratings in connection with the Research Methods and Statistics content area. Respondents of one area of practice (i.e., industrial-organizational) called upon the knowledge from that content area at least moderately frequently, while respondents in other areas of practice (i.e., Clinical, Counseling, and School) did not. The respondents were also dissimilar in regard to their Frequency ratings in connection with the Treatment, Intervention, and Prevention content area. Respondents in three areas of practice (i.e., Clinical, Counseling, and School) called upon the knowledge from that content area at least moderately frequently, while respondents in one area of practice (i.e., industrial-organizational) did not.

The pattern of Importance and Frequency ratings of master's and doctoral level respondents was similar to total group's ratings. However, for master's level respondents,

the Ethical, Legal, and Professional Issues content area had 62% of the Importance ratings at scale point 3, whereas for doctoral level respondents the Research Methods and Statistics content area had 70% of the Importance ratings at scale point 3. Master's and doctoral level respondents call upon the knowledge from seven of the eight content areas moderately - to very frequently and the knowledge from Research Methods and Statistics content area, infrequently-to-moderately frequently.

**Knowledge statements.** The Importance ratings for the 79 knowledge statements delineated in connection with the eight content areas indicated that respondents consider the statements moderately -to- very important for promoting client/public wellbeing. Seven knowledge statements from different content areas were rated low in the Usage scale suggesting minimal or no usage.

### Qualitative Results

Respondents indicated interest in developing skills and advanced knowledge through seminars, workshops, and similar educational experiences in over 50 topics, including neuropsychology/neurosciences, psychopharmacology, forensic psychology, use and application of technology in psychology, psychological measurement/testing, and research and statistics.

Respondents supported the legal regulation of psychology in order to: (a) enforce and monitor ethical and professional behavior; (b) establish quality controls; (c) protect the public; (d) protect the profession and its image; and (e) ensure quality of service. Respondents also commented on the need for revisions or amendments to the licensing law in order to distinguish providers of health-related psychological services from psychologists providing services in other areas of practice.

Respondents commented on a variety of reasons to support either the master's or the doctoral degree as the entry level for professional practice. Supporters of the master's degree believe that it provides adequate preparation and knowledge for practice whereas

supporters of the doctoral degree believe that it provides more and better preparation, knowledge, and skills for practice. Regardless of the entry level degree required for practice, respondents would favor that the licensing process distinguish providers of health-related psychological services from psychologists providing services in other areas of practice.

Respondents commented on approximately 36 themes of interest or areas for changes in the profession including (a) professional credentialing recognizing the area of practice (clinical or non-clinical); (b) increased participation in public policy; (c) revision and updating of academic programs; and (d) pleading for better wages.

Perceived problems involving the legal regulation of psychology in Puerto Rico were grouped into 28 categories. Respondents commented on topics such as (a) the need for clinical and non-clinical definitions of scope of practice; (b) concerns about the enforcement of ethical and professional behavior; (c) the entry level for professional practice; (d) need to revise and update the licensing law; and (e) a perceived lack of knowledge about the profession from the government and society in general.

In regard to respondents' suggestions to graduate psychology programs, responses were grouped into 32 categories. In general participants understand that academic programs should be revised and modified to reflect current professional developments and the socio cultural needs of the country, including increasing the practicum hours required for masters and doctoral level students.

Recommendations to inform and refine the content areas of the licensure examination are provided for the categories of knowledge used by psychologists in professional practice. Seventy-eight (78; 99%) knowledge statements are considered eligible for inclusion in the licensure exam test specification. Recommendations are also provided for the consideration of the Puerto Rico Council on Higher Education, the Puerto Rico Psychologists Examining Board, and psychology programs.





## INTRODUCTION

Practice analysis studies are designed to construct a detailed description of current practice in a profession or occupation. In contrast to the traditional job-analysis used to collect and analyze job-related information to identify job requirements primarily for human resource management or job classification purposes (e.g., Gatewood & Feild, 1991; Spector, Brannick & Coovert, 1989), the goals of the practice analysis are to identify and describe the practice patterns of active practitioners employed in the profession working in different types of settings and providing a wide range of services to a diverse population of clients. In addition to providing an accurate description of the scope of practice or responsibilities, it also determines the general knowledge base, skills, and abilities employed by practitioners to effectively carry out those responsibilities (Kane, 1997; Knapp & Knapp, 1995; Raymond, 2001).

In regard to credentialing exams, practice analysis information (a) provides the link between test content and real-world practice, (b) ensures that the examination is job-related, and (c) provides the foundation for examination validity. It is a step in developing a psychometrically sound and legally defensible licensure examination. In a typical practice analysis study, a large sample of practitioners is surveyed and asked to complete a comprehensive practice questionnaire. Participants are asked to provide information about demographic and professional background and ratings on professional roles, responsibilities, and categories of knowledge used in practice. Rating scales address specific performance parameters such as time spent on tasks, frequency of task performance, level of knowledge usage, criticality to public protection, importance of task or knowledge to professional competence (Kane, 1997; Knapp & Knapp, 1995; Raymond, 2001, 2005; Schoon, 1998). According to Kane (1997), practice analysis provides objective information on patterns of practice, empirical base for licensure examination development, and validity evidence for the interpretation of test scores.

Protection of the public welfare is a responsibility shared by graduate training programs in psychology and the Puerto Rico Psychologists Examining Board (hereafter, the Board). Graduate psychology programs and the Board share the obligation of ensuring that psychologists graduated from those programs and licensed by the Board possess the knowledge and skills needed and demonstrate the basic level of competence required for the safe and effective practice of the profession. The notion of demonstrated basic level of competence refers to a set of procedures designed to ensure that licensed psychologists have met all academic, professional, and legally specified requirements for independent practice (Hall, 1987).

Professional training programs in psychology provide exposure to the foundations of the discipline, information about the kinds of situations that will be encountered in practice, and practical knowledge and/or skills on how these situations should be competently handled. Because of the reciprocal influence between training and practice, empirical practice analysis provides guidance for educational program enhancement in regard to curriculum review and/or program self-assessment. The interface between training programs and professional practice reaffirms the former's pertinence to address the needs of the profession and society.

Upon graduation, individuals who want to practice psychology in Puerto Rico are required to meet licensure requirements. One of the requirements of the licensure process in Puerto Rico is a satisfactory performance in the licensure examination. The examination is designed to evaluate the breadth of knowledge in substantive areas of psychology and the candidate's ability to integrate and apply it at an entry level of practice (Law 96, 1983). To the extent that the licensure examination assesses the knowledge and skills that are important for effective performance in practice, a candidate's score is generally interpreted as evidence of the degree of ability or readiness for practice across a wide range of activities in a variety of settings (Kane, 1986). Typically, the knowledge assessed on the licensure examination is empirically linked to practice through a practice analysis study or to another

method of content validation (Hall, 1987; Knapp & Knapp, 1995; Raymond, 2001, 2005; Schoon, 1998). Moreover, the comment following Standard 14.14 of the Standards for Educational and Psychological Testing (AERA, APA, & NCME, 1999) recognizes credentialing exams should be job-related, emphasizes the importance of practice analysis and its relevance for curriculum design and development of licensure examinations.

**The objectives of the study are to:**

1. Update the practice analysis of licensed psychologists in Puerto Rico by identifying the current roles and responsibilities performed by these professionals and the associated knowledge and skills required for professional practice.
2. Describe the demographic and professional characteristics of respondents with regard to gender, education, area of training, years of experience, area of practice, theoretical orientation, employment setting, and satisfaction with their career in psychology.
3. Provide the Puerto Rico Council on Higher Education with information to promote the development of public policy on higher education and to psychology programs in particular, to develop curricular offerings consistent with contemporary professional practice, students, and society needs.
4. Provide the Puerto Rico Psychologists Examining Board with information to establish the validity of the licensure examination (i.e., extent to which the content covered by the examination is job-related and scores indicate the candidate's readiness for practice).
5. Provide higher education institutions with information for curriculum design, development, and revision.
6. Develop a comprehensive source of information about the contemporary scope of practice of psychology in Puerto Rico and share this information with the public,

government agencies, institutions of higher education, professional associations, and third-party payers.

### **Statement of Problem**

The first practice analysis of psychologists in Puerto Rico was conducted twenty-three years ago to inform the development of the licensure examination by the Board (Cirino & Magriñá, 1987). For the past decades notable changes in social needs, employment markets in the health and human services areas for psychologists, and transformations in the discipline itself have influenced educational opportunities in psychology and professional activities in many ways. Conducting a practice analysis study of licensed psychologists in Puerto Rico provides updated information for the advancement of public policy issues in the areas of graduate education and training, licensure, and professional performance.

The practice analysis helps to identify actual work activities, relevant knowledge and skills needed by these professionals, and establish linkages between professional activities and the knowledge and skills needed to perform at the time of initial licensure. It will also serve to identify potential areas of concern relevant for graduate education and training, licensure, and performance. By identifying important responsibilities and basic competencies the study provides a foundation for training and evaluation. The study assess the extent to which practice is homogeneous across the members of the profession or whether any differences exist according to academic level and practice areas. The practice analysis's results are relevant to inform and update the knowledge and skills assessed by the Board's licensure examination.

### **Guiding Questions**

This study is guided by the following questions.

1. What roles and responsibilities characterize the professional practice of licensed psychologists residing in Puerto Rico?
2. What subset of knowledge in psychology is essential at the time of initial credentialing?
3. What roles, responsibilities, and knowledge are important to promote the client and public wellbeing?

## LITERATURE REVIEW

This review addresses the following topics: Education and training of professional psychologists in Puerto Rico, Regulation of the psychology profession in Puerto Rico, and Practice analysis of psychologists in the United States and Puerto Rico.

### **Education and Training of Professional Psychologists in Puerto Rico**

Psychology as a discipline began in Puerto Rico in the last quarter of the 19<sup>th</sup> century when the field began to flourish in academic settings (Alvarez, 2006). Since then, education, training, and practice of psychology in the country has been influenced by theories, models, and techniques mainly developed in the United States (e.g., Lucca-Irizarry & Roca de Torres, 2006; Rivera-Ramos, 1984). In 1966, masters' level programs were developed at the University of Puerto Rico (UPR) and at the Puerto Rico Institute of Psychology, a free-standing professional school. The Puerto Rico Institute of Psychology became the Caribbean Center for Advanced Studies (CCAS) in 1970, and is known as Carlos Albizu University since 2000. In early 1970s, the CCAS became the first institution in Puerto Rico to confer doctoral degrees in psychology. The UPR began its doctoral program in 1986 (Nuevo programa doctoral UPR, 1986) and conferring doctoral degrees in 1989 (Cabrera-Salcedo, 1989).

Over the years, opportunities for undergraduate and graduate training in psychology have significantly increased. At present, there are 13 undergraduate programs (U.S. Department of Education, 2008) and ten institutions offering 16 programs at masters-level and 18 programs at doctoral-level (B. E. Rivera-Alicea, Analyst, PR Council on Higher Education, personal communication, June 10, 2010). The degrees awarded to graduates in psychology include, Master in Arts (M.A.), Masters in Science (M.S.), Master in Psychology (M.Psy.), Doctor of Philosophy (Ph.D.), and Doctor of Psychology (Psy.D.). Psychologists in Puerto Rico may also hold the Doctor of Education (Ed.D.) degree. In addition to the aforementioned institutions (viz., UPR & CAU), there are graduate psychology programs at the

Inter American University of Puerto Rico (Aguadilla, Metro, San Germán campuses), the Pontifical Catholic University of Puerto Rico (Ponce campus), Bayamón Central University, Ponce School of Medicine, Turabo University (Gurabo Campus), and Metropolitan University (Cupey Campus).

Education and training at graduate level are offered in the following practice areas, Counseling Psychology, Clinical Psychology, School Psychology, Industrial-Organizational Psychology, Social-Community Psychology, Academic-Research Psychology, and General Psychology. Three of the six doctoral-level programs in clinical psychology, are accredited by the American Psychological Association (APA, 2006). Also, one predoctoral internship training program, offered through the Veterans Affairs Caribbean Healthcare System, has been accredited by the APA since 2001 and recently received full accreditation until the year 2012 (APA, 2006). In general, masters' degree programs require the completion of 43 to 63 graduate credits, supervised practicum, and presentation of a research project (optional). Doctoral-level programs require from 80 to 103 graduate credits beyond the bachelor's degree, comprehensive exams, supervised practicum, dissertation, and one-year predoctoral internship (clinical, school, and counseling psychology only).

According to institutional catalogs, graduate psychology programs in Puerto Rico require students to demonstrate competence in individual differences, biological, cognitive-affective, and social bases of behavior. Students also receive instruction in history and systems of psychology, professional ethics and standards, research design and methodology, statistics and psychometrics, and cultural diversity. These curriculum areas shared by the programs serve as a foundation for understanding psychology as a scientific discipline and to distinguish it from other disciplines. Students are also required to complete courses and supervised applied practicum experiences relevant to their training goals and intended practice area. These curriculum criteria also serve to clarify operationally whether or not an applicant for licensure as a psychologist has in fact completed a graduate training program in

psychology. In this sense, psychologists in training are required to develop mastery of contemporary theoretical approaches, research skills, and proficiency in the use of a variety of interventions and psychological instruments within contemporary ethical and professional standards. It is at this foundational education and training level that the qualities characteristic of a competent professional take root and lead to entry level of practice (PSM, 2005; PUCPR, 2005; UCA, 2007; UCB, 2004; UIPR, 2005, 2007; UPR, 2002, 2005; UT, 2006; UMET, [E. Gordon, Dean, school of Social Sciences, Humanities, and Communications, Metropolitan University of PR, personal communication, August 16, 2010]).

Psychology is a scientific discipline and a profession characterized by a clear sense of social responsibility. From the perspective of the Puerto Rico Council on Higher Education (PRCHE) (CESPR, 2000) social responsibility is a matter of pertinence and quality. Higher education in Puerto Rico must make a significant contribution to society in all its dimensions. It should strive to address societal needs and improve the common good through research, service, problem solving, active community involvement, and by promoting correspondence between professional programs, social needs, and the changing employment market for graduates. In the case of psychology, it means to develop and maintain curricular offerings that relate the knowledge, skills, and abilities of psychologists in training to contemporary professional practices and the needs of the population that will receive their services. Information from practice analyses of licensed professionals, surveys of graduates, self-study, and data on the graduates' performance on the licensure examination may provide valuable information on the strengths and areas of improvement in the educational curriculum.

Psychology programs' commitment to social responsibility may also be acknowledged at different levels. Unequivocal recognition of such commitment is evidenced in programs' catalogs stating the education and training of professional psychologists to provide a variety of services to individuals, groups, communities, and organizations as one of their major objectives. Being approved by the Puerto Rico Council on Higher Education or accredited by



the APA, both peer review processes aimed at assess and publicly certify that institutions and/or programs, demonstrate a commitment to the quality of professional education and training relative to a set of standards, serve a public accountability function for the higher education community, the profession, and society in general. Demonstration, that graduates meet criteria related to education and experience and are capable of passing a licensure exam, assure consumers that a licensed psychologist has the basic knowledge, skills, and abilities required to initiate his or her professional practice. Graduate training programs are accountable to their students, who are preparing for a career in psychology and paying for a high quality education, and to the general public who will receive the professional services of their graduates. Psychologists have much to contribute to public health services through the applications of psychological knowledge to prevent and direct care in multidisciplinary settings and to shaping and evaluating public policies on education, health, and other human services (e.g., Lugo-Hernández, Martínez-Pedraza & Serrano-García, 2005).

### **Legal Regulation of the Psychology Profession in Puerto Rico**

The professional practice of psychology has been regulated by statute in Puerto Rico since June 4, 1983 for the purpose of protecting the general health, safety, and well-being of the public. Law 96 is based on the assumption that the public must be protected from unqualified, unscrupulous, and/or unethical practitioners and the goal of ensuring quality standards for better psychological services to the citizenry. The law created the Puerto Rico Psychologists Examining Board, established its functions, duties and powers, defined the scope of practice in order to limit the practice only to those qualified, mandated continuing education requirements for relicensure, and fixed penalties for its violation. In Puerto Rico, the psychology law is generic and masters and doctoral level psychologists are credentialed without reference to specialty practice (Law 96, 1983; Rivera & Maldonado, 2000; Maldonado & Rivera, 2006).

The Board employs several evaluation and accountability procedures to ensure that minimal standards have been met by candidates for licensure. The requirements involve evidence of good moral character (i.e., sworn testimony of two licensed psychologists regarding applicants' character and fitness for practice), educational requirements, and satisfactory performance in the written licensure examination. Candidates for licensure are required by the Board to submit evidence attesting the formal accreditation status of the graduating higher education institution and of successful completion of an educational program that provide appropriate, basic training in psychology. Because in Puerto Rico there is no official consensual definition of what constitutes an adequate body of training for the professional psychologist nor procedures or criteria to designate psychology programs, the Board must assess each applicant's education to ascertaining the adequacy of training and determine whether basic educational requirements in the discipline have been met. Given the number of graduate programs available each with their own particular requirements, ascertaining the adequacy of training in psychology involves more than determining that degree requirements have been met. Current educational requirements for licensure include holding a doctoral degree from a clinical psychology program or a master's or doctoral degree in other areas of psychology (Law 96, 1983; Rivera & Maldonado, 2000; Maldonado & Rivera, 2006).

There are at least two ways in which educational requirements may influence the interpretation of licensure examination results. Educational requirements influence the specification of the content domain to be covered by the examination. Because the content of the program curriculum and the content of the licensure examination emphasize knowledge and skills considered as needed for effective practice it is expected to find a high degree of overlap between them. Educational requirements also influence the pass/failure rate on a licensure examination. The existence of educational requirements in necessary substantive content areas provides some assurance that examination candidates are generally

well prepared and therefore the failure rate should be low. However, if the failure rate were high, it would suggest that either the programs or the examination may not be operating adequately (Kane, 1986).

The Board has the duty to prepare and administer the licensure examination, a generic examination designed to evaluate the breadth of knowledge in substantive areas of psychology and the candidate's ability to integrate and apply it (i.e., minimal competence level) at an entry level of practice (Article 11 [j], & Article 13, Law 96, 1983). The licensure examination is required to all candidates regardless of the institution which granted the masters or doctoral degree and of individual intended practice areas. The instrument is a 200-item multiple-choice examination developed by the Board assisted by a committee of licensed psychologists and faculty members from several graduate psychology programs and a private testing company which provides technical assistance and other support services. Currently, the licensure examination assesses the following subject areas: ethical and professional issues, learning, motivation, social psychology, physiological psychology, personality, development, measurement, statistics, and psychopathology (JEPPR, 2008).

The search for professional competence and the protection of the public from harm is an ongoing process that involves careful graduate department admission policies, successful completion of an educational program, passing the licensure examination, and meeting post-licensure educational and disciplinary requirements. According to Kane (1986), the licensure examination provides an additional check on the educational preparation of individual candidates for licensure by distinguishing those well prepared from others with training deficiencies. By providing an external check on the quality of educational programs, the examination promotes consistency of standards across programs and serves as an incentive for programs with high failure rates to improve their graduate's performance. Licensure informs the public that the licensee has the knowledge, skills, and abilities required for safe and effective practice. In addition to program educational requirements, the content assessed by

the licensure examination is empirically tied to the results of a practice analysis study in which major responsibilities of licensed psychologists and the knowledge, skills, and abilities considered important for practice are identified (e.g., Knapp & Knapp, 1995).

The most recent report of the Puerto Rico Department of Health indicated that there were 1,599 active psychologists in Puerto Rico during the 2004-2007 registration cycle (PRDOH, nd). Of these, 27% ( $n = 431$ ) were males and 73% ( $n = 1,168$ ) were females. The average age was 50 with a standard deviation of 11.6 and a range from 27 to 88 ( $n = 1,599$ ). The average age for males was 53.5 ( $SD = 11.4$ ) and 48.4 ( $SD = 11.4$ ) for females. Over fifty percent of active psychologists in Puerto Rico resided (52%;  $n = 835$ ) and worked (53.5%;  $n = 855$ ) in the Metropolitan Area. Fifty-four percent ( $n = 856$ ) reported a master degree and 46.3% ( $n = 741$ ) a doctoral degree in psychology. Eighty-eight percent ( $n = 1,401$ ) received their graduate level training at institutions in Puerto Rico and 9% ( $n = 147$ ) at institutions in the United States. About 2% received their training at Latin American or European (1%) institutions. In terms of employment setting for their primary position, 40.2% ( $n = 642$ ) worked in the public sector, 38.2% ( $n = 611$ ) in the private sector, 21.2% ( $n = 339$ ) are self-employed, and .4% ( $n = 78$ ) reported voluntary jobs. According to the Puerto Rico Psychologist's Examining Board 2,923 licenses have been awarded from 1984 until September of 2007 (Boulón-Díaz, personal communication, October 27, 2007).

### **Job Description of Psychology Positions in Puerto Rico**

The development of a practice analysis benefits from a collection of occupational information obtained from several sources such as position or job descriptions, interviews with practitioners, observations of practice, interviews with subject matter experts, compilation of worker logs, among others. The information gathered from these varied sources is instrumental in defining the critical performance areas and the underlying knowledge, skills, or abilities that results in a definition of practice. The resulting definition

of practice is then validated by collecting ratings on the importance, frequency, and other elements of the definition from a representative sample of practitioners.

For the purposes of this practice analysis, occupational information was obtained from position descriptions in several public service agencies, and a short questionnaire completed by a small number of practitioners in different practice areas. The questionnaire was anonymously and voluntarily responded by 11 psychologists who provided information on the following topics: practice area, job title, type of agency, qualifications required for the job, task/duties, skills, knowledge required, and annual income. This information was used to supplement data obtained from other sources for the development of the questionnaire used in the practice analysis.

A position description is a formal document that summarizes the functions of a specific job. It includes position title, primary function or general purpose, essential duties and responsibilities, position specifications such as formal training, education, licensures, experience, level of knowledge, skills, and/or abilities, and other special considerations for working conditions (Aamodt, 2004). Archival and current position descriptions used by public service agencies for selection, evaluation, and training of psychologists were reviewed to assure completeness and appropriateness of the practice analysis questionnaire. The following agencies provided copy of the descriptions for psychologist positions: Puerto Rico Department of Health, Puerto Rico Central Office for Personnel Administration, Puerto Rico Police Department, Puerto Rico Department of Education, Puerto Rico Correction and Rehabilitation Department, Puerto Rico Department of Family, Puerto Rico Justice Department, Puerto Rico State Insurance Fund Corporation, Puerto Rico Mental Health and Addiction Services Administration, and the Puerto Rico Electric Power Authority. Appendixes A and B provide a list of job tasks of psychologist position in public service agencies.

### **Practice Analysis of Psychologists in the United States, Canada, and Puerto Rico**

Three practice analyses of licensed psychologists in the U.S. and Canada have been sponsored by the Association of State and Provincial Psychology Boards (ASPPB) as part of its research program on the Examination for Professional Practice in Psychology (EPPP). The EPPP is developed by the ASPPB and used by U.S. and Canada psychology boards for the evaluation of candidates for licensure. In the first practice analysis, an inventory containing three broad areas of practice, 59 responsibilities, and 111 knowledge and technique statements was mailed to 2,994 psychologists. Usable responses were received from 1,585 individuals for a return rate of 53% (Rosenfeld, Shimberg, Thornton, 1983a, b, 1984). The main objectives of the study were to (a) identify the major functions (job dimensions) of licensed psychologists; (b) identify the important knowledge and skills needed by licensed psychologists at the time of initial licensure; and (c) establish the linkages between the major dimensions of the psychologist's job and the knowledge and skills needed to perform in a safe and effective manner (Rosenfeld, Thornton, & Shimberg, 1983b). Participants of the study were predominantly Caucasian (95.7 %), male (82.0 %), doctoral level licensed psychologists, with a median age of 48.7 years, practicing in a variety of areas notably clinical, counseling, school, industrial-organizational, and educational psychology in a wide range of work settings. Results indicated that the list of responsibilities represented functions common to a high proportion of licensed psychologists. Authors also indicated a common set of functions or job structure characterized by four factors (e.g., research and measurement, intervention, organizational applications, and assessment) with significant linkages to 38 knowledge and techniques frequently applied by licensed psychologists. This study showed that psychologists shared many common responsibilities and used many of the same knowledge and techniques in their work regardless of their area of practice.

For the second practice analysis, 7,500 psychologists were required to (a) provide demographic and professional information; (b) rate four professional roles, 39 responsibilities,

and eight content areas on importance, time/frequency, and criticality; and (c) rate 66 knowledge statements on level of usage, point of acquisition, and frequency. The final return rate for the survey was 60% (Greenberg, Smith, & Muenzen, 1996; Smith & Greenberg, 1998). An update study of the practice analysis was conducted to review and refine the test specifications for the EPPP. The survey was mailed to 1,110 individuals and required participants to provide demographic and professional information and ratings on professional roles, responsibilities, content areas, and knowledge statements. The final return rate was 39% (Greenberg & Jesuitus, 2003).

Participants of the study were predominantly Caucasian, female, doctoral level licensed psychologists, identifying their primary theoretical orientation as cognitive-behavioral or behavioral, practicing in a variety of areas notably clinical, counseling, school, and industrial-organizational in diverse work settings. Although all four roles (e.g., direct service, outreach and consultation, academic preparation and professional development, and research and evaluation) were rated as moderately to highly critical to the protection of the patient/public, the direct service role was rated most important to the practice of the respondents and most critical to the protection of the public from harm. Respondents rated nearly all the responsibilities as moderately to highly critical to the protection of the public from harm indicating a high degree of consensus regardless of their area of practice. Also, respondents rated the responsibilities associated with the direct service role as most important to their practice, most frequently performed, and most critical to the protection of the public from harm.

All content areas were rated moderately to highly critical to the protection of the public from harm, regardless of the respondents' area of practice. The treatment/intervention and ethical/legal/professional issues content areas were rated most important to the practice of respondents and most critical to the protection of public from harm. Authors indicated that 85% of participants used 51 of the 66 knowledge statements

either at the recognition/recall or the apply/interpret/integrate level. Results also indicated that 43 of the 66 knowledge statements were rated moderately to highly critical to the protection of the public from harm. Ratings of the knowledge statements indicated a high degree of similarity among practitioners from different practice areas. Results of the practice analysis provided a description of contemporary practice of psychology in the United States and Canada and identified long-range changes occurring in the profession including the delivery of healthcare services, knowledge and skills, employment opportunities, client base, and gender base of the profession.

The first practice analysis of psychologists in Puerto Rico was conducted by Cirino and Magriñá (1987) to determine the content areas for the licensure examination. The questionnaire required demographic information and importance and frequency of usage ratings for 106 job-related tasks and 20 knowledge items respectively. The questionnaire was mailed to a sample of 160 individuals, from a universe of 400 psychologists. Usable responses were received from 101 individuals for a return rate of 63% of the selected sample, equivalent to 25% of the universe. Participants of the study were psychologists holding master's (65%) or doctoral (26%) level degrees, with over seven years of job experience, a median age of 48.7 years, practicing in a variety of areas notably clinical, industrial-organizational, school, social-community, and academic/research psychology in a wide range of work settings. Authors did not gathered information on sex and age of participants. Results indicated patterns of mobility and combinations among different practice areas. For example, individuals who self-identified as trained in school psychology or industrial-organizational tended to identify clinical psychology as current area of practice, whereas individuals who self-identified as trained in clinical psychology tended to identify school psychology as current area of practice. Moreover, 80% of individuals self-identified as clinical psychologists reported up to two additional areas of psychology practice.



Data on employment setting showed that individuals who self-identified as clinical psychologists work as school psychologists and vice versa. The most and least important tasks were ranked according to participating psychologists' practice areas indicating different task patterns. Results showed practice similarities between clinical and school psychology practitioners and industrial-organizational and social-community psychology practitioners. Clinical and school psychology practitioners were also found to share similar knowledge in their practice. Authors also indicated a common set of functions characterized by seven factors (e.g., measurement and assessment, clinical, psychometrics, research, organizational, school, and training) and six knowledge areas frequently applied by practicing psychologists. This study showed that, with the exception of two areas, psychology practice areas in Puerto Rico do not seem to share common responsibilities nor use the same knowledge and techniques in their application.

According to Knapp and Knapp (1995; page 111), most response rates for practice analysis surveys range from 25% to 35% with rates in the range of 50% to 60% considered to be excellent. Response rates reported in mail surveys conducted with Hispanic psychologists (e.g., Puerto Rican) generally range from 19% to 50%. For example, Mendez (2000) reported a 19% return rate in a survey of 400 psychologists exploring their experience treating dissociative disorders. Maldonado and Rivera (2002) explored the vocational interests and satisfaction of 956 psychologists reporting a 26% response rate. Twenty-eight percent of 1,198 psychologists participated in a study exploring the use of humor in psychotherapy (Pappaterra, 1996). A 46% response rate was reported in a survey of 131 psychology professionals regarding access to services and ethical aspects in psychotherapy (Carrion, 2003). Of 220 psychologists, 50% participated in a study about use of corporal touch in psychotherapy (Toro, 2005). Maldonado (2005) reported a 50% response rate in a survey of 1,200 professionals regarding occupational stress and coping among Hispanic psychologists.

According to the descriptions of these samples, the typical participant on mail surveys could be described as a middle age female doctoral level clinical psychologist.

## Method

### Participants

Data from the Puerto Rico Department of Health indicated that by May 2009 there were 2,551 licensed psychologists (PRDOH, nd). Of these, 79 resided in a country other than Puerto Rico; therefore they were not part of this study. Three psychologists, included in the directory, were deceased at the time of conducting the study. Research survey packets were sent to 2,469 licensed psychologists with residence in Puerto Rico. Of these, 23.5% ( $n = 581$ ) were males and 76.4% ( $n = 1,886$ ) were females. Two individuals did not provide information on gender. In terms of the region of residence, 45.5% ( $n = 1,123$ ) resided in the Metropolitan Area, 12.8% ( $n = 316$ ) in the Caguas Area, 10.7% ( $n = 264$ ) in the Bayamón Area, 10.5% ( $n = 259$ ) in the Ponce Area, 8.7% ( $n = 214$ ) in the Arecibo Area, 6.6% ( $n = 162$ ) in the Mayagüez Area, 4% ( $n = 99$ ) in the Aguadilla Area, and 1.3% ( $n = 31$ ) in the Fajardo Area. One individual did not provide information on region of residence. Fifty-two percent ( $n = 1,283$ ) reported a master's degree and 47.8% ( $n = 1,179$ ) a doctoral degree in psychology. Seven individuals did not provide information on degree in psychology.

### Determination of Return Rate

According to Dillman (1978, 1983), the response rate is calculated as the percentage of contacts with eligible respondents that resulted in completed questionnaires. This method allows for the exclusion of unmade and non-eligible contacts. Of the 2,469 packets mailed, 128 were returned as undeliverable and 20 were unusable, thus reducing the number of potential eligible respondents to 2,321. Usable surveys were received from 470 participants for an overall return rate of 20.25%. According to Knapp & Knapp (1995) the response rates for most practice analysis surveys fall in the range of 20% to 35%. The following equation was used to determine the survey response rate.

$$\text{Response rate} = \frac{[470] \text{ number returned}}{[2,469] \text{ number in sample} - ([20] \text{ non-eligible} + [128] \text{ non-reachable})} \times 100$$

The following information on the demographic and professional characteristics of the respondents was derived from the responses to Section 5 of the Survey. Seventy-three percent ( $n = 343$ ) of the 470 licensed psychologists who participated in the study were females. Most respondents resided in the Metropolitan Area (47%;  $n = 221$ ) and reported a doctoral degree (61%;  $n = 286$ ) as their highest level of education in psychology. The regional distribution of participants in this study resembled the distribution of licensed psychologists according to the Puerto Rico Department of Health's directory as of May 2009. Table 1 provides a comparison between the universe and study participants.

Table 1 Gender, Region of Residence, and Highest Level of Education in Psychology for the Universe and the sample of Respondents

Characteristic	Universe		Sample	
	<i>n</i>	%	<i>n</i>	%
Gender	2,467		470	
Male	581	23.5	127	27.0
Female	1,886	76.4	343	73.0
Region of Residence	2,468		463	
Arecibo Area	214	8.7	30	6.4
Bayamón Area	264	10.7	50	10.6
Caguas Area	316	12.8	62	13.2
Mayagüez Area	162	6.6	36	7.7
Aguadilla Area	99	4.0	11	2.3
Ponce Area	259	10.5	47	10.0
Metropolitan Area	1,123	45.5	221	47.0
Fajardo Area	31	1.3	6	1.3
Highest Level of Education in Psychology	2,462		470	
Bachelor's degree	---	---	2	.4
Master's degree	1,283	52.0	182	38.7
Doctoral degree	1,179	47.8	286	60.9

Notes: In the universe column, two individuals did not provide information on gender, one did not provide information on region of residence, and seven individuals did not provide information on degree in psychology. In the sample column, seven individuals did not provide information on region of residence.

Of those trained at the doctoral level, 36% ( $n = 171$ ) had earned a doctorate in philosophy (PhD), 24% ( $n = 112$ ) a doctorate in psychology (PsyD), and .6% ( $n = 3$ ) a doctorate in education (EdD). The average number of years of experience as a psychologist was 11.8 with a standard deviation of 10.0, a median of 9.0, and a range from 5 to 55 years ( $n = 468$ ). The area of clinical psychology was indicated by 49% ( $n = 232$ ) of the total sample of respondents as their major area of training. As shown in Table 2, 70% of the respondents reported holding a doctoral degree in clinical psychology, whereas 35% hold a master's degree in counseling psychology and 24% a master's degree in school psychology.

Table 2 Major Area of Training in Psychology by Academic Level

Major Area of Training	Academic Level				Total
	Master's		Doctoral		
	n	%	n	%	
Clinical	31	17.3	199	69.8	232
Counseling	62	34.6	12	4.2	75
Social-Community	3	1.7	10	3.5	13
School	42	23.5	9	3.2	51
Research	2	1.1	9	3.2	11
Industrial-Organizational	32	17.9	20	7.0	52
General	1	.6	10	3.5	11
Educational	0	0	2	.7	2
Experimental	0	0	1	.4	1
School & Research	1	.6	0	0	1
Counseling & Clinical	1	.6	1	.4	
Counseling & General	0	0	3	1.1	3
Counseling & School	3	1.7	1	.4	4
I/O- Clinical	0	0	2	.7	2
Clinical-School	1	.6	2	.7	3
Clinical-General	0	0	2	.7	2
Clinical-Social	0	0	2	.7	2
Total	179	100	285	100	467

Note: Three individuals did not provide information training area.

Forty-three percent ( $n = 203$ ) of the total sample of respondents indicated clinical psychology as their major area of practice. According to Table 3, 66% of the doctoral level psychologists reported clinical psychology as their major area of practice, whereas 36% and 25% of the master's level psychologists reported school and counseling psychology as their major area of practice respectively.

Fifty respondents (11%) indicated that they had participated in a postdoctoral training program. Areas of post doctoral training indicated by the respondents were: sex therapy/sexual abuse, clinical neuropsychology, forensic psychology, special education, marital/family therapy, substance abuse/addiction, geriatric/geropsychology, health psychology, hypnosis, public policy in education, constructivist learning model, gifted children/child psychology, psychological measurement, community mental health, and developmental psychology. The most frequently reported theoretical orientation was cognitive-behavioral psychology (53%;  $n = 251$ ) (see Table 4).

Table 3 Major Area of Practice in Psychology by Academic Level

Major Area of Practice	Academic Level				Total
	Master's		Doctoral		
	n	%	n	%	
Clinical	27	18.5	175	65.5	203
Counseling	37	25.3	11	4.1	49
Social-Community	2	1.4	6	2.2	8
School	53	36.3	8	3.0	61
Research	3	2.1	16	6.0	19
Industrial-Organizational	11	7.5	17	6.4	28
General	3	2.1	9	3.4	13
Educational	0	0	1	.4	1
Forensic	1	.7	3	1.1	4
Experimental	0	0	1	.4	1
Neuropsychology	0	0	4	1.5	4
Rehabilitation	0	0	1	.4	1
Counseling & Clinical	0	0	2	.7	2
Counseling & School	3	2.1	2	.7	5
Clinical-School	2	1.4	6	2.2	8
I/O- clinical	2	1.4	1	.4	3
I/O-general	0	0	1	.4	1
Research-Sport	0	0	1	.4	1
Counseling-I/O-Research	0	0	1	.4	1
Clinical-School-Social	1	.7	0	0	1
Counseling-School-Social	1	.7	0	0	1
Total	146	100	267	100	416

Notes: Ten individuals did not provide information on area of practice. Forty-four indicated not currently practicing the profession (e.g., unemployed, recently retired).

Table 4 Theoretical Orientation in Psychology

Theoretical Orientation	<i>n</i>	%
Cognitive-behavioral	251	53.4
Existential-humanistic	35	7.4
Eclectic-integrative	34	7.2
Psychodynamic	25	5.3
Systemic	25	5.3
Cognitive-behavioral/humanistic/other	18	3.8
Cognitive-behavioral/other	13	2.8
Behavioral	12	2.6
Interpersonal	10	2.1
Social learning	8	1.7
Existential-humanistic/other	8	1.7
Bio-psycho-social	3	.6
Social construction	2	.4
Neuropsychology	2	.4
Rational emotive	1	.2
Critical pedagogy	1	.2
Holistic-spiritual	1	.2
Multimodal	1	.2
Interpersonal- Systemic	1	.2
Psychodynamic-Systemic	1	.2
Pragmatic	1	.2
Hypnosis-behavioral	1	.2

Note: Sixteen individuals did not provide information on theoretical orientation.

In terms of the number of employment positions held by the respondents, 47% ( $n = 219$ ) hold a single employment, 30% ( $n = 142$ ) hold two employments, and 14% ( $n = 65$ ) hold three or more employments. About 6% ( $n = 29$ ) are not employed in a psychology position, 2% ( $n = 9$ ) are unemployed, and 1% ( $n = 6$ ) are recently retired. According to Table 5, a higher number of female psychologists in comparison to male psychologists tend to hold two or more employment positions. When compared by academic degrees, half of the master's level psychologists hold one employment position whereas doctoral level psychologists tend to hold two or more employment positions (see Table 6).



Table 5 Number of Employment Positions Held by Male and Female Respondents

Number of Employments	Gender				Total
	Females		Males		
	n	%	n	%	
One employment	160	46.6	59	46.5	219
Two employment	93	27.1	49	38.6	142
Three or more employments	55	16.0	10	7.9	65
Doesn't work as psychologist	24	7.0	5	3.9	29
Unemployment	7	2.0	2	1.6	9
Retired	4	1.2	2	1.6	6
	343	100	127	100	470

Table 6 Number of Employment Positions Held by Master's and Doctoral Level Respondents

Number of Employments	Academic Level				Total
	Master's		Doctoral		
	n	%	n	%	
One employment	93	51.4	123	43.0	219
Two employment	49	27.1	93	32.5	142
Three or more employments	9	5.0	56	19.6	65
Doesn't work as psychologist	21	11.6	8	2.8	29
Unemployment	7	3.9	2	.7	9
Retired	2	1.1	4	1.4	6
	181	100	286	100	470

Forty-one percent ( $n = 193$ ) of the respondents indicated that their primary employment setting fell within the general category of human service settings (e.g., independent practice, public mental health center, group psychological practice, VA hospital), whereas 16% ( $n = 76$ ) indicated an institution of higher education (e.g., psychology department, student and faculty services, other academic department, research center), 15% ( $n = 70$ ) indicated an educational institution(k-12)/school system (e.g., vocational or special education, elementary or secondary school), and 16% ( $n = 75$ ) indicated some other employment setting (e.g., government agency, consulting firm). The pattern of secondary employment settings was similar to that of primary employment settings; that is, 25% ( $n = 115$ ) of the respondents indicated that their secondary employment setting fell within the general category of human service settings (e.g., independent practice, group psychological practice), 13% ( $n = 59$ ) indicated an institution of higher education (e.g.,

psychology department, other academic department), 6% ( $n = 27$ ) indicated an educational institution(k-12)/school system (e.g., elementary or secondary school, vocational or special education), and 6.4% ( $n = 30$ ) indicating some other employment setting (e.g., consulting firm) (see Appendix C).

Master's (43%) and doctoral (49%) level psychologists indicated that their primary employment setting fell within the general category of human service settings followed by an educational institution(k-12)/school system for master's level (33%) and an institution of higher education for doctoral (25%) level respondents. The pattern of secondary employment settings was similar to that of primary employment settings (see Table 7).

Table 7 Primary and Secondary Employment Settings of Master's and Doctoral Level Respondents

Employment Setting	Master's				Doctoral			
	Primary ( $n = 147$ )		Secondary ( $n = 68$ )		Primary ( $n = 264$ )		Secondary ( $n = 163$ )	
	n	%	n	%	n	%	n	%
Institutions of higher education	7	4.8	9	13.2	67	25.4	50	30.7
Human service settings	63	42.9	37	54.4	130	49.2	78	47.9
Educational institution(k-12) school systems	49	33.3	13	19.1	20	7.6	14	8.6
Other employment settings	28	19.0	9	13.2	47	17.8	21	12.9

Respondents were asked to indicate three areas of expertise from a list of 21 areas. They were allowed to combine among the alternatives and to mention any other not included in the list. The respondents indicated psychotherapy (55%;  $n = 257$ ), assessment and diagnosis (48%;  $n = 226$ ), and children and adolescents (45%;  $n = 212$ ) as three leading areas of expertise from a list including 40 different areas (see Appendix D). One hundred and sixty respondents (34%) indicated having professional degrees in areas other than psychology. Of this group, 81% ( $n = 130$ ) of the respondents earned other professional degree prior to their training in psychology, whereas 19% ( $n = 30$ ) earned professional degrees after their training in psychology. Prior to their training in psychology, the respondents were most likely to have

earned professional degrees in such diverse other areas as bachelor's or master's in education, professional counseling, social work, and business administration (see Appendix E).

Participants were asked to rate their satisfaction with their current job in psychology on a scale from 1 (very unsatisfied) to 6 (very satisfied). Four hundred and ten participants responded to this item. The average score in this scale was 4.97 ( $SD = 1.1$ ) suggesting a high degree of satisfaction. Sixty-three percent ( $n = 298$ ) rated this item between 5 and 6 whereas 21% ( $n = 97$ ) rated this item between 3 and 4 or moderately satisfied with their job in psychology. Results of an independent samples  $t$ -test showed that male psychologists ( $n = 115$ ) were slightly more satisfied with their current job in psychology ( $M = 5.2$ ,  $SD = 1.1$ ) than female psychologists ( $n = 295$ ) ( $M = 4.9$ ,  $SD = 1.2$ ),  $t(408) = 2.4$ ,  $p = .02$  (two-tailed) (effect size  $r = .12$ ). The effect size index for the  $t$  test result was obtained using the following procedure (Rosnow & Rosenthal, 1993, p. 262).

$$\text{Effect size } r = \sqrt{\frac{t^2}{t^2 + df}} = \sqrt{\frac{2.43^2}{2.43^2 + 408}} = .12$$

Participants were asked to rate on a scale from 1 (very unsatisfied) to 6 (very satisfied) their satisfaction with their career in psychology. Four hundred and forty-three participants responded to this item. The average score in this scale was 5.2 with a standard deviation of 1.1 suggesting a high degree of satisfaction. Seventy-five percent ( $n = 352$ ) rated this item between 5 and 6 whereas 17% ( $n = 79$ ) rated this item between 3 and 4 or moderately satisfied with their career in psychology. No statistically significant differences were found between males ( $n = 121$ ) ( $M = 5.27$ ,  $SD = 1.0$ ) and female psychologists ( $n = 322$ ) ( $M = 5.1$ ,  $SD = 1.1$ ) regarding the degree of satisfaction with their career in psychology,  $t(441) = 1.5$ , ns.

In terms of the less recently and recently licensed respondents, 62% ( $n = 291$ ) received a full license to practice psychology between 1984 and 2003 whereas 38% ( $n = 177$ ) received a full license to practice psychology between 2004 and 2009. Three hundred and ninety-two

respondents (83%) considered themselves to be health service providers in psychology. Among the respondents who self-described as health service provider, 53% ( $n = 207$ ) reported clinical psychology as their major area of training, 17% ( $n = 66$ ) counseling psychology, 12% ( $n = 46$ ) school psychology, 3% ( $n = 10$ ) social-community psychology, 2% ( $n = 8$ ) academic-research psychology, 5% ( $n = 21$ ), 2% ( $n = 8$ ) general psychology, and .3% ( $n = 1$ ) educational psychology. Seventeen respondents who described themselves as health service provider reported several combinations of major areas of training. Inspection of Table 8 shows that more than half of respondents in each area of training considered themselves to be health service provider in psychology.

Table 8 Self-Described Health Service Provider Respondents and Major Area of Training in Psychology

Major Area of Training	n	%	Total
Clinical	207	97.2	213
Counseling	66	97.1	68
School	46	97.9	47
Industrial-organizational	21	52.5	40
Social-community	10	83.3	12
Academic-research	8	88.9	9
General	8	80.0	10
Counseling & School	4	100	4
Counseling & General	3	100	3
Clinical & School	2	66.7	3
General & Clinical	2	100	2
Clinical & Social-Community	2	100	2
Industrial-Org & Clinical	2	100	2
General & Clinical	2	100	2
Clinical & Social-Community	2	100	2
Educational	1	100	1
Counseling & Clinical	1	100	1
School & Academic-research	1	100	1

Note: Three respondents did not provide information on training area. Forty-two did not respond to the health service provider item.

In terms of the gross annual income for the year 2008 ( $M = 45$ ;  $Mdn = 40$ ), sixty-three respondents (13.4%) indicated an income of less than \$19,999, sixty-one (13%) indicated an income of \$75,000 or more, and forty-seven respondents (10%) indicated an income of \$35,000-39,999. About 22% of the male respondents reported an income of \$75,000 or more whereas within female respondents 18% indicated an income of less than \$19,999 (see Table 9).

Table 10 shows that within master's level ( $M = 36$ ;  $Mdn = 39$ ) respondents, 20% reported an income of less than \$19,999 within doctoral level ( $M = 51$ ;  $Mdn = 52$ ) respondents 21% reported an income of \$75,000 or more.

Table 9 Gross Annual Income in 2008 by Gender

Income Category	Total ( $n = 446$ )		Males ( $n = 121$ )		Females ( $n = 325$ )	
	$n$	%	$n$	%	$n$	%
Less than \$19,999	63	13.4	6	5.0	57	17.5
\$20,000-\$24,999	27	5.7	7	5.8	20	6.2
\$25,000-\$29,999	32	6.8	4	3.3	28	8.6
\$30,000-\$34,999	29	6.2	8	6.6	21	6.5
\$35,000-\$39,999	47	10.0	12	9.9	35	10.8
\$40,000-\$44,999	30	6.4	8	6.6	22	6.8
\$45,000-\$49,999	36	7.7	7	5.8	29	8.9
\$50,000-\$54,999	40	8.5	13	10.7	27	8.3
\$55,000-\$59,999	25	5.3	9	7.4	16	4.9
\$60,000-\$64,999	21	4.5	7	5.8	14	4.3
\$65,000-\$69,999	14	3.0	5	4.1	9	2.8
\$70,000-\$74,999	21	4.5	8	6.6	13	4.0
\$75,000 or more	61	13.0	27	22.3	34	10.5

Note: Twenty four respondents did not provide information on income.

Table 10 Gross Annual Income in 2008 by Academic Level

Income Category	Master's (n = 175)		Doctoral (n = 268)	
	<i>n</i>	%	<i>n</i>	%
Less than \$19,999	35	20.0	27	10.1
\$20,000-\$24,999	16	9.1	11	4.1
\$25,000-\$29,999	19	10.9	13	4.9
\$30,000-\$34,999	15	8.6	14	5.2
\$35,000-\$39,999	26	14.9	21	7.8
\$40,000-\$44,999	19	10.9	11	4.1
\$45,000-\$49,999	14	8.0	22	8.2
\$50,000-\$54,999	12	6.9	27	10.1
\$55,000-\$59,999	4	2.3	21	7.8
\$60,000-\$64,999	5	2.9	16	6.0
\$65,000-\$69,999	1	.6	13	4.9
\$70,000-\$74,999	4	2.3	17	6.3
\$75,000 or more	5	2.9	55	20.5

In terms of respondent's opinions about legal regulation and entry level to practice, 94% ( $n = 442$ ) of the respondents considered that the profession of psychology should continue to be regulated by law. More than half of the respondents ( $n = 247$ ; 53%) considered the doctorate as the academic level necessary for admission to the licensing exam and entry level degree for professional practice of psychology in Puerto Rico. About an equal proportion of male and female respondents considered the doctorate as the entry level degree for professional practice with about 45% of the female respondents indicating the master's degree as the entry level degree for professional practice (see Table11).

Table 11 Opinions of Male and Female Psychologists about the Entry Level Degree for Professional Practice in Puerto Rico

Entry Level Degree	Gender				Total
	Females		Males		
	n	%	n	%	
Master's	131	40.7	46	36.8	177
Doctorate	176	54.7	71	56.8	247
Both	15	4.7	8	6.4	23
	322	100	125	100	447

When compared by academic level, more than 70% of master's and doctoral level respondents indicated the master's or the doctorate as the entry level degree for professional practice respectively with 20% of the master's level psychologists indicating the doctorate as the entry level degree (see Table 12).

Table 12 Opinions of Master's and Doctoral Level Psychologists about the Entry Level Degree for Professional Practice in Puerto Rico

Entry Level Degree	Academic Level				Total
	Master's		Doctoral		
	n	%	n	%	
Master's	126	73.7	49	17.9	175
Doctorate	34	19.9	212	77.7	246
Both	11	6.4	12	4.4	23
	171	100	273	100	444

## Instrument

The questionnaire developed for this practice analysis was based on information from different sources including job descriptions, information provided by practitioners about their activities and responsibilities, job related tasks and knowledge areas assessed by Cirino and Magriñá (1987), graduate psychology programs descriptions, and practice analysis questionnaires used by professional psychology organizations (e.g., Association of State and Provincial Psychology Boards) (see Appendix F). A representative group of subject-matter experts from different psychology practice areas and experience in test development and measurement were asked to review the survey questionnaire and provide feedback on the clarity of wording, instructions, layout, ease of use, comprehensiveness of content coverage, and amount of time needed to complete it. Participants responded to a survey containing six sections addressing their practice experiences for the past year. Ratings scales were used to collect data on the roles and responsibilities performed by the participants and the content areas and knowledge required for practice. The participants were asked to make ratings about their own practice and the profession in general.

The first section asked the participants to rate four different roles in terms of the percentage of time spent (time estimates must add to 100%) and the importance of performing the role to promote client/patient/public wellbeing (Not important [0] to Very important [3]). The second section pertains to information about the responsibilities performed in the practice of psychology according to four different groups of activities. These groups of activities or roles include the following: Psychological services; Consultation, outreach, and policy making; Academic preparation and professional development; and Research, evaluation, and scholarship. Using a four-point scale psychologists were asked to rate the responsibilities in terms of frequency (Never [0] to Very frequently [3]) and importance of performing the role to promote client/patient/public wellbeing (Not important [0] to Very important [3]).



The third section was designed to elicit information about categories of knowledge used by psychologists in practice. For each of the eight content areas, respondents used a 4 point scale to rate how frequently they have called upon knowledge from a particular area in their practice (Never [0] to Very frequently [3]) and how important is the content area to promote client/patient/public wellbeing (Not important [0] to Very important [3]). In the fourth section the participants were asked about the knowledge that is needed to perform responsibilities. Knowledge statements were organized within eight content areas (viz., biological, cognitive-affective, and social-multicultural bases of behavior, growth and lifespan development, assessment and diagnosis, treatment, intervention, and prevention, research methods and statistics, and ethical, legal, and professional issues). The participants were asked to provide ratings about the importance of having this body of knowledge to promote client/patient/public wellbeing (Not important [0] to Very important [3]) and the level of usage (Do not have the knowledge [0] to Analyze/integrate the knowledge [3]).

The fifth section was designed to elicit demographic and professional information about the respondents (e.g., years of experience, level of education, area of training, area of practice). Participants used a 6-point scale to rate how satisfied they feel with their career in psychology (Very dissatisfied [1] to [6] Very satisfied). In addition, respondents used a 6-point scale to rate how satisfied they feel with their current job in psychology (Very dissatisfied [1] to [6] Very satisfied). Finally, the sixth section solicited the participants to comment about professional development, legal regulation of the psychology profession in Puerto Rico, future developments, and professional training.

### **Procedure**

In order to obtain respondents' cooperation, maximize the return of accurately completed questionnaires, and attain a usable response rate, the mail survey procedure was conducted following the guidelines and suggestions found in Dillman (1978, 1983), Hackett (1981), Knapp and Knapp (1995), Raymond (2005), Vaux (1996), and Weathers et al. (1993). A

directory containing names and postal addresses of all licensed psychologists in Puerto Rico was purchased and received on May 29, 2009 from the Puerto Rico Department of Health. A one-page cover letter signed by the researchers and addressed to the participants was prepared explaining the purpose of the study, requesting their participation, stating the anonymity and confidentiality of individual responses, explaining participation consent, and how to contact researchers for questions or comments (see Appendix G). A letter printed on official stationary of PRCHE and signed by Dr. Jaime Calderón Soto, Coordinator of the Center for Research and Documentation on Puerto Rican Higher Education was prepared encouraging participation and thanking respondents for their support (see Appendix H).

The survey questionnaire was designed as a booklet. Each booklet had a number printed on the upper right-hand corner that was used for mail tracking purposes only in order to avoid sending follow-up reminders unnecessarily. The names of the participants did not appear anywhere on the survey. A master list of numbers and participants' names was kept separate from survey results and only the researchers had access to the list. The list of names and corresponding numbers was locked in a private file cabinet and destroyed at the completion of the study. Only those who did not return the survey received reminder postcards. This procedure helped to monitor the level of return rate while protecting participants' anonymity. Results were not attached to participant names.

A pre-survey postcard (4" x 6") was sent on August 15, 2009 to potential survey participants communicating the main purposes of the study and inviting their participation in the data collection efforts. This initial contact with potential participants allowed to determining the number of non-reachable individuals due to incomplete or outdated addresses (see Appendix I). On October 13, 2009, the survey packet consisting of cover letters, the booklet, and a stamped, self-addressed return envelope was mailed out unfolded in a manila envelope (9" x 12"). A follow-up postcard (4" x 6") was mailed on November 10, 2009 to all participants whose survey packet had not been received, reminding them to

complete the instruments and return them if they had not yet done so, thanking them if they had, and providing them with a means for obtaining an additional packet if necessary (see Appendix J). A second reminder postcard was mailed on December 2, 2009. An announcement of the study was published in the Puerto Rico Psychology Association Newsletter (May 2009, 32 #2; page 11). An electronic version of the survey was developed allowing psychologists the opportunity to participate electronically. Additional follow-up or participation reminders were provided during the Annual Convention of the Puerto Rico Psychology Association and through electronic professional forums and mailing list servers. The data collection process ended on March 2010.

Participants' consent to participate in this study was implied by their filling out and returning the survey packet. Participants did not receive monetary compensation for their time. Several gift certificates (e.g., applicable to continuing education courses) were raffled among respondents in appreciation for their time and consideration in responding to the survey (see Appendix K).

### **Statistical Analysis**

The Statistical Package for the Social Sciences for Windows version 16 (SPSS 16; 2007) was used for all statistical analysis. Descriptive statistics were used to summarize quantitative data. Independent samples *t*-test analyses were conducted to discern differences between male and female respondents in job and career satisfaction ratings.

The sample was divided in two subgroups: recently licensed psychologist and less recently licensed psychologists. The subgroup of licensed psychologists at or near the entry level of the profession (viz. recently licensed psychologists) was operationally defined as having been licensed in 2004 or after (e.g., within five years from the date of this study, 2004-2009). Less recently licensed psychologists were operationally defined as initially receiving license to practice psychology before 2004 (e.g., 1984-2003). Preliminary statistical

analyses were conducted to determine whether the ratings of recently or less recently licensed respondents were sufficiently similar to be combined for subsequent analyses.

The *eta* coefficient was calculated for the level of importance and frequency ratings of roles, responsibilities, and content area of recently or less recently licensed respondents. *Eta* squared provides an estimation of the strength of association by assessing the proportion of the total variability in the dependent variable (interval scale) that can be accounted for by knowing the values of the independent variable (nominal or ordinal scale) (Tabachnick & Fidell, 1996; page 53).

Descriptive statistics were used to analyze level of importance and frequency ratings of roles, responsibilities, and content area as well as level of importance and usage ratings of knowledge statements. In the case of Frequency and Importance rating scales for roles and content area, major areas of practice were identified when a simple majority (i.e., 50% or more) of respondents indicated a rating at least moderately important (i.e., scale points 2 or 3) in the importance scale and at least frequently (i.e., scale points 2 or 3) in the frequency scale, respectively. In the case of percent of Time scale, major areas of practice were identified when a simple majority of respondents indicate devoting at least 50% of their time to the role. In terms of knowledge statements, major areas of practice were identified when a simple majority (i.e., 50% or more) of respondents indicated a level of usage rating at least apply/interpret (i.e., scale points 2 or 3). In terms of Importance of knowledge, major areas of practice were identified when a simple majority (i.e., 50% or more) of respondents indicated a rating at least moderately important (i.e., scale points 2 or 3). Qualitative results were summarized according to unique and common topics identified by respondents.

## Results

This section presents information on the (a) statistical analyses related to the ratings of the respondents as a function of year of licensure; (b) ratings of roles, responsibilities, content areas, and knowledge statements; (c) qualitative comments made by the respondents; and (d) recommendations to inform and refine the content areas of the licensing examination showing the knowledge base required for the various responsibilities psychologists are expected to assume in their professional practice.

### Demographic and Professional Characteristics of Recently and Less Recently Licensed Respondents

As previously described, recently licensed psychologists were operationally defined as having been licensed in 2004 or after, while less recently licensed psychologists were operationally defined as initially receiving a license to practice psychology before 2004. The median year of initial licensure for the recently licensed respondents was 2006 (see Table 13). Recently licensed psychologists represent about 38% of the sample.

Table 13 Median Year of Licensure in Psychology for Recently and Less Recently Licensed Respondents

	Recently licensed (n = 177)	Less recently licensed (n = 291)	Total (n = 468)
Median	2006	1994	2001
Range	2004-2009	1984-2003	1984-2009

Note: Two respondents did not provide information on year of license.

As documented in Table 14, the majority of recent (82%) and less recent (68%) licensees are female, while the number of male recent licensees (18%) is becoming smaller over time.

Table 14 Gender of Recently and Less Recently Licensed Respondents

Gender	Recently licensed (n = 177)		Less recently licensed (n = 291)	
	n	%	n	%
Male	32	18.1	94	32.3
Female	145	81.9	197	67.7

Note: Two respondents did not provide information on year of license.

Table 15 indicates that more than half of recently and less recently licensed respondents had earned a doctoral degree. About 37% of the recently licensed respondents had earned a Doctorate in Psychology (PsyD) whereas 20% had earned a Doctorate in Philosophy (PhD). Among the less recently licensed respondents, 46% had earned a Doctorate in Philosophy (PhD), 16% had earned a Doctorate in Psychology (PsyD), and 1% had earned a Doctorate in Education (EdD).

Table 15 Highest Degree in Psychology for Recently and Less Recently Licensed Respondents

Degree	Recently licensed (n = 177)		Less Recently licensed (n = 291)	
	n	%	n	%
Bachelor's	0	0	2	.7
Master's	77	43.5	105	36.1
Doctoral	100	56.5	184	63.2

Note: Two respondents did not provide information on year of license.

As shown in Table 16, about half of recently ( $n = 87$ ; 49%) and less recently ( $n = 144$ ; 50%) licensed respondents indicated clinical psychology as their major area of training. Among recently licensed respondents the clinical psychology area is followed by counseling psychology ( $n = 33$ ; 19%), industrial-organizational psychology ( $n = 24$ ; 14%), and school psychology ( $n = 22$ ; 12%). Among less recently licensed respondents the clinical psychology area is followed by counseling psychology ( $n = 42$ ; 15%), school psychology ( $n = 29$ ; 10%), and industrial-organizational psychology ( $n = 28$ ; 10%).

Table 16 Major Area of Training of Recently and Less Recently Licensed Respondents

Major Area of Training	Recently licensed (n = 177)		Less Recently licensed (n = 288)	
	n	%	n	%
Clinical	87	49.2	144	50.0
Counseling	33	18.6	42	14.6
School	22	12.4	29	10.1
Industrial-organizational	24	13.5	28	9.7
Social-community	6	3.4	6	2.1
Academic-research	0	0	11	3.8
General	0	0	11	3.8
Industrial-Org & Clinical	1	.6	1	.3
Counseling & School	1	.6	3	1.0
Counseling & General	1	.6	2	.7
Counseling & Clinical	1	.6	1	.3
Clinical & School	1	.6	2	.7
Clinical & Social-Community	0	0	2	.7
Educational	0	0	2	.7
General & Clinical	0	0	2	.7
Experimental	0	0	1	.3
School & Academic-research	0	0	1	.3

Notes: One psychologist trained in clinical psychology and one trained in social-community psychology did not provide information on year of license.

Table 17 shows that in terms of current major area of practice, about 52% ( $n = 79$ ) and 47% ( $n = 123$ ) of the recently and less recently licensed respondents, respectively, indicated clinical psychology as their major area of practice, as might be expected on the basis of the data regarding major area of training (see Table 16). Tables 16 and 17 indicate that, among recently licensed psychologists, fewer respondents currently practice in counseling psychology or Industrial-organizational psychology than were trained in these areas. Among recently licensed psychologists, more respondents currently practice in school psychology than were trained in this area. Among less recently licensed psychologists, fewer respondents currently practice in counseling psychology or Industrial-organizational psychology than were trained in these areas. Among less recently licensed psychologists, more respondents currently practice in school psychology than were trained in this area.

Table 17 Major Practice Area of Recently and Less Recently Licensed Respondents

Major Area of Practice	Recently licensed (n = 153)		Less Recently licensed (n = 261)	
	n	%	n	%
Clinical	79	51.6	123	47.1
School	28	18.3	33	12.6
Counseling	18	11.8	31	11.9
Industrial-organizational	8	5.3	20	7.7
Academic-research	5	3.3	13	5.0
General	2	1.3	11	4.2
Social-community	4	2.6	4	1.5
Clinical & School	3	2.0	5	1.9
Clinical & Industrial-Organizational	0	0	3	1.1
Counseling & Clinical	0	0	2	.8
Counseling & School	2	1.3	3	1.1
Neuropsychology	2	1.3	2	.8
Forensic	0	0	4	1.5
Rehabilitation	0	0	1	.4
Organizational & General	1	.7	0	0
Health	0	0	1	.4
Educational	0	0	1	.4
Experimental	0	0	1	.4
Academic-research & Sport	0	0	1	.4
Counseling-Social-School	0	0	1	.4
Clinical-School-Social	0	0	1	.4
Counseling-I/O-Academic research	1	.7	0	0

Notes: Ten individuals did not provide information on area of practice. Forty-four indicated not currently practicing the profession (e.g., unemployed, recently retired). One psychologist in the clinical psychology area and in academic-research psychology area did not provide information on year of license.

Respondents identified a primary theoretical orientation that best described their approach to professional practice. More than half of recently (61%;  $n = 105$ ) and less recently (52%;  $n = 145$ ) licensed respondents indicated cognitive-behavioral psychology as their theoretical orientation (see Table 18).



Table 18 Theoretical Orientation of Recently and Less Recently Licensed Respondents

Theoretical Orientation	Recently licensed (n = 172)		Less Recently licensed (n = 280)	
	n	%	n	%
Cognitive-behavioral	105	61.0	145	51.8
Existential-humanistic	11	6.4	24	8.6
Eclectic-integrative	8	4.7	26	9.3
Psychodynamic	7	4.1	18	6.4
Systemic	7	4.1	17	6.1
Cognitive-behavioral/humanistic/other	9	5.2	9	3.2
Cognitive-behavioral/other	9	5.2	4	1.4
Behavioral	4	2.3	8	2.9
Interpersonal	2	1.2	8	2.9
Social learning	3	1.7	5	1.8
Existential-humanistic/other	3	1.7	5	1.8
Bio-psycho-social	1	.6	2	.7
Social construction	1	.6	1	.4
Neuropsychology	0	0	2	.7
Rational emotive	1	.6	0	0
Critical pedagogy	0	0	1	.4
Holistic-spiritual	0	0	1	.4
Multimodal	1	.6	0	0
Interpersonal- Systemic	0	0	1	.4
Psychodynamic-Systemic	0	0	1	.4
Pragmatic	0	0	1	.4
Hypnosis-behavioral	0	0	1	.4

Notes: One psychologist reporting cognitive-behavioral psychology and one reporting systemic psychology did not provide information on year of license.

Table 19 documents the number and percent of recently and less recently licensed respondents who participated in any formal postdoctoral training program. Less recently licensed respondents were somewhat more likely to have participated in such a program. The majority of respondents have not done so. Areas of postdoctoral training mentioned by respondents include the following: marital/family therapy, neuropsychology, forensic psychology, clinical hypnosis, health psychology, AIDS/HIV research, geriatric/geropsychology, substance abuse/chemical dependency, and sexual dysfunction/sex therapy.

Table 19 Postdoctoral Training of Recently and Less Recently Licensed Respondents

Postdoctoral Training	Recently licensed (n = 175)		Less recently licensed (n = 287)	
	n	%	n	%
Yes	9	5.1	40	13.7
No	166	93.8	247	84.9

Note: Two respondents did not provide information on year of license.

About one-half of the less recently licensed respondents hold a single employment position. Recently licensed psychologists are more likely to hold more than one employment than are less recently licensed psychologists (see Table 20).

Table 20 Number of Employment Positions Held by Recently and Less Recently Licensed Respondents

Number of Positions	Recently licensed (n = 177)		Less Recently licensed (n = 291)	
	n	%	n	%
One	63	35.6	156	53.6
Two	61	34.5	79	27.1
Three or more	30	16.9	35	12.0
Not working as a psychologist	18	10.2	11	3.8
Unemployed	5	2.8	4	1.4
Recently retired	0	0	6	2.1

Note: Two respondents did not provide information on year of license.

As presented in Table 21, both recently and less recently licensed respondents indicated that their primary employment setting fell within the general category of human service settings (e.g., independent practice). In terms of the secondary employment setting, 59% (n = 61) of recently licensed respondents indicated the category of human service settings.

Table 21 Primary and Secondary Employment Settings of Recently and Less Recently Licensed Respondents

Employment Setting	Recently licensed				Less Recently licensed			
	Primary (n = 152)		Secondary (n = 103)		Primary (n = 260)		Secondary (n = 126)	
	n	%	n	%	n	%	n	%
Institutions of higher education	22	14.5	26	25.2	53	20.4	33	26.2
Human service settings	68	44.7	61	59.2	124	47.7	55	44.4
Educational institution(k-12) school systems	36	23.7	15	14.6	34	13.1	12	9.5
Other employment settings	26	17.1	7	6.8	49	18.8	23	18.3

Notes: Forty-four indicated not currently practicing the profession (e.g., unemployed, recently retired). Two respondents did not provide information on year of license.

As shown in Table 22, 61% of the participants with a non-psychology degree prior to their training in psychology are less recently licensed. Also, 49% of the less recently licensed had a master's degree prior to their training in psychology compared with 35% of the less recently licensed. In terms of non-psychology degrees following to their training in psychology, 67% of the recently licensed have professional certificates while 29% of the less recently licensed have master's degrees or professional certificates.

Table 22 Non-Psychology Professional Academic Degrees Earned by Recently and Less Recently Licensed Respondents

Academic Degrees	Recently licensed				Less Recently licensed			
	Prior to their training in psychology (n = 49; 39%)		Following to their training in psychology (n = 3; 11%)		Prior to their training in psychology (n = 78; 61%)		Following to their training in psychology (n =24; 89%)	
	n	%	n	%	n	%	n	%
Associate	1	2.1	0	0	0	0	1	4.2
Baccalaureate	28	58.3	0	0	34	43.6	3	12.5
Master's	17	35.4	1	33.3	38	48.7	7	29.2
Doctoral	0	0	0	0	0	2.6	6	25.0
1st Professional Certificate	1	2.1	0	0	2	3.8	0	0
Licenciatura	1	2.1	2	66.7	3	3.8	7	29.2
Licenciatura	0	0	0	0	1	1.3	0	0

Note. 1st Professional = MD, JD

Among of the less recently licensed respondents, 24% ( $n = 19$ ) earned a professional degree in education prior to their training in psychology (see Table 23). Appendix L presents data on academic degree and subject area of non-psychology professional studies prior and after training in psychology by academic degree in psychology.

More than half of the recently (88%) and less recently (81%) licensed respondents considered themselves to be health service providers (see Table 24).

Recently and less recently licensed respondents rated their satisfaction with their current job in psychology on a scale from 1 (very unsatisfied) to 6 (very satisfied). One hundred and fifty-four (154) recently licensed psychologists responded to this item. The average score in this scale for the recently licensed respondents was 4.7 ( $SD = 1.2$ ) suggesting a moderate degree of satisfaction. On the other hand, two hundred and fifty-four (254) less recently licensed psychologists responded to this item. The average score in this scale for the less recently licensed respondents was 5.0 ( $SD = 1.0$ ) suggesting a high degree of satisfaction.

The career satisfaction of recently and less recently licensed respondents was assessed by using a rating scale from 1 (very unsatisfied) to 6 (very satisfied). One hundred and seventy-two (172) recently licensed psychologists responded to this item. The average score in this scale for recently licensed respondents was 4.9 ( $SD = 1.2$ ) suggesting a high degree of career satisfaction. Two hundred and sixty-nine (269) less recently licensed psychologists responded to this item. The average score in this scale for the less recently licensed respondents was 5.2 ( $SD = .98$ ) suggesting a high degree of career satisfaction.

The majority of respondents in both groups, recently licensed and less recently licensed, considered that the profession should continue to be regulated by law (see Table 25).



Table 24 Self-Described Health Service Provider Status of Recently and Less Recently Licensed Respondents

Health Service Provider	Recently licensed (n = 170)		Less recently licensed (n = 256)	
	n	%	n	%
Yes	156	88.1	235	80.8
No	14	7.9	21	7.2

Notes: Two respondents did not provide information on year of license. Forty-two did not respond to the item.

Table 25 Opinions of Recently and Less Recently Licensed Respondents about the Legal Regulation of the Profession

Should professional psychology continue regulated by law?	Recently licensed (n = 170)		Less recently licensed (n = 272)	
	n	%	n	%
Yes	169	99.4	271	99.6
No	1	.6	1	.4

Note: Twenty-eight respondents did not answer the item.

Half of the less recently licensed respondents considered the doctorate as the academic level necessary for admission to the licensing exam and entry level degree for professional practice and the other half considered the master's level or a combination of both degrees. More than half of recently licensed respondents considered the doctorate as the academic level necessary for admission to the licensing exam and entry level degree for professional practice of psychology (see Table 26).

Table 26 Opinions of Recently and Less Recently Licensed Respondents about the Entry Level Degree for Professional Practice in Puerto Rico

What degree would be necessary for admittance to the licensing exam and professional practice of psychology in Puerto Rico?	Recently licensed (n = 170)		Less recently licensed (n = 275)	
	n	%	n	%
Master's degree	59	34.7	118	42.9
Doctoral degree	105	61.8	140	50.9
Both degrees	6	3.5	17	6.2

Note: Twenty-five respondents did not answer the item.

Table 27 documents the number and percent of recently ( $M = 36.7$ ;  $Mdn = 34$ ) and less recently ( $M = 50$ ;  $Mdn = 54$ ) licensed respondents gross annual income for 2008. Among the less recently licensed respondents, 19% ( $n = 53$ ) reported an income of \$75,000 or more, 12% ( $n = 34$ ) between \$35,000-39,999, and 11% ( $n = 30$ ) between \$50,000-54,999. Twenty-one percent ( $n = 36$ ) of the recently licensed respondents reported an income of less than \$19,999, 12% ( $n = 20$ ) between 20,000-24,999, and 10% ( $n = 17$ ) between \$40,000-44,999. No information was available from 26 respondents on this item.

Table 27 Gross Annual Income in 2008 of Recently and Less Recently Licensed Respondents

Income Category	Recently licensed ( $n = 168$ )		Less Recently licensed ( $n = 276$ )	
	$n$	%	$n$	%
Less than \$19,999	36	21.4	27	9.8
\$20,000-\$24,999	20	11.9	7	2.5
\$25,000-\$29,999	15	8.9	17	6.2
\$30,000-\$34,999	16	9.5	13	4.7
\$35,000-\$39,999	12	7.1	34	12.3
\$40,000-\$44,999	17	10.1	13	4.7
\$45,000-\$49,999	15	8.9	21	7.6
\$50,000-\$54,999	10	6.0	30	10.9
\$55,000-\$59,999	7	4.2	17	6.2
\$60,000-\$64,999	4	2.4	17	6.2
\$65,000-\$69,999	5	3.0	9	3.3
\$70,000-\$74,999	3	1.8	18	6.5
\$75,000 or more	8	4.8	53	19.2

Note: Twenty four respondents did not provide information on income. Two respondents did not provide information on year of license.

### Results related to the delineations

Preliminary statistical analyses were conducted to determine whether the ratings of recently and less recently licensed respondents were sufficiently similar to be combined for subsequent analyses. Appendix M summarizes the results of the non-parametric statistical analyses conducted on selected ratings of recently and less recently licensed respondents. The eta coefficient was calculated for the Importance and Frequency ratings of respondents

licensed in 2004 or after, and respondents licensed before 2004. Use of this coefficient is appropriate for data in which the dependent variable is measured on interval scale and the independent variable on a nominal or ordinal scale. *Eta squared* can be interpreted as the proportion of the total variability in the dependent variable explained by knowing the values of the independent variable. The measure is asymmetric and does not assume a linear relationship between the variables (Tabachnick & Fidell, 1996).

Evaluation of the statistical analyses supported the conclusion that there were few differences between the ratings obtained from the recent and less recently licensed respondents. Accordingly, the ratings of the recently and less recently licensed respondents have been combined in connection with the documentation of ratings on the roles, responsibilities, and content areas.

### **Process - Based Delineation**

**Roles in the Practice of Psychology.** This section presents the results of the ratings related to the roles previously identified (viz., Psychological services; Consultation, outreach, and policy making; Academic preparation and professional development; and Research, evaluation, and scholarship). Results related to Importance and percent of Time ratings for each role are presented for the total sample and for subsamples of respondents representing major areas of practice and academic level (See Appendix F for a copy of the Questionnaire, including the name and definition of each role.)

As presented in Table 28 for the total sample of respondents, the mean Importance ratings for the four delineated roles range from 2.5 for the Consultation, Outreach, and Policy Making role, to 2.9 for the Psychological Services role, indicating that the roles were rated as moderately - to - very important to the practice of licensed psychologists for promoting client/public wellbeing. The Psychological Services role was rated as very important to the practice with 95% of the ratings at scale point 3.



For the total sample of respondents, the mean percent of Time ratings for these same four roles ranged from 9.9 for Research, Evaluation, and Scholarship, to 59 for Psychological Services, indicating that respondents devote differing amounts of work time to the roles. By far, respondents devote the most work time to the Psychological Services role, the one rated as most important to their practice and promoting client/public wellbeing. Respondents spend no more than about 15% of their time in each of the remaining three roles -- Academic Preparation and Professional Development, Consultation, Outreach, and Policy Making, and Research, Evaluation, and Scholarship. Respondents devote the smallest work time to the Research, Evaluation, and Scholarship role. The magnitude of the standard deviations associated with the mean percent of Time ratings indicated that there is a great deal of variability in the practice patterns of the respondents. Finally, in the area of Other Roles, about 5% of the total number of respondents to this item mentioned that they worked in activities such as training or human resources. In terms of the Importance scale, the respondents rated these activities as important to their practice and promote client/public wellbeing.

Table 28 Descriptive Statistics for Total Sample on Roles: Mean, Standard Deviation, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance; Mean, Standard Deviation, Number of Respondents, and Range for Percent of Time

Role	Importance					% of Time	
	M SD n	Rating Scale Point				M SD n	Range
		0 %	1 %	2 %	3 %		
Psychological Service	2.9 .4 451	1.8	.4	2.9	94.9	59.0 32.9 456	0 - 100
Consultation, Outreach, and Policy Making	2.5 .9 430	6.7	4.2	22.6	66.5	10.6 16.6 456	0 - 100
Academic Preparation and Professional Development	2.6 .8 4.4	6.2	1.6	17.3	74.9	14.7 21.0 455	0 - 100
Research, Evaluation, and Scholarship	2.6 .7 432	4.6	1.6	20.8	72.9	9.9 13.7 457	0 - 80
Other Roles	2.6 .5 21	0	0	38.0	61.9	35.0 35.8 30	0 - 100

Note: rating scale percentages may not add to 100.

Table 29 presents an overview of the similarities and differences in the mean Importance and percent of Time ratings of respondents representing four major areas of practice including Clinical, Counseling, School, and Industrial-Organizational Psychology, (all major areas of practice were selected wherein data were available from a minimum of 25 respondents). In the case of the Importance rating scale, major areas of practice were identified when at least 50% or more of the respondents met a preset criterion; that is they rated the role at least moderately important (i.e., scale points 2 or 3) to promote client/public wellbeing. In the case of the percent of Time scale, major areas of practice were identified when 50% of respondents met preset criterion; that is, they indicated that they devoted at least 50% of their time to the role.

As can be seen in Table 29, the roles' ratings by respondents representing different major areas of practice displayed more similarities than differences among practice areas.

The Importance scale ratings across all major areas of practice were similar in regard to the four roles, when compared using the criteria described previously. Respondents in all major areas of practice showed a high degree of consensus in their ratings of the four roles as important to their practice and promote client/public wellbeing. The percent of Time scale ratings across all major areas of practice showed that respondents were dissimilar in regard to their ratings for the Psychological Services role; that is, respondents in major areas of practice met the preset criterion for the scale, while respondents in one area of practice (industrial-organizational psychology) did not meet the preset criterion of devoting at least 50% of their time to the role. In addition, the percent of Time scale ratings across all major areas of practice show that none of the respondents representing major practice areas devoted at least 50% of their time to any of the remaining three roles -- Consultation, Outreach, and Policy Making, Academic Preparation and Professional Development, and Research, Evaluation, and Scholarship.

As documented in Appendix N, the reliability estimates for ratings for the total sample of respondents and for respondents in the major areas of practice using interclass correlation yielded values ranging from .61 to .99 suggesting from moderate to very high consistency in the ratings.

As presented in Table 30 for the master's level respondents, the mean Importance ratings for the four delineated roles range from 2.5 for three of the four roles to 2.9 for the Psychological Services role, indicating that the roles were rated as moderately - to - very important to the practice of licensed psychologists for promoting client/public wellbeing. The Psychological Services role was rated as very important to the practice with 95% of the ratings at scale point 3.

Table 29 Support on Role Ratings by Respondents in Mayor Areas of Practice for Importance Scale Points 2 and 3, and for At Least 50% of Time

Role	Importance	% of Time
<b>Psychological Services</b> - design or provide psychological services, supervise or manage their delivery, to individuals, couples, families, groups, and/or organizations in a manner consistent with professional and ethical standards, laws, and regulations.	ALL	Not I/O
<b>Consultation, Outreach, and Policy Making</b> - prepare, coordinate, and evaluate educational and training programs for public or organizational audiences; disseminate information or provide expertise to a variety of constituents; and/or participate in the process of policy making, advocacy, and standard setting in a manner consistent with professional and ethical standards, laws, and regulations.	ALL	NONE
<b>Academic Preparation and Professional Development</b> - develop, implement, administer, and evaluate educational programs for psychologists, including teaching, supervision, and curriculum development in a manner consistent with professional and ethical standards, laws, and regulations; engage in continuing education and self-development.	ALL	NONE
<b>Research, Evaluation, and Scholarship</b> - develop and/or participate in any activity to expand or refine knowledge or to improve programs and services in a manner consistent with professional and ethical standards, laws, and regulations	ALL	NONE
<b>Other Roles</b>	Not CL	NONE

Note. CL= Clinical (n=196); CP = Counseling Psychology (n= 48); SC = School (n=58); I/O = Industrial-Organizational (n=26)

For the master's level respondents, the mean percent of Time ratings for these same four roles ranged from 8.6 for Research, Evaluation, and Scholarship, to 62% for Psychological Services. By far, respondents devote the most work time to the Psychological Services role and spend no more than about 11% of their time in the remaining three roles. Respondents devote the smallest work time to the Research, Evaluation, and Scholarship and Academic Preparation and Professional Development roles. The magnitude of the standard deviations associated with the mean percent of Time ratings indicated that there is a great deal of variability in the practice patterns of the respondents.

Table 30 Descriptive Statistics for Master's Level Respondents on Roles: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance: Means, Standard Deviations, Number of Respondents, and Range for Percent of Time

Role	Importance					% of Time	
	M SD n	Rating Scale Point				M SD n	Range
		0 %	1 %	2 %	3 %		
Psychological Services	2.9 .5 175	1.7	1.1	2.3	94.9	61.8 32.8 175	0 - 100
Consultation, Outreach, and Policy Making	2.5 .8 167	6.0	3.0	24.6	66.5	11.4 17.0 175	0 - 95
Academic Preparation and Professional Development	2.5 .9 165	8.5	2.4	22.4	66.7	9.1 14.5 174	0 - 80
Research, Evaluation, and Scholarship	2.5 .8 167	6.0	1.8	24.0	68.3	8.6 11.5 175	0 - 80
Other Roles	1.4 1.4 14	50.0	0	14.3	35.7	43.1 39.0 12	0 - 99

As presented in Table 31 for the doctoral level respondents, the mean Importance ratings for the four delineated roles range from 2.7 for two of the four roles to 2.9 for the Psychological Services role indicating that the roles were rated as moderately - to - very important to the practice of licensed psychologists for promoting client/public wellbeing. The Psychological Services role was rated as very important to the practice with 95% of the ratings at scale point 3 followed by the Academic Preparation and Professional Development role with 80% of the ratings at scale 3.

For the doctoral level respondents, the mean percent of Time ratings for these same four roles ranged from 10% for Outreach and Consultation to 57% for Psychological Services. By far, respondents devote the most work time to the Psychological Services role and spend no more than about 10% of their time in the remaining three roles. Respondents devote the

smallest work time to the Consultation, Outreach and Policy Making and Research, Evaluation, and Scholarship roles. The magnitude of the standard deviations associated with the mean percent of Time ratings indicated that there is a great deal of variability in the practice patterns of the respondents.

Table 31 Descriptive Statistics for Doctoral Level Respondents on Roles: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance: Means, Standard Deviations, Number of Respondents, and Range for Percent of Time

Role	Importance					% of Time	
	M SD n	Rating Scale Point				M SD n	Range
		0 %	1 %	2 %	3 %		
Psychological Services	2.9 .4 273	1.8	0	3.3	94.9	57.1 33.0 278	0 - 100
Consultation, Outreach, and Policy Making	2.5 .9 260	7.3	5.0	21.2	66.5	10.0 16.2 278	0 - 100
Academic Preparation and Professional Development	2.7 .7 266	4.9	1.1	14.3	79.7	18.3 27.4 278	0 - 100
Research, Evaluation, and Scholarship	2.7 .7 262	3.8	1.5	19.1	75.6	10.7 14.9 279	0 - 80
Other Roles	1.3 1.4 18	50.0	0	16.7	33.3	31.1 33.9 17	0 - 97

**Responsibilities in the Practice of Psychology.** This section presents the ratings' results to the 35 responsibilities identified in connection with the four roles in the practice of psychology. Results related to Importance and Frequency ratings are presented for the total sample and master's and doctoral level respondents. In addition, results are presented regarding the degree of relationship between ratings assigned to each role and to the responsibilities associated with each role. (See Appendix F for a copy of the Questionnaire, including the responsibilities identified in connection with each role.)

Table 32 presents the mean of means and the standard error of the means for the Importance and Frequency rating scales for the responsibilities associated with each role. Data are presented for the total sample. The mean of the means for Importance ranges from 2.5 for the 8 responsibilities delineated in association with the Consultation, Outreach, and Policy Making to 2.7 for the 7 and 10 responsibilities delineated in association with the Academic Preparation and Professional Development role and Psychological Services role respectively. The responsibilities associated with the four roles were rated as moderately - to - very important to the practice and promotion of client/public wellbeing.

The Frequency ratings' pattern for the responsibilities within each role appears somewhat dissimilar to that of the Importance ratings. The mean of means for Frequency ranges from 0.7 for responsibilities within the Research, Evaluation, and Scholarship role to 1.6 for responsibilities within the Psychological Services role. The Frequency ratings of responsibilities associated with three roles including, Research, Evaluation, and Scholarship role, Consultation, Outreach, and Policy Making role, and Academic Preparation and Professional Development role indicated that respondents performed these very rarely - to - infrequently. The Frequency ratings of responsibilities associated with the Psychological Services role indicated that respondents performed these with moderate frequency.

Table 32 Mean of Means and Standard Error of Means for Importance and Frequency Ratings for Responsibilities with Roles for the Total Sample

Role	# of Responsibilities	Importance	Frequency
Psychological Services	10	2.7 0.0	1.6 0.0
Consultation, Outreach, and Policy Making	8	2.5 0.0	.8 0.0
Academic Preparation and Professional Development	7	2.7 0.0	1.0 0.0
Research, Evaluation, and Scholarship	10	2.6 0.0	.7 0.0

The overall pattern of ratings for the responsibilities shown in Table 32 seems consistent with the pattern of ratings presented in Table 28, wherein respondents rated each role on Importance and percent of Time. The results show a general consistency in the respondents' ratings of a role's Importance and the associated responsibilities' Importance. Appendix O presents the mean, standard deviation, and number of respondents completing the Importance and Frequency on the 35 responsibilities for the total sample.

The Appendix O documents the wide range of ratings within each role. Within the Psychological Services role, responsibility R4 (Desarrollar procedimientos e instrumentos para la evaluación de características de individuos, grupos, trabajos, organizaciones, instituciones educativas y sociales) was rated lowest in the Frequency scale. Within the same role, R1 (Proveer servicios psicológicos y/o realizar referidos conociendo tipos de evaluación e intervenciones disponibles) and R3 (Usar múltiples métodos para recopilar información de individuos, parejas, familias, grupos y organizaciones con el fin de identificar los problemas o necesidades para evaluación, prevención y planificación de intervención) were rated high in the Importance scale. The mean ratings of the responsibilities within the Psychological Services role indicate that these responsibilities are moderately to very important to the respondents for promoting client/public wellbeing; 6 of 10 are performed at least moderately frequently; and 3 of 10 are performed at least Frequently.

For the Consultation, Outreach, and Policy Making role, the mean rating of the responsibilities indicate that all 8 were rated at least moderately important by respondents. Responsibilities R12 (Preparar, presentar, coordinar y evaluar programas de prevención e intervención temprana para poblaciones en riesgo (p.ej., prevención de abuso de sustancias, VIH-SIDA, prevención de maltrato de ancianos, prevención de violencia escolar o doméstica) and R11 (Preparar, presentar, coordinar y evaluar programas o talleres de promoción de la salud para organizaciones o público en general [p.ej., dejar de fumar, crianza, manejo de coraje, programas informativos sobre servicios o recursos psicológicos en la comunidad]).



were rated high in the Importance scale. On the other hand, the ratings in the Frequency scale for the Consultation, Outreach, and Policy Making role indicate these responsibilities were performed very rarely or infrequently by respondents, with 6 of 8 rating the low value on the scale.

A similar pattern is apparent in the data related to the Academic Preparation and Professional Development role; that is, the mean ratings of the responsibilities indicate that all 7 were rated at least moderately important by respondents. Responsibility R25 (Participar en actividades profesionales de desarrollo personal y de educación continuada diseñadas para aumentar la efectividad personal y profesional, conocimientos y destrezas [p.ej., autocuidado, prevención de síndrome de quemarse por el trabajo]) was rated high on the Importance scale. On the other hand, the ratings in the Frequency scale for the Academic Preparation and Professional Development role indicate that these responsibilities were performed very rarely or infrequently by respondents, with 4 of 7 rated low on the scale.

For the Research, Evaluation, and Scholarship role, the mean of the responsibilities' rating indicate that they are at least moderately important to the respondents for promoting client/public wellbeing. These responsibilities are performed very rarely or infrequently by respondents, with 7 of 10 rated low on the scale.

Table 33 presents the mean of means and the standard error of the means for the Importance and Frequency rating scales for the responsibilities associated with each role for master's level respondents. The mean of means for Importance ranges from 2.5 for the 10 responsibilities delineated in association with the Research, Evaluation, and Scholarship, to 2.7 for the 10 responsibilities delineated in association with the Psychological Services role. The responsibilities associated with the four roles were rated as moderately - to - very important to the practice and promotion of client/public wellbeing.

The mean of means for Frequency ranges from 0.6 for responsibilities within three of the four roles to 1.6 for responsibilities within the Psychological Services role. The Frequency

ratings of responsibilities associated with three roles including, Research, Evaluation, and Scholarship role, Consultation, Outreach, and Policy Making role, and Academic Preparation and Professional Development role indicated that respondents performed these very rarely - to - infrequently. The Frequency ratings of responsibilities associated with the Psychological Services role indicated that respondents performed these with moderate frequency.

Table 33 Mean of Means and Standard Error of Means for Importance and Frequency Ratings for Responsibilities with Roles for the Master's Level Respondents

Role	# of Responsibilities	Importance	Frequency
Psychological Services	10	2.7 .1	1.6 .0
Consultation, Outreach, and Policy Making	8	2.6 .0	.6 .0
Academic Preparation and Professional Development	7	2.6 .0	.6 .0
Research, Evaluation, and Scholarship	10	2.5 .0	.6 .0

Table 34 presents the mean of means and the standard error of the means for the Importance and Frequency rating scales for the responsibilities associated with each role for the doctoral level respondents. The mean of means for Importance ranges from 2.5 for the 8 responsibilities delineated in association with the Consultation, Outreach, and Policy Making, to 2.7 for the 7 and 10 responsibilities delineated in association with the Academic Preparation and Professional Development role and Psychological Services role respectively. The responsibilities associated with the four roles were rated as moderately - to - very important to the practice and promotion of client/public wellbeing.

The mean of means for Frequency ranges from 0.9 for responsibilities within the Consultation, Outreach, and Policy Making role to 1.7 for responsibilities within the Psychological Services role. The Frequency ratings of responsibilities associated with three of the four roles indicated that respondents performed these very rarely - to - infrequently. The Frequency ratings of responsibilities associated with the Psychological Services role indicated that respondents performed these with moderate frequency.

Table 34 Mean of Means and Standard Error of Means for Importance and Frequency Ratings for Responsibilities with Roles for the Doctoral Level Respondents

Role	# of Responsibilities	Importance	Frequency
Psychological Services	10	2.7 .0	1.7 .0
Consultation, Outreach, and Policy Making	8	2.5 .0	.9 .0
Academic Preparation, and Professional Development	7	2.7 .0	1.3 .1
Research, Evaluation, and Scholarship	10	2.6 .0	1.0 .0

### Content - Based Delineation

**Content Areas.** This section presents the ratings' results related to the content areas (viz., Biological, Cognitive-affective, and Social-multicultural bases of behavior, Growth and lifespan development, Assessment and diagnosis, Treatment, intervention, and Prevention, Research methods and statistics, and Ethical, legal, and professional issues). Results related to mean Importance and Frequency ratings for each content area are presented for the total sample and for subsamples of respondents representing different major areas of practice and master's and doctoral level respondents (See Appendix F for a copy of the Questionnaire, including the name and definition of each content area.)

As can be seen in Table 35, the Importance ratings for the eight content areas range from 2.6 for Research Methods and Statistics content area to 2.9 for the remaining content areas, indicating that the content areas range from being moderately - to - very important to the practice of licensed psychologists in promoting the wellbeing of the client/public. About 90% of the ratings for four of the eight of the content areas were at scale point 3. Only one content area, Research Methods and Statistics, had 70% of the ratings at scale point 3.

For the total sample of respondents, the mean Frequency ratings for the content areas range from 1.4 for the Research Methods and Statistics content area to 2.6 for the Cognitive-Affective Bases of Behavior content area indicating that the respondents call upon knowledge from the content areas from infrequently - to - moderately frequently, to moderately - to -

very frequently. Consistent with the Importance ratings previously described, respondents call upon the knowledge from seven of the eight content areas moderately - to - very frequently and the knowledge from Research Methods and Statistics content area, infrequently - to - moderately frequently. In general, ratings from Importance and Frequency scales are indicating that respondents recognized that knowledge associated with a content area could be important for promoting the wellbeing of client/public even if it was not called upon in their own practice (see Table 35).

Table 36 presents an overview of the similarities and differences in the Importance and Frequency ratings for the total sample of respondents representing the different major areas of practice previously described. In the case of the Importance and frequency rating scales, major areas of practice were identified when at least 50% or more of the respondents rated the content area at least moderately important to promote client/public wellbeing (i.e., scale points 2 or 3) and called upon the knowledge from the content area at least moderately frequently (i.e., scale points 2 or 3) respectively.

Table 35 Descriptive Statistics for Total Sample on Content Areas: Mean, Standard Deviation, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance: Mean, Standard Deviation, Number of Respondents, and Percentage of Responses at Each Scale Point for Frequency

Content Areas	Importance					Frequency				
	M SD n	Rating Scale Point				M SD n	Rating Scale Point			
		0 %	1 %	2 %	3 %		0 %	1 %	2 %	3 %
Biological Bases of Behavior	2.8 .5 468	.6	1.9	17.1	80.3	2.1 1.0 468	10.5	11.5	35.5	42.5
Cognitive-Affective Bases of Behavior	2.9 .3 469	.4	0	8.3	91.3	2.6 .8 468	4.3	4.7	22.2	68.8
Social and Multicultural Bases of Behavior	2.9 .4 467	.2	.4	9.9	89.5	2.5 .8 468	4.3	5.1	28.0	62.6
Growth and Lifespan Development	2.9 .4 468	.9	.9	11.1	87.2	2.4 .9 467	6.4	7.9	22.5	63.2
Assessment and Diagnosis	2.9 .4 467	.6	.6	9.6	89.1	2.3 .9 467	7.5	10.3	22.5	59.7
Treatment, Intervention, and Prevention	2.9 .3 468	.6	.4	5.1	93.8	2.5 .9 468	6.2	6.6	18.6	68.6
Research Methods and Statistics	2.6 .6 467	.9	5.4	23.8	70.0	1.4 1.0 467	20.3	35.3	25.5	18.8
Ethical, Legal, and Professional Issues	2.9 .4 467	.4	1.3	4.7	93.6	2.5 .8 468	3.0	10.0	20.3	66.7

The respondents in major areas of practice were consistent in their ratings of content areas. They were similar in regard to their Importance ratings in connection with the eight content areas using the preset criteria described above and to their Frequency ratings in connection with six of the eight content areas using the preset criteria described above. The respondents were least similar in regard to their Frequency ratings in connection with the Research Methods and Statistics content area; that is, respondents in one major area of

practice (i.e., industrial-organizational) achieved the preset Frequency criterion, while respondents in three major areas of practice (i.e., Clinical, Counseling, and School) did not. The respondents were also dissimilar in regard to their Frequency ratings in connection with the Treatment, Intervention, and Prevention content area; that is, respondents in three major areas of practice (i.e., Clinical, Counseling, and School) achieved the preset Frequency criterion, while respondents in one major area of practice (i.e., industrial-organizational) did not.

For the master's level respondents, the mean Frequency ratings for the content areas range from 1.2 for the Research Methods and Statistics content area to 2.5 for the Cognitive-Affective Bases of Behavior content area indicating that the respondents call upon knowledge from the content areas from infrequently - to - moderately frequently and to moderately - to - very frequently. Consistent with the Importance ratings previously described, respondents call upon the knowledge from seven of the eight content areas moderately - to - very frequently and the knowledge from Research Methods and Statistics content area infrequently - to - moderately frequently.

Table 36 Support on Content Area Ratings by Respondents in Major Areas of Practice for Scale Points 2 and 3 on Importance and Frequency

Content Area	Importance	Frequency
<b>Biological Bases of Behavior</b> - knowledge of (a) biological and neural bases of behavior, (b) psychopharmacology, and (c) methodologies supporting this body of knowledge.	ALL	ALL
<b>Cognitive-Affective Bases of Behavior</b> - knowledge of (a) cognition and its neural bases, (b) theories and empirical bases of learning, memory, motivation, affect, emotion, and executive function, and (c) factors that influence cognitive performance and or emotional experience and their interaction.	ALL	ALL
<b>Social and Multicultural Bases of Behavior</b> - knowledge of (a) intrapersonal, interpersonal, intragroup, and intergroup processes and dynamics, (b) theories of personality, and (c) issues in diversity.	ALL	ALL
<b>Growth and Lifespan Development</b> - knowledge of (a) age-appropriate development across the life span, (b) atypical patterns of development, and (c) the protective and risk factors that influence developmental outcomes for individual.	ALL	ALL
<b>Assessment and Diagnosis</b> - knowledge of (a) psychometrics, (b) assessment models and instruments, (c) assessment methods for initial status of and change by individuals, couples, families, groups, and organizations, and (d) diagnostic classification systems and their limitations.	ALL	ALL
<b>Treatment, Intervention, and Prevention</b> - knowledge of (a) individual, couple, family, group, organizational, or community interventions for specific concerns/disorders in diverse populations, (b) intervention and prevention theories, (c) best practices, and (d) consultation models and processes.	ALL	Not I/O
<b>Research Methods and Statistics</b> - knowledge of (a) research design, methodology, and program evaluation, (b) instrument selection and validation, and (c) statistical models, assumptions, and procedures.	ALL	Not CL, CP, SC
<b>Ethical, Legal, and Professional Issues</b> - knowledge of (a) code of ethics, (b) professional standards for practice, (c) legal mandates and restrictions, (d) guidelines for ethical decision-making, and (e) professional training and supervision.	ALL	ALL

Note. CL= Clinical (n=201); CP = Counseling Psychology (n= 49); SC = School (n=61); I/O = Industrial-Organizational (n=28)

As can be seen in Table 37, the Importance ratings for the eight content areas range from 2.6 for Research Methods and Statistics content area to 2.9 for the remaining content areas indicating that the content areas range from being moderately - to - very important to the practice of master's level psychologists in promoting the wellbeing of the client/public. About 90% of the ratings for four of the eight of the content areas were at scale point 3. Only one content area, Ethical, Legal, and Professional Issues, had 62% of the ratings at scale point 3.

Table 38 shows that the Importance ratings for the eight content areas range from 2.6 for Research Methods and Statistics content area to 2.9 for six of the remaining content areas indicating that the content areas range from being moderately - to - very important to the practice of doctoral level psychologists in promoting the wellbeing of the client/public. About 90% of the ratings for four of the eight of the content areas were at scale point 3. Only one content area, Research Methods and Statistics, had 70% of the ratings at scale point 3.

For the doctoral level respondents, the mean Frequency ratings for the content areas range from 1.6 for the Research Methods and Statistics content area to 2.6 for four of the remaining content areas indicating that the respondents call upon knowledge from the content areas from infrequently - to - moderately frequently and to moderately - to - very frequently. Consistent with the Importance ratings previously described, respondents call upon the knowledge from seven of the eight content areas moderately - to - very frequently and the knowledge from Research Methods and Statistics content area infrequently - to - moderately frequently.



Table 37 Descriptive Statistics for Master's Level Respondents on Content Areas: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Frequency

Content Areas	Importance					Frequency				
	M SD n	Rating Scale Point				M SD n	Rating Scale Point			
		0 %	1 %	2 %	3 %		0 %	1 %	2 %	3 %
Biological Bases of Behavior	2.8 .5 181	1.1	2.2	14.9	81.8	1.9 1.0 181	14.9	12.2	36.5	36.5
Cognitive-Affective Bases of Behavior	2.9 .3 181	.6	0	6.6	92.8	2.5 .8 181	6.1	5.0	23.2	65.7
Social and Multicultural Bases of Behavior	2.9 .3 181	0	.6	9.4	90.1	2.3 .9 181	6.6	6.1	35.4	51.9
Growth and Lifespan Development	2.9 .5 181	1.1	.6	10.5	87.8	2.3 1.0 181	8.8	9.4	24.3	57.5
Assessment and Diagnosis	2.9 .3 180	0	1.1	7.2	91.7	2.3 1.0 180	10.0	10.6	23.3	56.1
Treatment, Intervention and Prevention	2.9 .3 181	.6	.6	4.4	94.5	2.3 1.0 181	9.4	8.3	24.4	56.9
Research Methods and Statistics	2.6 .7 180	1.1	6.1	22.8	70.0	1.2 .9 181	25.6	38.9	25.6	10.0
Ethical, Legal, and Professional Issues	2.9 .4 180	.6	2.2	5.0	62.2	2.4 .9 181	5.5	11.0	22.1	61.3

Table 38 Descriptive Statistics for Doctoral Level Respondents on Content Areas: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Importance: Means, Standard Deviations, Number of Respondents, and Percentage of Responses at Each Scale Point for Frequency

Content Areas	Importance					Frequency				
	M SD n	Rating Scale Point				M SD n	Rating Scale Point			
		0 %	1 %	2 %	3 %		0 %	1 %	2 %	3 %
Biological Bases of Behavior	2.8 .5 284	.4	1.8	18.7	79.2	2.2 .9 284	7.4	11.3	34.9	46.5
Cognitive-Affective Bases of Behavior	2.9 .4 285	.4	0	9.5	90.2	2.6 .7 284	3.2	4.6	21.5	70.8
Social and Multicultural Bases of Behavior	2.9 .4 283	.4	.4	10.2	89.0	2.6 .7 284	2.8	4.6	23.6	69.0
Growth and Lifespan Development	2.8 .4 284	.7	1.1	11.6	86.6	2.5 .8 283	4.9	7.1	21.6	66.4
Assessment and Diagnosis	2.9 .4 284	1.1	.4	11.3	87.3	2.4 .9 284	6.0	10.2	21.8	62.0
Treatment, Intervention and Prevention	2.9 .4 284	.7	.4	5.3	93.7	2.6 .8 284	4.2	5.6	14.4	75.7
Research Methods and Statistics	2.6 .6 284	.7	4.9	23.9	70.4	1.6 1.0 284	17.3	33.1	25.0	24.6
Ethical, Legal, and Professional Issues	2.9 .3 284	.4	.7	4.6	94.4	2.6 .7 284	1.4	9.5	19.4	69.7

**Knowledge in the Practice of Psychology.** This section presents the rating results related to the 79 knowledge statements delineated in connection with the content areas. Results related to the Importance and Usage ratings for each knowledge statement are presented for the total sample and master's and doctoral level respondents (See Appendix F for a copy of the Questionnaire, including the knowledge identified in connection with each content area.)

Appendix P documents the mean, standard deviation, and number of respondents completing the Importance and Usage rating scales for each knowledge statement for the total sample of respondents. Table 39 presents the knowledge statements across content areas with ratings between 1.0 and 1.5 in the Usage scale suggesting that respondents either do not use or do not have the knowledge. As documented in the appendix, the mean ratings of the Importance scale for the knowledge statements within the Biological Bases of Behavior area ranged from 2.2 to 2.7 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. One of the seven knowledge statements within the Biological Bases of Behavior area was rated low in the Usage scale suggesting minimal or no usage. The mean ratings of the Usage scale for the same knowledge area ranged from 1.3 to 2.2 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level.

The mean ratings of the Importance scale for the knowledge statements within the Cognitive-affective Bases of Behavior area ranged from 2.5 to 2.9 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. The mean ratings of the Usage scale for the same knowledge area ranged from 1.8 to 2.6 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level. Three of the seven knowledge statements appear to be used at the analyze/integrate level.

The mean ratings of the Importance scale for the knowledge statements within the Social-multicultural Bases of Behavior area ranged from 2.4 to 2.8 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. The mean ratings of the Usage scale for the same knowledge area ranged from 1.8 to 2.6 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level.

The mean ratings of the Importance scale for the knowledge statements within the Growth and Lifespan Development area ranged from 2.5 to 2.9 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. The mean ratings of the Usage scale for the same knowledge area ranged from 1.8 to 2.6 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level. Four of the eleven knowledge statements appear to be used at the analyze/integrate level.

The mean ratings of the Importance scale for the knowledge statements within the Assessment and Diagnosis area ranged from 2.4 to 2.8 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. Two of the thirteen knowledge statements within the Assessment and Diagnosis area were rated low in the Usage scale suggesting minimal or no usage. The mean ratings of the Usage scale for the same knowledge area ranged from 1.5 to 2.4 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level.

The mean ratings of the Importance scale for the knowledge statements within the Treatment, Intervention, and Prevention area ranged from 2.4 to 2.9 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. Three of the seventeen knowledge statements within the Treatment, Intervention, and Prevention area were rated low in the Usage scale suggesting minimal or no usage. The mean ratings of the Usage scale for the same knowledge area ranged from 1.4 to 2.4 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level.

The mean ratings of the Importance scale for the knowledge statements within the Research Methods and Statistics area ranged from 2.6 to 2.7 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting

client/public wellbeing. One of the seven knowledge statements within the Research Methods and Statistics area was rated low in the Usage scale suggesting minimal or no usage. The mean ratings of the Usage scale for the same knowledge area ranged from 1.5 to 1.7 indicating that the respondents used these knowledge statements at either do not use - to - recognize/recall or the apply/interpret level.

The mean ratings of the Importance scale for the knowledge statements within the Ethical, Legal, and Professional Issues area ranged from 2.8 to 2.9 indicating that these knowledge statements are moderately - to - very important to the respondents for promoting client/public wellbeing. The mean ratings of the Usage scale for the same knowledge area ranged from 2.3 to 2.7 indicating that the respondents used these knowledge statements at either recognize/recall or the apply/interpret level. Two of the five knowledge statements appear to be used at the analyze/integrate level.

Table 39 Knowledge Statements Rated Between 1.0 and 1.5 in the Usage Scale Suggesting that Respondents either Do Not Use or Do Not Have the Knowledge

Knowledge Statements	Usage M DS n
<b>Biological Bases of Behavior</b>	
<b>C6</b> Aplicaciones y limitaciones de: métodos de imágenes del cerebro que describen estructuras y funciones (p.ej., MRI, CT); métodos electro fisiológicos; técnicas de seguimiento terapéutico de drogas; metodologías de separación o análisis genético y evaluación neuropsicológica.	1.3 1.1 468
<b>Assessment and Diagnosis</b>	
<b>C43</b> Instrumentos y métodos para la medición de características y desempeño en trabajos, organizaciones y sistemas de cuidado, instituciones educativas y otras entidades sociales (p.ej., evaluación de desempeño, análisis de puesto, evaluación de necesidades).	1.5 1.1 464
<b>C44</b> Métodos para la evaluación de influencias ambientales en individuos, grupos u organizaciones (p.ej., análisis del comportamiento).	1.5 1.1 464
<b>Treatment, Intervention, and Prevention</b>	
<b>C57</b> Intervenciones en administración de recursos humanos (p.ej., manejo de riesgo, adiestramiento, solución de conflicto).	1.5 1.1 467
<b>C63</b> Políticas y asuntos económicos del cuidado de salud que influyen en los servicios psicológicos (p.ej., fuentes de fondos, consideraciones de costo-beneficio, compensación por costo médico, distribución de recursos de cuidado de salud).	1.4 1.1 466
<b>C64</b> Prácticas del consumidor (p.ej., efecto del acceso por internet a información de salud, participación del consumidor en la planificación de tratamiento), apoderamiento del paciente.	1.5 1.1 466
<b>Research Methods and Statistics</b>	
<b>C73</b> Técnicas y estrategias de evaluación (p.ej., evaluación de necesidad, evaluación de proceso e implantación, programa de evaluación formativa y sumativa, evaluación de resultados, análisis de costo-beneficio, beneficios a la salud pública).	1.5 .97 466

Table 40 presents the mean of means and the standard error of the means for the Importance and Usage rating scales for knowledge statements associated with each content areas for the total sample of respondents. The pattern of ratings reported in Table 40 is somewhat consistent with the pattern of ratings presented in Table 34, wherein respondents rated each content area on Importance, although the ratings appear slightly lower on the specific knowledge statements than on the associated content areas. For the total sample, the mean of means for the Importance scale range from 2.5 for the seven knowledge statements delineated in association with the Biological Bases of Behavior content area to 2.9 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area. For the total sample, the mean of means for the Usage scale range from 1.6 for the seven knowledge statements delineated in association with the research methods and Statistics content area to 2.5 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area.

Overall, the knowledge statements associated with the eight content areas were moderately - to - very important to respondents for promoting the wellbeing of client/public, while the knowledge statements associated with three content areas were used by respondents at the do not use - to - recognize/recall or the apply/interpret level, and the knowledge statements associated with five content areas were used by respondents at the apply/interpret level.

Table 41 presents the mean of means and the standard error of the means for the Importance and Usage rating scales for knowledge statements associated with each content area for the master's level respondents. For the master's level respondents, the mean of means for the Importance scale range from 2.6 for the knowledge statements delineated in association with three content areas to 2.9 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area. For the master's level respondents, the mean of means for the Usage scale range from 1.4 for the seven

knowledge statements delineated in association with the Research Methods and Statistics content area to 2.3 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area and the knowledge statements delineated in association with three other content areas.

Overall, the knowledge statements associated with the eight content areas were moderately - to - very important to master's level respondents for promoting the wellbeing of client/public. The knowledge statements associated with three content areas were used by respondents at the do not use - to - recognize/recall or the apply/interpret level, and the knowledge statements associated with five content areas were used by master's level respondents at the apply/interpret level.

Table 40 Mean and Standard Error of Means for Importance and Usage Ratings for Knowledge Statements within Content Areas

Content Areas	# of Knowledge Statements	Importance	Usage
Biological Bases of Behavior	7	2.5 0.0	1.8 0.0
Cognitive-Affective Bases of Behavior	7	2.8 0.0	2.4 0.0
Social and Multicultural Bases of Behavior	12	2.6 0.0	2.0 0.0
Growth and Lifespan Development	11	2.8 0.0	2.4 0.0
Assessment and Diagnosis	13	2.6 0.0	2.0 0.0
Treatment, Intervention, and Prevention	17	2.7 0.0	1.9 0.0
Research Methods and Statistics	7	2.6 0.0	1.6 0.0
Ethical, Legal, and Professional Issues	5	2.9 0.0	2.5 0.0



Table 41 Mean of Means and Standard Error of Means for Importance and Usage Ratings for Knowledge Statements within Content Areas for Master's Level Respondents

Content Areas	# of Knowledge Statements	Importance	Usage
Biological Bases of Behavior	7	2.6 .0	1.7 .1
Cognitive-Affective Bases of Behavior	7	2.8 .0	2.3 .0
Social and Multicultural Bases of Behavior	12	2.6 .0	1.9 .1
Growth and Lifespan Development	11	2.8 .0	2.3 .0
Assessment and Diagnosis	13	2.7 .0	1.9 .1
Treatment, Intervention, and Prevention	13	2.7 .0	1.8 .1
Research Methods and Statistics	7	2.6 .0	1.4 .1
Ethical, Legal, and Professional Issues	5	2.9 .0	2.3 .1

Table 42 presents the mean of means and the standard error of the means for the Importance and Usage rating scales for knowledge statements associated with each content area for the doctoral level respondents. For the doctoral level respondents, the mean of means for the Importance scale range from 2.5 for the knowledge statements delineated in association with two content areas to 2.9 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area. For the doctoral level respondents, the mean of means for the Usage scale range from 1.8 for the seven knowledge statements delineated in association with the Research Methods and Statistics content area to 2.6 for the five knowledge statements delineated in association with the Ethical, Legal, and Professional Issues content area.

Overall, the knowledge statements associated with the eight content areas were moderately - to - very important to doctoral level respondents for promoting the wellbeing of client/public. The knowledge statements associated with the eight content areas were used by doctoral level respondents at the apply/interpret level.

Table 42 Mean of Means and Standard Error of Means for Importance and Usage Ratings for Knowledge Statements within Content Areas for Doctoral Level Respondents

Content Areas	# of Knowledge Statements	Importance	Usage
Biological Bases of Behavior	7	2.5 .0	1.9 .0
Cognitive-Affective Bases of Behavior	7	2.7 .0	2.4 .0
Social and Multicultural Bases of Behavior	12	2.5 .0	2.1 .0
Growth and Lifespan Development	11	2.8 .0	2.5 .0
Assessment and Diagnosis	13	2.6 .0	2.0 .0
Treatment, Intervention, and Prevention	13	2.6 .0	2.0 .0
Research Methods and Statistics	7	2.6 .0	1.8 .1
Ethical, Legal, and Professional Issues	5	2.9 .0	2.6 .0

### Qualitative results

Respondents to the Questionnaire were asked to comment about professional development, regulation of the psychology profession in Puerto Rico, future developments, and professional training. Specifically, they were asked to provide short answers to the following questions: (a) What information or skill would help further your professional development?; (b) Should professional psychology in Puerto Rico continue to be regulated by law?; (c) What degree would be necessary to be admitted to the licensing exam and professional practice of psychology in Puerto Rico?; (d) What changes to the profession of psychology in Puerto Rico would you pursue?; (e) What problems does Puerto Rico face in the legal regulation of psychology?; (f) What aspects of graduate psychology programs do you believe should be modified to address the needs of the profession and the country? The following summary characterizes the common topics addressed by the respondents.

Three hundred and seventeen psychologists responded to the first question. Using frequency counts, participant's responses were grouped into 14 categories for the group in general (see Table 43). Respondents indicated interest in developing skills and advanced knowledge through seminars, workshops, and similar educational experiences in over 50 topics, including neuropsychology/neurosciences (n = 43; 14%), psychopharmacology (n = 31; 10%), forensic psychology (n = 26; 8%), use and application of technology in psychology (n = 25; 8%), psychological measurement/testing (n = 25; 8%), and research and statistics (n = 20; 6%).

Table 43 Respondent's Answers to the Question: What information or skill would help you to further your professional development? n=317

Category	n	%
<b>Biopsychology</b>		
Neuropsychology/neurosciences	43	13.6
Pharmacology/psychopharmacology	31	9.8
Psychology and health	12	3.8
Health and occupational safety	1	.3
<b>Technology</b>		
Use and application of technology in psychology (testing, Electronically based information (research data base, digital educational library, electronic records)	25	7.9
	3	.9
<b>Forensic psychology</b>	26	8.2
<b>Psychological measurements/testing</b>	25	7.9
<b>Research &amp; Program Development</b>		
Research and statistics	20	6.3
Program evaluation	5	1.6
Funding opportunities, grants' proposals and administration	5	1.6
<b>Intervention Techniques</b>		
Couple and family therapy (includes non-traditional families)	13	4.0
Crisis/trauma intervention	12	3.8
Novel treatment techniques	11	3.5
Psychotherapy	10	3.2
Empirically or evidence based interventions	10	3.2
Assessment and diagnosis	8	2.5
Hypnosis/hypnotherapy	7	2.2
Alternative methods of therapy	5	1.6
Spiritual therapy	3	.9
Group therapy	3	.9
Tele-health (online counseling and psychotherapy)	3	.9
<b>Private Practice &amp; Professional Issues</b>		
Private practice (administration, marketing)	15	4.7
Professional issues	10	3.2
Legislation and legal issues relevant to psychology	8	2.5
Health insurance issues	5	1.6
Consulting	4	1.3
Case discussion	2	.6
<b>Training &amp; Education</b>		
Continuing education (current and affordable)	15	4.7
Further graduate studies	7	2.2
Postdoctoral training	4	1.3
Professional certifications	3	.9
Supervision and administration	3	.9

Table 43 (continued)

Category	n	%
<b>Development and Learning issues</b>		
Child/adolescent/school interventions	5	1.6
Developmental problems	5	1.6
Learning Problems	4	1.3
Disorders usually first diagnosed in infancy, childhood, or adolescence (mental retardation, Down Syndrome, Autism)	4	1.3
Sing language/treatment of deaf and hard of hearing people	3	.9
Early intervention/child education	3	.9
School psychology	1	.3
<b>Behavior Problems</b>		
Addiction/substance abuse	7	2.2
Domestic Violence	5	1.6
Sexual abuse	4	1.3
Sexual issues	3	1.3
<b>Thanatology</b>	1	.3
<b>Pain Management</b>	1	.3
<b>Target Populations</b>		
Intervention with elderly population	5	1.6
Interventions with marginalized sectors of society	2	.6
Social-Community interventions	2	.6
<b>Social &amp; Organizational Issues</b>		
Social change and issues	6	1.9
Prevention	3	1.3
Conflict resolution	2	.6
Public Policy	2	.6
Information about psychosocial services	2	.6
Industrial-Organizational psychology	1	.3

Two hundred and forty-six psychologists responded to the second question. Using frequency counts, participant's responses were grouped into 11 categories for the group in general (see Table 44). Respondents support the legal regulation of psychology in order to enforce and monitor ethical and professional behavior (“es una de las mejores formas de mantener un alto nivel ético y profesional y además protege al cliente de inescrupulosos”, “sirve a la fiscalización y monitoreo de la práctica en relación al servicio prestado”). Other reasons to support legal regulation are setting quality controls (“garantiza servicios de calidad y establece estándares legales, profesionales y requisitos mínimos para adiestramiento adecuado y pertinente”), to protect the public (“necesitamos una estructura o base legal para proteger al consumidor de servicios y a la vez garantizar la calidad de los mismos”), to protect the profession and its image (“la reglamentación de la profesión disminuye el riesgo de que personas no calificadas ofrezcan servicios psicológicos sin tener preparación formal” “la norma establecida por ley es necesaria para conservar la imagen y la confianza de la profesión”), and to ensure quality of service (“es una forma de ofrecer valor científico y control de efectividad en los servicios”). Respondents to this question also commented on the need for revisions or amendments to the licensing law in order to distinguish providers of health-related psychological services from psychologists providing services in other areas of practice.

Table 44 Respondent's Answers to the Question: Should professional psychology in Puerto Rico continue regulated by law? Why? n=246

Category	n	%
To enforce and monitor ethical and professional behavior	54	22.0
To establish quality controls	50	20.3
Need to be revised and amended in terms of:	36	14.6
- Contemporary professional demands (9)		
- Type of license (20)		
- Entry level degree (4)		
- Minimum academic requirements (3)		
To protect the wellbeing of the public	30	12.2
To protect the profession	27	11.0
To ensure quality of service	11	4.5
To protect the professional image	8	3.3
Obligatory Continuing Education	4	1.6
Entry level gate keeper	4	1.6
Necessary evil	3	1.2
Legislate minimum salary for psychologist	1	.4

Two hundred and ninety-two psychologists responded to the third question. Using frequency counts, participant's responses were grouped into 3 categories (respondents in favor of the master's degree, the doctoral degree, or both) for the group in general. Respondents commented on a variety of reasons to support their selection (see Table 45). About the same percentage of respondents support either the master's or the doctoral degree as the required entry level for practice. Twelve percent of those supporting the master's degree believe that it provides adequate preparation and knowledge for practice whereas thirteen percent of those supporting the doctoral degree believe that it provides more and better preparation, knowledge, and skills for practice. Regardless of the entry level degree required for practice, respondents would favor that the licensing process distinguish between providers of health-related psychological services from psychologists providing services in other areas of practice.

Table 45 Respondent's Answers to the Question: What degree would be necessary for admittance to the licensing exam and professional practice of psychology in Puerto Rico? Why? n=292

Category	n	%
<b>Respondents in favor of the master's degree (n = 115)</b>		
Provides adequate preparation/knowledge for the practice	35	12.0
Should be the entry level degree	10	3.4
Master's level psychologist are competent professionals	9	4.3
The country has a need of service	9	4.3
Doctoral degree should be for research, supervision, and administration while the master's is for the practice	9	4.3
Master's degree provides the foundations of the profession	5	2.2
The degree does not make a difference	5	2.2
The licensing exam and the license should be by area of practice	4	1.4
Master's degree with more practice hours	3	1.8
Depends on the duties the professional will perform	2	1.3
There is not financial aid for doctoral studies	2	1.3
Master's degree only if the academic curriculum gets revised	1	.3
Master's degree for non-clinical areas	1	.3
Master's degree only for school psychologist	1	.3
Master's degree should have a temporary license	1	.3
Master's degree with continuing education	1	.3
There is no adequate salary for doctoral level practitioners	1	.3
<b>Respondents in favor of the doctoral degree (n = 155)</b>		
Provides more and better preparation/knowledge/skills for the practice	37	12.7
Provides competency	16	5.5
Entry level requirements should be the same for all areas of practice	16	5.5
Master's degree does not prepare for the practice; it is not enough	10	3.4
To guarantee services of quality and excellence	8	2.7
Provides more practice hours	6	2.1
The licensing exam and the license should be by area (clinical & non-clinical)	6	2.1
Is the advanced degree acknowledged by the profession	5	2.2
It guarantee better performance and service	5	2.2
Provides standing to the profession	5	2.2
Doctoral degree psychologists are more effective	4	1.4
The licensing exam and the license should be by degree (master's vs doctoral)	3	1.8
The license should only be for the clinical areas of practice	3	1.8
Master's degree is theoretical while the doctoral degree provides practice	1	.3
Master's level psychologists should practice only under supervision	1	.3
Is a more specialize degree	1	.3
Depends on the duties the professional will perform	1	.3
Doctoral degree prepares for research	1	.3



Table 45 Continued

<b>Respondents in favor of both degrees (n = 22)</b>		
Doctoral degree for Clinical and Master's degree Non-clinical	5	2.2
Keep the current legal requirements for admission to practice	4	1.4
Master's degree only for school psychologist	1	.3
Doctoral degree for practicing psychotherapy	1	.3

Three hundred and twenty-seven psychologists responded to the fourth question. Using frequency counts, participant's responses were grouped into 6 categories (see Table 46). Respondents commented on approximately 36 themes of interest or areas for changes in the profession including professional credentialing recognizing the area of practice (“más diferenciación de las especialidades por que se corre el peligro de que personas no adiestradas realicen funciones de psicólogo clínico”, “reválida para PhD en consejería y escolar; no permitir que psicólogos I-O, sociales, generales ejerzan clínicamente; muchos psicólogos ofrecen servicios clínicos sin experiencia, práctica supervisada sin internado”), mandatory or obligatory association (“colegiación e integración de la medicina con la psicología”, “colegiación para beneficios y salarios”), increased participation in public policy (“más presencia en la elaboración de política pública”, “ser más proactivos en los asuntos que afectan la sociedad”), revision and up-dating of academic programs (“mejor adiestramiento profesional atemperado a las necesidades prácticas de la profesión”, “mayor uniformidad en el adiestramiento clínico”, “reducir el número de admisiones a programas de doctorado”), and pleading for better wages (“las escalas salariales para los psicólogos son muy bajas”, “salarios más dignos en comparación con otras profesiones”).

Table 46 Respondent's Answers to the Question: What changes to the profession of psychology in Puerto Rico would you pursue?; n=327

Category	n	%
<b>Regulations for psychologists</b>		
The licensing exam and the license should recognize area of practice (clinical or non-clinical)	46	14.1
Mandatory/obligatory association	24	7.4
Psychology law needs revision	11	3.4
Doctoral degree as entry level	10	3.1
To enforce and monitor ethical and professional behavior	10	3.1
To delimit the scope of license based on academic degree (private practice, direct service)	4	1.2
To require a minimum of practice hours pre and post degree	3	.9
Master's degree as entry level	2	.6
To establish reciprocity agreements with the USA	2	.6
To replace the licensing exam for holding a doctoral degree	1	.3
<b>Employment issues</b>		
To plead for better wages	15	4.6
To promote inclusiveness, fair contractual agreements, and health insurance coverage for psychologists as providers	11	3.4
To plead for better employment conditions	4	1.2
To adopt basic standards for fee-for service	2	.6
<b>Training programs</b>		
Academic Programs should be revised and up dated	18	5.5
Admission requirements to graduate programs should be more rigorous	7	2.1
Integration of all areas of practice for a more complete preparation	6	1.8
To provide continuing education in areas of practice (I-O, testing, addictions)	6	1.8
To require courses in ethical behavior as continuing education	3	.9
To require a year of psychotherapy to every graduate student	1	.3
Professional certifications	1	.3
Postdoctoral programs	1	.3
<b>Practice</b>		
To promote empirically or evidence based interventions	5	1.5
To get involved in prevention's programs	5	1.5
To have prescription privileges for psychologists	5	1.5
To promote interdisciplinary work (psychologist, psychiatrist, social worker, etc.)	3	.9
To provide more services to communities	3	.9
To adopt standards of care (general and by area of practice)	2	.6
To have admitting, discharge, and treatment hospital privileges	1	.3

Table 46 Continued

<b>Professional issues</b>		
To increase participation in public policy	19	5.8
To earn/secure respect for the profession	12	3.7
To increase public exposure	10	3.1
To educate the public about the profession and its areas of practice	10	3.1
To promote more research and publications	10	3.1
To promote the establishment of norms and development of psychological measurements for the Puerto Rican population	5	1.5
To promote the inclusion of psychologists in the school system	4	1.2

Two hundred and forty-seven psychologists responded to the fifth question. Using frequency counts, participant's responses were grouped into 28 categories (see Table 47). Respondents commented on several perceived problems involving the legal regulation of psychology in Puerto Rico including the need for clinical and non-clinical definitions of scope of practice ("cualquiera puede ejercer como psicólogo clínico sin tener las competencias", "los límites no están bien definidos, los clínicos hacen muchos trabajos que sólo deben realizar los psicólogos industriales-organizacionales", "establecer límites en el ejercicio de la profesión acordes con la preparación académica"); concerns about the enforcement of ethical and professional behavior ("existen psicólogos que ignoran el código de ética", "no se monitorean los conflictos y prácticas no éticas de algunos profesionales"); and the entry level for professional practice ("el doctorado debe ser el grado mínimo para cualquier área de práctica"). Other areas of concern include the need to revise and update the licensing law ("la profesión se mantiene reglamentada como estaba hace más de una década") and a perceived general lack of knowledge about the profession ("desconocimiento de la profesión por parte de las personas que dirigen el país y la población. Se debe convencer cuán importante es la salud mental en el país. El gobierno no le da importancia a la profesión").

Three hundred and twenty-seven psychologists responded to the sixth question. Using frequency counts, participant's responses were grouped into 32 categories (see Table 48). In general participants understand that academic programs should be revised and modified to

reflect current professional developments and the socio cultural needs of the country. This includes increasing the practicum hours required for masters and doctoral level students.

Table 47 Respondent's Answers to the Question: What problems does Puerto Rico face in the legal regulation of psychology? n = 247

Category	n	%
The psychology law does not distinguish between clinical and non-clinical scopes of practice	52	21.0
Lack of enforcement of ethical and professional behavior	12	4.9
Inequality in entry level requirements	10	4.0
Influence of Political parties in the profession	8	3.2
The licensing law is obsolete	7	2.8
Counseling psychologists licensed and practicing the profession	7	2.8
Breach of regulations and code of ethics	6	2.4
Continuing education courses: expensive, repetitive, irrelevant and of poor quality	6	2.4
Public and government ignorance about the profession	6	2.4
Lack of consensus within professionals	5	2.0
Lack of respect toward the profession	4	1.6
Lack of access to the Board of Psychologists	4	1.6
Graduate psychology programs are obsolete	4	1.6
Lack of public policy to support the profession (including fee-for-service)	4	1.6
Problem with health insurance companies	3	1.2
Lack of exposure or representation as profession	2	.8
Use of the medical model	2	.8
Lack of commitment or apathy	2	.8
Discrimination against master's level psychologists	2	.8
The profession seems out of touch with PR social reality	2	.8
Lack of support to the professional organization	2	.8
Practicing the profession with master's degree	1	.4
Inconsistency in the definition of psychologist among the regulations related to psychology	1	.4
Too much bureaucracy	1	.4
There is no license reciprocity with the United States	1	.4
Lack of support from the government	1	.4
Poor quality control	1	.4

Table 48 Respondent's Answers to the Question: What aspects of graduate psychology programs do you believe should be modified to address the needs of the profession and the country? n = 327

Category	n	%
There should be more practicum hours	32	9.8
Modify the curriculum to reflect the socio cultural needs of the country	29	8.9
The curriculum should be updated to reflect current professional developments	21	6.4
Include courses related to how to open a private practice	19	5.8
More research training	13	4.0
All graduate students should go through psychotherapy	9	2.8
More courses in specialty and sub-specialty areas	8	2.4
Establish more demanding admission criteria	7	2.1
To be able to practice with a diverse population	7	2.1
Hire faculty members with credentials, experience, and practice in the subject matter he/she will teach or supervise	6	1.8
More demanding coursework	6	1.8
Improve practicum and internship supervision	6	1.8
Promote tests development and norms for Puerto Ricans	5	1.5
Less theoretical courses	5	1.5
Include evidence based theories and practices in the curriculum	5	1.5
Public policy development and research	5	1.5
Provide more emphasis to evaluation and measurement	4	1.2
Consider work experience as a replacement of internship hours	4	1.2
Develop graduate program combining masters' and doctoral levels	4	1.2
Establish a balance between theory and practice	4	1.2
More use of technology	3	.9
Discuss and study a wider variety of theoretical models	3	.9
Develop a general psychology program that combines specialty areas to provide a more complete professional education and training	3	.9
All graduate programs and internships should be accredited (APA)	3	.9
Less research courses	3	.9
Less ambiguous and clearly stated program purposes and objectives	2	.6
Develop postdoctoral programs	2	.6
Develop a more uniform/standard curriculum	2	.6
Require work with a mentor before getting the license	2	.6
Merge counseling and clinical psychology into a program	1	.3
Add the following courses to the curriculum		
• Substance abuse/addictions	11	3.4
• Family and couple	8	2.4
• Neuropsychology	6	1.8
• Pharmacology	5	1.5
• Measurement/diagnostic/treatment	5	1.5
• Intervention	4	1.2
• Ethic and professional issues (laws & regulations)	4	1.2
• Sexual abuse	3	.9

Category	n	%
• Domestic violence	3	.9
• Forensic psychology	3	.9
• Gerontology/geriatrics	3	.9
• Spirituality	2	.6
• Crisis intervention	2	.6
• Holistic model	2	.6
• Issues of gender & LGTB	2	.6
• Health psychology	1	.3
• Prevention	1	.3
• Transcultural psychology	1	.3
• Stress management	1	.3
• Leadership	1	.3
• Organizational change	1	.3

**Recommendations to inform and refine the content areas  
of the licensure examination for psychologists in Puerto Rico**

The goals of practice analysis studies are to identify and describe the practice patterns of active practitioners in the profession working in different settings and to determine the general knowledge base, skills, and abilities employed by these professionals to effectively carry out those responsibilities. The results of this practice analysis serve to validate the scope of practice and knowledge that a representative number of licensed psychologists in Puerto Rico judged to be relevant (verified as important) for competent professional performance. An analysis of the mean importance ratings for the knowledge required for practice contributes information for the derivation of the test specification providing a substantial evidential basis for the content validity (content relevance) of the licensure examination.

The fourth section of the practice analysis questionnaire asked about the knowledge that is needed to perform responsibilities in the practice of psychology (See Appendix F for a copy of the Questionnaire). Seventy-nine (79) knowledge statements were organized within eight content areas (viz., biological, cognitive-affective, and social-multicultural bases of behavior, growth and lifespan development, assessment and diagnosis, treatment, intervention, and prevention, research methods and statistics, and ethical, legal, and professional issues). The participants provided ratings about the importance of having this body of knowledge to promote client/patient/public wellbeing.

In order to be consistent with the intent of content validity and to ensure that only validated knowledge statements are included in the test specification, a criterion (cut point) for inclusion was established. For this practice analysis, the value of this criterion was set at 2.50, representing the midpoint between moderately important and important.

The knowledge statements were placed into one of three categories based on their mean importance ratings, Pass, Borderline, or Fail. The Pass category contains those

statements whose means are at or above 2.50 and are considered eligible for inclusion in the licensure exam test specification. The Borderline category contains those statements whose means are between 2.40 and 2.49. This category provides a point of discussion to determine if the statement(s) should be included in the licensure exam test specification. The Fail category contains those statements whose mean ratings are less than 2.40. Statements in this category could be excluded from consideration in the licensure exam test specification. However, knowledge statements rated below 2.50 could be reconsidered for inclusion in the test specification if more than 50% of the respondents rated the statement as important and a compelling rationale recommending its inclusion is agreed upon. As shown in Table 49, 80% of the knowledge statements achieved importance means of at least 2.50.

Appendix Q presents the mean, standard deviation, and number of respondents completing the Importance rating scale for each knowledge statement and the percentage of statement endorsement for the total sample of respondents. The results indicates that the twelve knowledge statements classified in the Borderline category (viz., C4, C11, C21, C23, C28, C43, C44, C45, C50, C57, C61, and C63) were rated by more than 50% of the participants as important to promote client/patient/public wellbeing. Three of the four knowledge statements classified in the Fail category (viz., C18, C19, and C64) were rated by more than 50% of the participants as important to promote client/patient/public wellbeing. One knowledge statement in this category (viz., C6) did not meet the established criterion for reconsideration. In light of these observations and established criteria, 78 (99%) knowledge statements were considered eligible for inclusion in the licensure exam test specification.



Table 49 Summary of Knowledge Importance Means by Pass, Borderline, and Fail Categories

Content Areas	Number of Knowledge Statements	Pass Mean $\geq 2.50$	Borderline Mean = 2.40 to 2.49	Fail Mean $\leq 2.40$
Biological bases of behavior	7	5	1	1
Cognitive-affective bases of behavior	7	6	1	0
Social-multicultural bases of behavior	12	8	2	2
Growth and lifespan development	11	10	1	0
Assessment and diagnosis	13	9	4	0
Treatment, intervention, and prevention	17	13	3	1
Research methods and statistics	7	7	0	0
Ethical, legal, and professional issues	5	5	0	0
Total (Percent)	79	63 (80.00)	12 (15.00)	4 (5.00)

Currently, the psychologist licensure examination administered in Puerto Rico assesses ten (10) subject areas (JEPPR, 2008). The results of this practice analysis provide empirical foundation to modify the content areas of the licensure examination as follows:

#### Puerto Rico Licensure Examination Content Areas

Proposed	Current
1. Biological bases of behavior	1. Physiological psychology
2. Cognitive-affective bases of behavior	2. Learning
	3. Motivation
3. Social-multicultural bases of behavior	4. Social psychology
	5. Personality
4. Growth and lifespan development	6. Development
5. Assessment and diagnosis	7. Measurement
	8. Psychopathology
6. Treatment, intervention, and prevention	<b>No equivalent section</b>
7. Research methods and statistics	9. Statistics
8. Ethical, legal, and professional issues	10. Ethical and professional issues

The proposed content areas and the required knowledge base are outlined in the Appendix Q. The areas include topics now assessed separately, present a refined definition, and enhance scope of the knowledge covered by each area. For example, Physiological

psychology is an element within Biological bases of behavior. Learning and motivation are elements covered within Cognitive-affective bases of behavior. Social psychology and personality become elements within Social and multicultural bases of behavior. Development is part of Growth and lifespan development. Measurement and psychopathology, currently two separate subjects, are covered within Assessment and diagnosis. The content area of Treatment, intervention, and prevention appears to have no current equivalent. The contents of the current Statistics area is covered in Research methods and statistics. The current area of Ethical and professional issues is revised and enhanced to include additional relevant elements identified in the present study. These knowledge content areas are to be used as guidelines for constructing the Puerto Rico licensure examination. In addition to these content areas, the descriptions of the roles of professional psychologists may be used to aid in the development of job-relevant examination questions.

### **Final comments and Recommendations**

In summary, the overall pattern of the frequency and importance ratings on the roles, responsibilities, and knowledge indicates the practice analysis delineation included critical activities performed by licensed psychologists in their profession. These results are useful to inform governmental agencies, private, and community-based organizations about the activities performed and services provided by professional licensed psychologists in Puerto Rico. These rating results and information about professional issues and psychologists' professional development needs should be considered very carefully, as they provide guidance to psychology programs and professional organizations with regard to the development of academic curriculum, continuing education programming, training, credentialing examinations, and professional standards.

#### **Recommendations for the Puerto Rico Psychologists Examining Board**

The results of this practice analysis provide an excellent opportunity for the Puerto Rico Psychologists Examining Board to ensure that the licensure examination is based on up-to-date empirically derived data. Information provided by a representative sample of licensed psychologists ensures that the examination specification is based on a set of validated roles, responsibilities, and knowledge important to promoting client/public wellbeing. Recommendations to inform and refine the content areas of the licensure examination for psychologists in Puerto Rico are presented in page 87 of this report.

The Board may benefit from using the Guidelines for Defining a Graduate Program in Psychology (described in the section below) for reviewing the academic credentials of applicants for the licensure examination. For example, the Board may want to ensure that all applicants for the licensure examination have earned a master's or doctoral degree from a clearly defined graduate psychology program. Applicants who earned a terminal master's degree in psychology, shall provide any documentation required by the Board to confirm that the training program fulfill the guidelines' criteria. The applicant shall demonstrate that he

or she has completed education and training (knowledge and competencies) on core psychology areas (guidelines points 11 and 12) and didactic experiences, coursework, and supervised practicum (1,500 hours) in the chosen area of professional practice. Applicants who earned a doctoral degree shall comply with the aforementioned requirements including an internship (psychology health service practice areas only).

### **Recommendations for the Puerto Rico Council on Higher of Education**

The Puerto Rico Council on Higher of Education and the new Puerto Rico Council of Education (hereafter the Council), created by virtue of the Reorganization Plan Number 1 of July 26, 2010, are authorized to evaluate the programs and educational offerings of Higher Education Institutions licensed to grant degrees and professional credentials in several disciplines and professions. According to the aforementioned law, in order to protect the right of every person to an education, as proclaimed in Section 5 of the Constitution of the Commonwealth of Puerto Rico, the Council's public policy core principles ensure the following: *“la disponibilidad de programas de estudio y adiestramiento que cumplan con los estándares de la comunidad académica y profesional, de modo que los cursos ofrecidos en Puerto Rico sean reconocidos por las autoridades reglamentadoras de la educación y profesiones más allá de la jurisdicción local”*. The Council shall monitor that professional training programs fulfill the dual responsibility of providing a sound education to its students as well as ensuring the acquisition of knowledge, skills, and competencies required for professional practice.

Therefore, the Council is encouraged to consider the following recommendations.

A. To share this report with higher education institutions granting masters and doctoral degrees in psychology encouraging institutions to use this information for curriculum design, development and revision. Participants of the study indicated that academic programs should be revised and modified to reflect current professional practice and the socio-cultural needs

of the country. This includes increasing supervised practicum hours required for masters and doctoral level students.

B. The Council shall verify, during the Licensing Renewal process, that institutions with graduate programs in psychology comply with the Regulations for Granting Licenses to Institutions of Higher Education in PR, Num. 7605, regarding to admission requirements, faculty members' credentials, research requirements, and practice hours, among other criteria.

C. The findings of this study identified the current roles, responsibilities and the associated knowledge and skills required for professional practice in Puerto Rico. Based on these findings and the reviewed literature, the Council is encouraged to consider the following Guidelines for Defining a Graduate Program in Psychology. The proposed guidelines are based on the results of the present study, a review of graduate psychology programs' descriptions, and the adaptation of elements shared by several guidelines on education and training in psychology. The guidelines are compatible with education and training guidelines approved by professional organizations in psychology (e.g., APA, National Register of Health Service Providers in Psychology/ASPPB, Society for Industrial-Organizational Psychology, National Association of School Psychologists, Society of Counseling Psychology, and the Council of Applied Master's Programs in Psychology).

The intent of these guidelines is to implement a competency-based approach model of education and training focusing on the integration of knowledge, skills and abilities necessary to prepare competent graduates for credentialing and professional practice as a psychologist. These general guidelines seek to ensure the coverage of core competencies in master's and doctoral programs of psychology in Puerto Rico while assuring compatibility with training requirements abroad in order to facilitate professional mobility of licensed psychologists. In terms of their applicability by academic level, master's psychology programs shall comply with requirements 1 to 14 and 16 whereas doctoral level programs shall comply with all of the

requirements. The guidelines, while requiring preparation in a general foundation of knowledge and skills in the core areas, provide desirable flexibility to offer coursework and didactic-practicum experiences on advanced competencies in the practice area in which the program provides professional training. The ASPPB Guidelines on Practicum Experience for Licensure (2009) suggest that practicum students complete somewhere between 1,500 and 2,000 total practicum site hours in order to prepare for state licensure requirements.

### **Guidelines for Defining a Graduate Program in Psychology**

1. Graduate training in psychology is a masters or doctoral level program offered at a higher education institution.
2. The program, wherever it may be administratively housed, must be clearly identified and labeled as a psychology program. Such a program must specify in pertinent institutional catalogues and publications its intent to educate and train professional psychologists. The institutional catalogue shall include a complete description of the program, policies and procedures governing academic admissions criteria, degree requirements, (e.g., courses, total credit hours, comprehensive examination, practicum, internship, and research hours), student performance evaluation, feedback, retention, and termination decisions, due process and grievance procedures, rights and responsibilities, financial support, and other relevant institutional information.
3. The program clearly specifies an explicit mission, philosophy of education, and training model which guide and structure the content of the curriculum.
4. The psychology program must stand as a recognizable, coherent organizational entity within the institution.
5. There must be a clear authority and primary responsibility for the core and practice areas whether or not the program cuts across administrative lines.
6. The program must be an integrated, organized sequence of study.

7. There must be an identifiable psychology faculty sufficient in size and breadth to carry out its responsibilities. There must be an identifiable psychology faculty who demonstrate substantial competence and have recognized credentials consistent with the practice area in which the program provides training.
8. The director of the program must be a psychologist.
9. The program must have an identifiable body of students who are matriculated in that program for a degree.
10. The curriculum shall encompass a minimum of three academic years of full time graduate study and a minimum of one year's residency at the educational institution granting the degree.
11. The core program shall require every student to demonstrate substantial understanding and competence in each of the following substantive areas. This typically will be met by integrating content across the curriculum or through substantial instruction in each of these foundational areas, as demonstrated by evidence of an integrated curriculum or a minimum of three graduate semester hours, five or more graduate quarter hours (when an academic term is other than a semester, credit hours will be evaluated on the basis of fifteen hours of classroom instruction per semester hour), or the equivalent: (the required knowledge for each of these areas is presented in Appendix Q).
  - a. Biological Bases of Behavior - knowledge of (a) biological and neural bases of behavior, (b) psychopharmacology, and (c) methodologies supporting this body of knowledge.
  - b. Cognitive-Affective Bases of Behavior - knowledge of (a) cognition and its neural bases, (b) theories and empirical bases of learning, memory, motivation, affect, emotion, and executive function, and (c) factors that influence cognitive performance and or emotional experience and their interaction.

- c. Social and Multicultural Bases of Behavior - knowledge of (a) intrapersonal, interpersonal, intragroup, and intergroup processes and dynamics, (b) theories of personality, and (c) issues in diversity.
- d. Growth and Lifespan Development - knowledge of (a) age-appropriate development across the life span, (b) atypical patterns of development, and (c) the protective and risk factors that influence developmental outcomes for individual.
- e. Assessment and Diagnosis - knowledge of (a) psychometrics, (b) assessment models and instruments, (c) assessment methods for initial status of and change by individuals, couples, families, groups, and organizations, and (d) diagnostic classification systems and their limitations.
- f. Treatment, Intervention, and Prevention - knowledge of (a) individual, couple, family, group, organizational, or community interventions for specific concerns/disorders in diverse populations, (b) intervention and prevention theories, (c) best practices, and (d) consultation models and processes.
- g. Research Methods and Statistics - knowledge of (a) quantitative and qualitative research designs, methodology, and program evaluation, (b) instrument selection and validation, and (c) descriptive and inferential statistical models, assumptions, and procedures.
- h. Ethical, Legal, and Professional Issues - knowledge of (a) code of ethics, (b) professional standards for practice, (c) legal mandates and restrictions, (d) guidelines for ethical decision-making, and (e) professional training and supervision.

Note. Knowledge related to Individual Differences such as personality theory, human development, or abnormal psychology is integrated across the previous four (c to f) substantive areas.



12. All students shall be exposed to the current body of knowledge in History and Systems of Psychology.
13. All professional education programs in psychology shall include course requirements in practice areas.
14. The program must include supervised practicum training appropriate to the preparation for internship or the practice of psychology. The practicum experience is a critical part of the sequence of training that leads to licensure.
  - a. Practicum training is an organized, sequential series of supervised experiences of increasing complexity, serving to prepare the student for partially meeting requirements for the degree.
  - b. Training experiences shall follow appropriate coursework and shall be overseen by the graduate training program.
  - c. A practicum level student shall provide only those services that are within the scope of the education received.
  - d. The practicum experience must be supervised by a doctoral level licensed psychologist with training and experience in the pertinent practice area.
  - e. The supervised practicum experience shall be consistent with the program's objectives and curriculum plan.
  - f. Practicum training experiences shall be a minimum of 1,500 hours of supervised professional experience. At least 750 hours shall be devoted to in service-related activities of which 375 hours shall be face-to-face direct contact with service recipients (e.g., individuals, groups, or organizations). In service-related activities also includes treatment/intervention, assessment, interviews, report-writing, case presentation, and consultation. At least 375 hours shall be devoted to supervision and 375 hours shall be spent in support activities (e.g., seminars, interpersonal skills, and professional identity development).

- g. Students shall keep accurate and detailed records of all of their practicum experiences during their graduate training. The number of practicum hours accrued each academic term must be verified by the practicum supervisor.
15. Doctoral programs in psychology health service practice areas (e.g., counseling psychology, clinical psychology, school psychology or similar health service practice areas, must include supervised internship training appropriate to the practice of psychology. An internship is an organized training program designed to provide the intern with a planned, programmed sequence of training experiences in a range of health services in psychology. The primary focus and purpose of internship is assuring breadth and quality of training. The internship experience shall be a minimum 1,500 hours (completed within 24 months) and at least 25% of trainee's time (minimum 375 hours) shall be in direct contact with service recipients.
16. The program must have and makes available to students Practicum and Internship Manuals specifying requirements, policies, and procedures, as well as sections addressing points 14 and 15 of these guidelines, criteria and procedures for the selection of practice centers and internship placements, evaluation methodology of the practicum or internship educational experience, and the students' performance evaluation instrument.

### **Recommendations for Academic Programs**

1. Graduate programs shall ensure that graduates are prepared to fulfill licensure requirements and possess the knowledge, skills and abilities needed for the safe and effective practice of psychology.
2. Graduate programs shall relate knowledge, skills and abilities of students to contemporary research, professional practices, and needs of the population that will receive their services.

3. Graduate programs shall review their curriculum considering the Guidelines for Defining a Graduate Program in Psychology.
4. Institutions shall review the following areas of graduate programs: admission requirements, faculty members' credentials, research requirements and practice hours, among other criteria.
5. Academic programs shall advise students about the knowledge, skills, and abilities required by the profession.
6. Undergraduate programs in psychology shall inform and advise students about graduate studies in PR
7. Graduate programs shall collaborate with the Puerto Rico Psychologists Examining Board by submitting questions (test items) for the development of the licensure exam.

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## Appendix A

### Job Tasks of Psychologist's Positions in Government Agencies in Puerto Rico

Job Sample Tasks	Psychologist Position					
	I	II	III	IV	V	VI
Conduct intake and follow-up interviews for diagnostic and psychotherapeutic purposes	X	X	X			
Select, administer, score, and interpret psychological tests (intelligence, personality, vocational interests, others)	X	X	X	X		
Select, administer, score, and interpret non-verbal psychological tests and tests for infant and blind-deaf populations	X	X	X	X		
Write reports and keep/secure records of clients and administrative documents	X	X	X	X	X	X
Collaborate in the design and development of research projects and program evaluation involving data collection, analysis, and report writing	X	X	X			
Provide crisis intervention services	X	X	X	X		
Conduct psychodiagnostic services, individual, family or group counseling/psychotherapy	X	X	X	X		
Make and document referrals to other services	X	X	X			
Discuss testing reports with authorized providers and parents	X	X	X			
Provide services to children, adolescents, individuals with learning problems and their parents/family	X	X				
Visit patient's home for treatment purposes	X					
Collaborate in the development of treatment plans, case discussion, inter-professional consultation and participate in treatment team activities	X					
Promote client's cognitive, psychosocial, and psychomotor skill development in order to facilitate his/her integration to the community	X	X	X			
Establish communication with community and service organizations to promote client's psychosocial rehabilitation	X	X				
Collaborate in community need assessment	X	X				

Job Sample Tasks	Psychologist Position					
	I	II	III	IV	V	VI
Collaborate in the design and development of organizations and community interventions	X	X				
Promote the development of community support groups	X	X				
Collaborate in the implementation of educational programs for the promotion of mental health	X	X				
Participate in the evaluation of community interventions	X	X				
Participate in the development of psychological-behavioral instruments	X	X				
Collaborate in the development of personnel need assessment for training to improve service quality	X					
Collaborate in the planning and development of service quality assurance programs	X					
Participate in the development of written and verbal tests to measure mental abilities, aptitudes, proficiency, and others	X	X	X			
Participate in the development of assessment instruments including structured interview formats and assessment scales	X	X	X			
Participate in studies to assess psychometric properties and data analysis for test development and validation	X	X	X			
Collaborate in test/instrument security	X	X	X	X		
Participate in the development of test scoring templates/specifications	X	X	X			
Participate in the administration of pre and post tests measuring general knowledge, specific knowledge, and performance	X	X	X			
Participate in test scoring	X	X	X			
Participate in the development of themes for group interviews	X	X	X			
Participate in studies on different areas of personnel selection	X	X	X			
Participate in the development of a bank of items for its use in test development	X	X	X			

Job Sample Tasks	Psychologist Position					
	I	II	III	IV	V	VI
Coordinate and direct case discussions and inter-professional consultation and to participate in treatment team activities		X	X			
Collaborate in the development of organizational and personnel need assessment		X		X	X	X
Collaborate in the design and development of intervention strategies to assure service quality and continuity		X				
Participate in the design, programming, and implementation of personnel training and continuing education		X	X	X	X	X
Keep an up-date record of tests/instruments and all related material		X	X	X		
Analyze occupational tasks from a psychometric perspective and suggest measures for their assessment		X	X			
Prepare and present workshops and seminars	X	X	X			
Provide prevention services to organizations and communities			X			
Provide expertise/ consultation and professional advice			X	X	X	
Direct and supervise the performance of other psychologists				X		
Evaluate treatment programs, psychotherapy interventions, prevention programs and research projects				X	X	X
Coordinate psychology services with other service areas, agencies and the community				X		
Conduct neuro-psychological assessment, crisis intervention, and management of more complex cases				X		
Supervise, direct, and coordinate activities at the service unit (e.g., Unidad de Desarrollo y Análisis de Pruebas del Área de Personal)				X		
Conduct performance appraisals and review job procedures				X		
Supervise and/or direct studies to assess psychometric properties and data analysis for test development and validation				X		

Job Sample Tasks	Psychologist Position					
	I	II	III	IV	V	VI
Review the content of tests measuring general knowledge, specific knowledge, and performance, and the themes used for group interviews				X		
Coordinate and program test administration				X		
Coordinate and direct the development of a bank of items for its use in test development				X		
Write and manage confidential documents				X	X	X
Plan, coordinate, direct, supervise, and evaluate psychological services offered by a Psychology Department in an institution					X	X
Coordinate and or monitor psychology services with other service areas and direct and supervise the performance of other psychologists					X	X
Analyze, evaluate, and suggest changes on services					X	X
Participate in the Assessment Committee of convicts receiving treatment in the Psychiatric Forensic Hospital					X	
Provide expertise/consultation and professional advice to high administrative levels					X	X
Address psychological issues in medical-legal consults in court proceedings (forensic consultation)		X	X	X	X	
Implement several supervisory, consulting, planning, research, program evaluation, hiring, monitoring activities in the position of acting coordinator of psychological services at central administrative level.					X	X
Provide expertise/consultation and professional advice services to directors of Psychology Departments at their corresponding units						X
Design treatment models for mental health and mental retardation services						X
Direct and supervise in the design and development of research projects and program evaluation involving data collection, analysis, and report writing						X

## **Appendix B**

### **Job Sample Tasks of Psychologist's Positions in the Veterans Health Administration Doctoral level Counseling or Clinical Psychologist**

1. Perform Psychological and/or neuropsychological assessment (including the WAIS-III, Rorschach, and MMPI-2)
2. Evaluate, diagnose, and treat patients with problems of personality, emotional adjustment, or mental illness
3. Perform professional work describing human behavior, determining the reasons for that behavior and predicting and/or modifying the behavior
4. Use therapeutic techniques, performs educational, vocational, and rehabilitation counseling of the physically or mentally handicapped, or others in need of vocational guidance
5. Assist clients in arriving at considered decisions and choices regarding educational, vocational or rehabilitation problems
6. Perform individual, couples, group, and family therapy
7. Provide education and consultation to other staff members
8. Collaborate and contribute to the training of staff and trainees on psychological issues
9. Provide adjunctive interventions for treatment of medical disorders
10. Provide professional advice and consultation in areas related to professional psychology and behavioral health

## Appendix C

### Primary and Secondary Employment Settings

Employment Setting	Primary (n = 470)		Secondary (n = 470)	
	n	%	n	%
<b>Institución de Educación Superior</b>	76	16.17	59	12.55
Servicios a estudiantes y facultad	15	3.6	17	7.3
Departamento o centro de psicología	4	1.0	9	3.9
Departamento de psicología	27	6.5	17	7.3
Otro departamento académico	12	2.9	7	3.0
Departamento Administrativo	1	.2	0	0
Centro de orientación y consejería	3	.7	1	.4
Centro de Investigación	10	2.4	5	2.1
Escuela profesional	4	1.0	3	1.3
<b>Sistema Educativo (k-12)</b>	70	14.89	27	5.74
Ambiente educativo (vocacional o educación especial)	48	11.6	10	4.3
Escuela elemental o secundaria	12	2.9	11	4.7
Centro de Consejería (no universitario)	2	.5	2	.9
Oficina del sistema escolar público	8	1.9	4	1.7
<b>Servicios Humanos</b>	193	41.06	115	24.46
Centro gubernamental de salud mental	22	5.3	2	.9
Hospital psiquiátrico privado	11	2.7	1	.4
Práctica grupal Médico-psicológica	14	3.4	13	5.6
Hospital general privado	4	1.0	3	1.3
Hospital general público	5	1.2	2	.9
Hospital de Veteranos	14	3.4	2	.9
Práctica independiente	105	25.4	72	30.9
Práctica grupal de psicología	9	2.2	10	4.3
Centro de Consejería (no universitario)	3	.7	7	3.0
Hogar de rehabilitación	1	.2	1	.4

Employment Setting	Primary (n = 470)		Secondary (n = 470)	
	n	%	n	%
Servicio psicológico en el hogar	2	.5	0	0
Hogar de menores	1	.2	0	0
Centro de servicios comunitario	2	.5	1	.4
Centro geriátrico	0	0	1	.4
<b>Otros</b>	<b>75</b>	<b>15.95</b>	<b>30</b>	<b>6.38</b>
Servicio militar	3	.7	1	.4
Agencia de gobierno estatal	32	7.7	7	3.0
Agencia de gobierno federal	8	1.9	3	1.3
Industria	9	2.2	2	.9
Organización de consultoría	10	2.4	10	4.3
Sistema de justicia criminal	3	.7	3	1.3
Corporación privada	3	.7	2	.9
Centro pre-escolar	2	.5	1	.4
Organizaciones sin fines de lucro	5	1.2	1	.4

## Appendix D

### List of Areas of Expertise

Peritaje	n	%
Psicoterapia	257	54.68
Evaluación-diagnóstico	226	48.08
Niños y adolescentes	212	45.10
Psicología de pareja y familia	96	20.42
Consultoría	64	13.61
Investigación y evaluación	59	12.55
Retardación mental. problemas del desarrollo	46	9.78
Abuso de sustancias	46	9.78
Psicología forense	43	9.14
Desarrollo y cambio organizacional	43	9.14
Psicometría, estadísticas, matemática	28	5.95
Psicología de la salud	27	5.74
Neuropsicología	20	4.25
Psicología ocupacional-de carrera	18	3.82
Psicología geriátrica	18	3.82
Asuntos éticos-profesionales	15	3.19
Psicología del género	14	2.97
Psicología fisiológica, psicobiología	10	2.12
Reclutamiento/adiestramiento	9	1.91
Asuntos de comunidad LGTB	9	1.91
Prevención violencia en fam/Viol Dom	5	1.06
Manejo del dolor	5	1.06
Psicología transcultural	4	.85
Hipnosis-hipnoterapia	4	.85
Psicología social/desarrollo comunitario	3	.63
Psicología deportiva	3	.63
Abuso sexual	3	.63
Trauma -PTSD	2	.42
Personas discapacitadas	2	.42
Escolar/ambiente escolar	2	.42
Duelo-perdida	2	.42
Administración	2	.42
Académica	2	.42



Appendix D Continued

<b>Peritaje</b>	<b>n</b>	<b>%</b>
Terapia de grupo	1	.21
Sexualidad humana	1	.21
Psicología de cesanteado	1	.21
Medicina de salud ocupacional	1	.21
Evaluación Asistencia Tecnológica	1	.21
Estimulación de creatividad	1	.21
Espiritual	1	.21
Análisis conductual aplicado	1	.21
Otros	1	.21

Note: Los participantes seleccionaron entre una y tres áreas de peritaje de una lista de 21 alternativas. Estos pudieron combinar las diversas alternativas y mencionar otras no incluidas en la lista. La columna de porcentaje no suma a 100.

## Appendix E

### Non-Psychology Professional Degrees earned by respondents prior to or after their training in psychology

Subject Area	Prior (n = 130)		After (n = 30)	
	n	%	n	%
Education	24	18.5	5	16.7
Social Work	13	10.0	0	0
Professional Counseling	15	11.5	2	6.7
Business Adm.	13	10.0	1	3.3
Public Health	8	6.2	2	6.7
Theology	7	5.4	3	10.0
Nursing	7	5.4	0	0
Chemistry-Biology	7	5.4	1	3.3
Law	3	2.3	0	0
Physical Therapy	4	3.1	0	0
Communications	4	3.1	1	3.3
Fine Arts	2	1.5	0	0
Engineering	2	1.5	0	0
Sociology	2	1.5	0	0
Criminal justice	2	1.5	0	0
Substance abuse	2	1.5	3	10.0
Planning	1	.8	0	0
Technology	1	.8	0	0
Rehabilitation counseling	2	1.5	0	0
Philosophy	1	.8	1	3.3
Administration - public health	1	.8	0	0
Electrical training	1	.8	0	0
Medicine	1	.8	1	3.3
Humanities	1	.8	0	0
Medical technology	1	.8	0	0
Human services	1	.8	0	0
Tourism	1	.8	0	0
Occupational therapy	1	.8	0	0
Dental hygienist	1	.8	0	0
Naturopathy	0	0	1	3.3
Couching	0	0	3	10.0
Early developmental intervention	0	0	1	3.3
History	0	0	1	3.3
Developmental deficiencies	0	0	1	3.3
Real state	0	0	1	3.3
Project management	0	0	1	3.3

## **Appendix F**

### **Practice of Psychology Questionnaire**

The use of this questionnaire requires written authorization of the authors.



# *Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico*

## *Encuesta nacional de conocimientos, funciones y responsabilidades*



Estimado(a) profesional de la psicología:

El propósito principal de la reglamentación de la psicología es promover la protección de la clientela y público en general asegurando que los servicios son ofrecidos por profesionales capacitados y autorizados para ello. Su participación en este estudio servirá para actualizar la información respecto a las actividades y conocimientos necesarios para ejercer la profesión, notar cómo ha variado desde el primer Análisis de Práctica realizado en el 1984 y aportar al desarrollo de la psicología como disciplina, ciencia y profesión en Puerto Rico. Este cuestionario consiste de seis secciones. Cuatro de éstas exploran funciones, responsabilidades, áreas de contenidos y conocimientos profesionales. Además se incluye una sección de información demográfica y otra de preguntas. Sus respuestas en este cuestionario son anónimas, favor de no escribir su nombre en el mismo.

Agradecemos que complete este cuestionario en su totalidad y lo regrese a nosotros a su más pronta conveniencia en el sobre pre-pagado incluido.

Sinceramente,  
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## SECCION 1: FUNCIONES PROFESIONALES

Las funciones profesionales representan categorías de actividades realizadas por profesionales de la psicología. Éstas incluyen diferentes aspectos de la práctica que pueden complementarse. Es importante que asigne valores a todas las funciones, aun cuando su práctica no conlleve la realización de alguna de ellas. Favor de responder las dos escalas para cada función.

Porcentaje de Tiempo	Importancia
¿Qué porcentaje de su tiempo de trabajo durante el pasado año fue dedicado a esta función? (Escriba su estimado de tiempo. La respuesta tiene que sumar 100%).	¿Cuán importante es realizar cada una de estas funciones para promover el bienestar de la clientela y público en general? <i>(circule el número seleccionado)</i> 0 Sin Importancia                      2 Moderadamente Importante 1 Poco Importante                      3 Muy Importante

Función	Porcentaje de Tiempo	Importancia
<b>Servicios Psicológicos:</b> Diseñar u ofrecer servicios psicológicos, supervisar o administrar su ofrecimiento a individuos, parejas, familias, grupos y organizaciones de forma consistente con las normas éticas y profesionales, las leyes y reglamentos del país.	____%	0   1   2   3
<b>Consultoría, Captación (<i>Outreach</i>) y Creación de Política Pública:</b> Preparar, presentar, coordinar y evaluar programas educativos y de adiestramiento para público en general u organizaciones; diseminar información o proveer peritaje a una variedad de sectores y participar en el proceso de creación de política pública, intercesión y establecimiento de normas de forma consistente con las guías éticas y profesionales, leyes y reglamentos del país.	____%	0   1   2   3
<b>Preparación Académica y Desarrollo Profesional:</b> Desarrollar, implantar, administrar y evaluar programas académicos para profesionales de la psicología incluyendo enseñanza (docencia), supervisión y desarrollo de currículo, de forma consistente con las normas éticas y profesionales, leyes y reglamentos del país; participar en actividades de educación continuada y auto-desarrollo.	____%	0   1   2   3
<b>Investigación, Evaluación y Aptitud Académica (<i>Scholarship</i>):</b> Desarrollar y participar en cualquier actividad para ampliar conocimiento o para mejorar programas y servicio, de forma consistente con las normas éticas y profesionales, leyes y reglamentos del país.	____%	0   1   2   3
Otro (Especifique) _____	____%	0   1   2   3
	<b>100 %</b>	

## SECCION 2: RESPONSABILIDADES PROFESIONALES

Las responsabilidades profesionales son las actividades que los profesionales de la psicología pueden realizar en su práctica. Las responsabilidades se han organizado en las cuatro funciones presentadas en la sección anterior. Para cada responsabilidad, favor de responder la escala de **Frecuencia** y la de **Importancia**. La escala de **Frecuencia** se refiere a **su propio trabajo**. La escala de **Importancia**, enfatiza en su juicio respecto a la **profesión en general**. Es importante que asigne valores a todas las aseveraciones aun cuando usted no realice todas las responsabilidades indicadas en cada área.

Frecuencia		Importancia	
¿Cuán frecuentemente ha realizado esta actividad durante el pasado año? <i>(circule el número seleccionado)</i>		¿Cuán importante es para la profesión que se realice esta actividad, para promover el bienestar de la clientela y público en general? <i>(circule el número seleccionado)</i>	
0	Nunca	2	Frecuentemente
1	Poco Frecuente	3	Muy Frecuentemente
0	Sin Importancia	2	Moderadamente Importante
1	Poco Importante	3	Muy Importante

Frecuencia	Responsabilidades: Servicios Psicológicos	Importancia
0 1 2 3	1. Proveer servicios psicológicos y/o realizar referidos conociendo tipos de evaluación e intervenciones disponibles.	0 1 2 3
0 1 2 3	2. Coordinar y participar en el ofrecimiento de servicios con psicólogos y otros profesionales.	0 1 2 3
0 1 2 3	3. Usar múltiples métodos para recopilar información de individuos, parejas, familias, grupos y organizaciones con el fin de identificar los problemas o necesidades para evaluación, prevención y planificación de intervención.	0 1 2 3
0 1 2 3	4. Desarrollar procedimientos e instrumentos para la evaluación de características de individuos, grupos, trabajos, organizaciones, instituciones educativas y sociales.	0 1 2 3
0 1 2 3	5. Seleccionar, administrar, codificar y valorar instrumentos para la evaluación de características de individuos, grupos, trabajos, organizaciones, instituciones educativas y sociales.	0 1 2 3
0 1 2 3	6. Evaluar e integrar resultados de procesos de recopilación de información y evaluación con conocimiento científico-profesional para formular hipótesis de trabajo, descripciones, diagnósticos y recomendaciones para intervenciones.	0 1 2 3
0 1 2 3	7. Planificar, diseñar e implantar programas de prevención e intervención y estrategias de evaluación.	0 1 2 3
0 1 2 3	8. Preparar, presentar y coordinar cursos, seminarios o talleres para individuos, grupos u organizaciones sobre una variedad de asuntos.	0 1 2 3
0 1 2 3	9. Documentar y comunicar resultados de evaluaciones, recomendaciones de intervenciones, progresos y resultados.	0 1 2 3
0 1 2 3	10. Diseñar, implantar y dar seguimiento a la eficacia y efectividad de programas, sistemas y procedimientos de prevención e intervención (individuales y organizacionales) y modificarlos según sea apropiado.	0 1 2 3

Frecuencia		Importancia	
¿Cuán frecuentemente ha realizado esta actividad durante el pasado año? (circule el número seleccionado)		¿Cuán importante es para la profesión que se realice esta actividad, para promover el bienestar de la clientela y público en general? (circule el número seleccionado)	
0 Nunca	2 Frecuentemente	0 Sin Importancia	2 Moderadamente Importante
1 Poco Frecuente	3 Muy Frecuentemente	1 Poco Importante	3 Muy Importante

Frecuencia	Responsabilidades: Consultoría, Captación ( <i>Outreach</i> ) y Creación de Política Pública	Importancia
0 1 2 3	1. Preparar, presentar, coordinar y evaluar programas o talleres de promoción de la salud para organizaciones o público en general (p.ej., dejar de fumar, crianza, manejo de coraje, programas informativos sobre servicios o recursos psicológicos en la comunidad).	0 1 2 3
0 1 2 3	2. Preparar, presentar, coordinar y evaluar programas de prevención e intervención temprana para poblaciones en riesgo (p.ej., prevención de abuso de sustancias, VIH-SIDA, prevención de maltrato de ancianos, prevención de violencia escolar o doméstica).	0 1 2 3
0 1 2 3	3. Preparar, presentar, coordinar y evaluar cursos, seminarios o talleres para varios grupos (p.ej., personal en el sistema escolar, sistema legal, escenarios de cuidado de la salud u organizaciones).	0 1 2 3
0 1 2 3	4. Proveer peritaje o servir en juntas directivas o comités de agencias gubernamentales (p.ej., junta examinadora, junta de libertad bajo palabra) y otras organizaciones proponentes de políticas públicas.	0 1 2 3
0 1 2 3	5. Proveer peritaje o servir en organizaciones psicológicas e interdisciplinarias, grupos de consumidores u organizaciones benéficas y religiosas en o fuera de Puerto Rico.	0 1 2 3
0 1 2 3	6. Proveer peritaje o servir en juntas directivas o comités de organizaciones (p.ej., comités de acreditación, comité consultivo de programa).	0 1 2 3
0 1 2 3	7. Diseminar conocimiento de la psicología y su valor al público en general mediante varios medios de comunicación (p.ej., entrevistas y artículos para la prensa, comparecencias en radio y televisión).	0 1 2 3
0 1 2 3	8. Formular, abogar y promover la adopción de políticas públicas y normas aplicables a proveedores y consumidores de servicios psicológicos.	0 1 2 3



Frecuencia		Importancia	
¿Cuán frecuentemente ha realizado esta actividad durante el pasado año? (circule el número seleccionado)		¿Cuán importante es para la profesión que se realice esta actividad, para promover el bienestar de la clientela y público en general? (circule el número seleccionado)	
0 Nunca	2 Frecuentemente	0 Sin Importancia	2 Moderadamente Importante
1 Poco Frecuente	3 Muy Frecuentemente	1 Poco Importante	3 Muy Importante

Frecuencia	Responsabilidades: Preparación Académica y Desarrollo Profesional	Importancia
0 1 2 3	1. Preparar, presentar, coordinar y evaluar cursos, seminarios, talleres o conferencias para estudiantes (subgraduados y graduados) y profesionales.	0 1 2 3
0 1 2 3	2. Supervisar, administrar, coordinar y evaluar adiestramiento y prácticas (nivel subgraduado y graduado), internados y programas posdoctorales, para la adquisición de conocimientos y destrezas.	0 1 2 3
0 1 2 3	3. Desarrollar y evaluar currículos universitarios para programas de estudios subgraduado, graduado y posdoctoral, y de educación continuada.	0 1 2 3
0 1 2 3	4. Supervisar profesionales para propiciar su desarrollo profesional y prestación de servicios.	0 1 2 3
0 1 2 3	5. Supervisar y asesorar estudiantes subgraduados, graduados y posdoctorales respecto a investigación y estudios de evaluación (p.ej., tesis, disertaciones).	0 1 2 3
0 1 2 3	6. Proveer asesoría (mentoring) y apoyo a estudiantes subgraduados, graduados y posdoctorales, y profesionales de la psicología.	0 1 2 3
0 1 2 3	7. Participar en actividades profesionales de desarrollo personal y de educación continuada diseñadas para aumentar la efectividad personal y profesional, conocimientos y destrezas (p.ej., auto-cuidado, prevención de síndrome de quemarse por el trabajo).	0 1 2 3

Frecuencia		Importancia	
¿Cuán frecuentemente ha realizado esta actividad durante el pasado año? (circule el número seleccionado)		¿Cuán importante es para la profesión que se realice esta actividad, para promover el bienestar de la clientela y público en general? (circule el número seleccionado)	
0 Nunca	2 Frecuentemente	0 Sin Importancia	2 Moderadamente Importante
1 Poco Frecuente	3 Muy Frecuentemente	1 Poco Importante	3 Muy Importante

Frecuencia	Responsabilidades: Investigación, Evaluación y Aptitud Académica	Importancia
0 1 2 3	1. Revisar y evaluar críticamente la literatura en relación a elementos tales como conceptualización, metodología, interpretación y generalización de resultados y conclusiones.	0 1 2 3
0 1 2 3	2. Usar la base de conocimientos disponible para formular preguntas precisas de investigación y de evaluación de programas, y diseñar métodos apropiados para probarlos.	0 1 2 3
0 1 2 3	3. Administrar y manejar proyectos de investigación o de evaluación de programas. (p.ej., selección y adiestramiento de personal, supervisión de reclutamiento de participantes y recolección de información, asegurar la integridad del diseño).	0 1 2 3
0 1 2 3	4. Recopilar y analizar información usando métodos apropiados de análisis.	0 1 2 3
0 1 2 3	5. Diseminar hallazgos, implicaciones y limitaciones de investigaciones y programas de evaluación.	0 1 2 3
0 1 2 3	6. Participar en actividades educativas para contribuir a la base del conocimiento y promover su entendimiento (p.ej., preparar revisiones de literatura, desarrollar instrumentos, modelos y teorías, escribir libros de texto).	0 1 2 3
0 1 2 3	7. Interpretar y recomendar la aplicación de hallazgos de investigaciones y de programas de evaluación, tomando en consideración sus fortalezas y limitaciones.	0 1 2 3
0 1 2 3	8. Organizar y participar en reuniones y talleres científicos y profesionales.	0 1 2 3
0 1 2 3	9. Preparar propuestas para entidades que otorgan fondos.	0 1 2 3
0 1 2 3	10. Proveer peritaje científico (p.ej., ser editor en revistas profesionales arbitradas, evaluador de propuestas para agencias que otorgan fondos, miembro de Comité de Evaluación de Investigaciones [IRB]).	0 1 2 3

### SECCIÓN 3: ÁREAS DE CONTENIDO

Las áreas de contenido representan categorías de conocimiento usadas por los psicólogos(as) en su práctica. Para cada área favor de responder la escala de **Frecuencia** y la de **Importancia**. Es importante que asigne valores a cada área de contenido, aun cuando su práctica no requiera su uso.

Frecuencia		Importancia	
¿Con cuánta frecuencia ha utilizado el conocimiento del área de contenido en su práctica durante el pasado año? <i>(circule el número seleccionado)</i>		¿Cuán importante es el área de contenido para promover el bienestar de la clientela y público en general? <i>(circule el número seleccionado)</i>	
0 Nunca	2 Frecuentemente	0 Sin Importancia	2 Moderadamente Importante
1 Poco Frecuente	3 Muy Frecuentemente	1 Poco Importante	3 Muy Importante

Frecuencia	Áreas de Contenido	Importancia
0 1 2 3	1. <b>Bases biológicas del comportamiento:</b> Conocimiento de (a) bases biológicas y neurales del comportamiento, (b) psicofarmacología y (c) metodologías que respaldan este cuerpo de conocimientos.	0 1 2 3
0 1 2 3	2. <b>Bases cognoscitivas y afectivas del comportamiento:</b> Conocimiento de (a) cognición y sus bases neurales, (b) teorías y bases empíricas de aprendizaje, memoria, motivación, afecto, emoción y función ejecutiva y (c) factores que influyen el desempeño cognoscitivo, experiencia emocional y su interacción.	0 1 2 3
0 1 2 3	3. <b>Bases sociales y multiculturales del comportamiento:</b> Conocimiento de (a) procesos y dinámicas intra e inter personales, intra e inter grupales, (b) teorías de personalidad y (c) asuntos de diversidad.	0 1 2 3
0 1 2 3	4. <b>Crecimiento y desarrollo en el ciclo de vida:</b> Conocimiento de (a) desarrollo cronológico apropiado a través del ciclo de vida, (b) patrones atípicos de desarrollo y (c) los factores protectores y de riesgo que influyen el proceso de desarrollo de los individuos.	0 1 2 3
0 1 2 3	5. <b>Evaluación y diagnóstico:</b> Conocimiento de (a) psicometría, (b) modelos e instrumentos de evaluación, (c) métodos de evaluación de individuos, parejas, familias, grupos y organizaciones y (d) sistemas de clasificación diagnóstica y sus limitaciones.	0 1 2 3
0 1 2 3	6. <b>Tratamiento, intervención y prevención:</b> Conocimiento de (a) intervenciones para situaciones o trastornos de individuos, parejas, familias, grupos, organizaciones y comunidades en diversas poblaciones, (b) teorías de intervención y prevención, (c) prácticas reconocidas y (d) modelos y procesos de consultoría.	0 1 2 3
0 1 2 3	7. <b>Métodos de investigación y estadísticas:</b> Conocimiento de (a) diseño de investigación, metodología y evaluación de programas, (b) selección y validación de instrumentos y (c) modelos, supuestos y procedimientos estadísticos.	0 1 2 3
0 1 2 3	8. <b>Asuntos éticos-profesionales:</b> Conocimiento de (a) códigos de ética, (b) normas profesionales para la práctica, (c) mandatos y restricciones legales, (d) guías para la toma de decisiones éticas y (e) adiestramiento y supervisión profesional.	0 1 2 3

## SECCIÓN 4: CONOCIMIENTOS PROFESIONALES

Los conocimientos profesionales describen un cuerpo organizado de información necesaria para cumplir con las responsabilidades profesionales. Esta sección está organizada en las ocho áreas de contenido presentadas en la sección anterior. Se reconoce que los profesionales de la psicología pueden tener distintos niveles de conocimiento en cada área. Para cada premisa, favor de responder la escala de **Importancia** y la de **Uso**. La escala de **Importancia** enfatiza en su juicio respecto a la **profesión en general**. La escala de **Uso** se refiere a **su propia práctica**.

Importancia		Uso	
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)		¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)	
0 Sin Importancia	2 Moderadamente Importante	0 No poseo el conocimiento	2 Aplico, interpreto
1 Poco Importante	3 Muy Importante	1 Reconozco, recuerdo la información	3 Analizo, integro

Importancia	Conocimientos: Bases Biológicas del Comportamiento	Uso
0 1 2 3	1. Elementos correlacionados y determinantes de las bases biológicas y neurales del comportamiento (p.ej., neuroanatomía, neurofisiología) correspondientes a percepción, acción, atención, memoria, temperamento y ánimo en estados normales, agudos, crónicos (p.ej., intoxicación por droga) o enfermedad aguda y crónica (p.ej., diabetes, demencia, esquizofrenia y Alzheimer).	0 1 2 3
0 1 2 3	2. Clasificación de drogas (p.ej., ansiolíticos, anti-depresivos, anti-psicóticos, estimulantes); farmacocinética (administración, distribución, metabolismo, eliminación) y farmacodinamia (procesos de los sistemas de mensajeros secundarios y terciarios) según correspondan a los efectos de drogas terapéuticas, drogas abusadas, e interacción de drogas.	0 1 2 3
0 1 2 3	3. Guías para tratamiento farmacológico de trastornos mentales (p.ej., trastornos para los cuales hay tratamientos reconocidos, información de eficacia y resultado, y la combinación con tratamientos no-farmacológicos).	0 1 2 3
0 1 2 3	4. Genética del comportamiento, transmisión y expresión de información genética y sus modificaciones (p.ej., interacción gene-ambiente) y la función de esta información para entender los trastornos (p.ej., alcoholismo, autismo) y enfermedades (p.ej., Síndrome de Down, Alzheimer); diferencias poblacionales en la información genética.	0 1 2 3
0 1 2 3	5. Interacción de factores de desarrollo, sexo, etnia, cultura, ambiente y experiencia con las bases biológicas y neurales del comportamiento.	0 1 2 3
0 1 2 3	6. Aplicaciones y limitaciones de: métodos de imágenes del cerebro que describen estructuras y funciones (p.ej., MRI, CT); métodos electro fisiológicos; técnicas de seguimiento terapéutico de drogas; metodologías de separación o análisis genético y evaluación neuropsicológica.	0 1 2 3
0 1 2 3	7. Bases biológicas y neurales de estrés (p.ej., respuesta endocrina glucocorticoide y sus efectos neurales); la relación del estrés con el funcionamiento biológico y psicológico, con particular referencia al estilo de vida y su modificación (p.ej., rehabilitación cardiaca, dejar de fumar) y salud conductual; efectos del estrés en el sistema inmunológico.	0 1 2 3

Importancia	Uso
<p>¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)</p> <p>0 Sin Importancia      2 Moderadamente Importante 1 Poco Importante      3 Muy Importante</p>	<p>¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)</p> <p>0 No poseo el conocimiento      2 Aplico, interpreto 1 Reconozco, recuerdo la información      3 Analizo, integro</p>

Importancia	Conocimientos: Bases Cognoscitivas-Afectivas del Comportamiento	Uso
0 1 2 3	1. Elementos de la cognición (p.ej., sensación y percepción, atención, aprendizaje, memoria, lenguaje, inteligencia, procesamiento de información, solución de problemas, estrategias para organizar información, funciones ejecutivas).	0 1 2 3
0 1 2 3	2. Bases neurales de la cognición, afecto y emoción.	0 1 2 3
0 1 2 3	3. Teorías, modelos y principios de aprendizaje y su aplicación (p.ej., terapia cognitivo-conductual, estrategias de adiestramiento, estrategias de desempeño deportivo).	0 1 2 3
0 1 2 3	4. Teorías y modelos de memoria (p.ej., sistema de memoria múltiple) y su aplicación (p.ej., uso de mnemónica).	0 1 2 3
0 1 2 3	5. Teorías y modelos de motivación y emoción, y su aplicación (p.ej., auto-regulación, motivación laboral, manejo de coraje, desempeño deportivo).	0 1 2 3
0 1 2 3	6. Interrelaciones entre cogniciones, conducta, afecto, temperamento y ánimo (p.ej., funcionamiento saludable, ansiedad y mejoramiento de ejecutoria, satisfacción con el trabajo, estrés y depresión).	0 1 2 3
0 1 2 3	7. Influencia de factores psicosociales (p.ej., género, clase social, estilos de familia, etnicidad y cultura) sobre las cogniciones y conducta.	0 1 2 3

Importancia	Uso
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (círcule el número seleccionado)	¿Qué alternativa describe cómo usa esta información en su práctica? (círcule el número seleccionado)
0 Sin Importancia            2 Moderadamente Importante	0 No poseo el conocimiento            2 Aplico, interpreto
1 Poco Importante            3 Muy Importante	1 Reconozco, recuerdo la información            3 Analizo, integro

Importancia	Conocimientos: Bases Sociales y Multiculturales del Comportamiento	Uso
0 1 2 3	1. Cognición social y percepción (p.ej., teoría de atribución y prejuicio, desarrollo de estereotipos).	0 1 2 3
0 1 2 3	2. Interacción social (p.ej., relaciones interpersonales, atracción, agresión, altruismo).	0 1 2 3
0 1 2 3	3. Dinámicas de grupo y estructuras organizacionales (p.ej., sistemas escolares y familiares, satisfacción con el trabajo, pensamiento de grupo, conformidad, persuasión) e influencias sociales sobre el funcionamiento individual.	0 1 2 3
0 1 2 3	4. Psicología ecológica-ambiental (p.ej., adaptación de persona-ambiente, diferencias rurales-urbanas, multitudes, contaminación, ruido).	0 1 2 3
0 1 2 3	5. Perspectiva evolutiva en conducta social.	0 1 2 3
0 1 2 3	6. Teorías de personalidad.	0 1 2 3
0 1 2 3	7. Asuntos culturales (p.ej., comparaciones transculturales y de clase social, diferencias políticas, conciencia internacional y global).	0 1 2 3
0 1 2 3	8. Causas, manifestaciones, efectos y la prevención y reducción de la opresión (p.ej., racismo y anti-racismo, sexismo, homofobia, conflicto étnico, colonización, persecución política).	0 1 2 3
0 1 2 3	9. Asuntos raciales y étnicos (p.ej., teorías de identidad racial-étnica, diferencias en estilos de comunicación, diferencias en el desarrollo psicosocial, político y económico de individuos, familias, grupos y comunidades).	0 1 2 3
0 1 2 3	10. Orientación sexual (p. ej., desarrollo de identidad sexual, perspectivas, heterosexual, lesbica, homosexual, bisexual, transgénero).	0 1 2 3
0 1 2 3	11. Psicología del género (p.ej., psicología de la mujer, del hombre, desarrollo de identidad de género).	0 1 2 3
0 1 2 3	12. Asuntos relacionados a impedimentos y rehabilitación (p.ej., impacto psicológico del impedimento, cumplimiento con leyes y reglamentos anti-discrimen, personas con necesidades especiales en el empleo).	0 1 2 3

Importancia	Uso
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)	¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)
0 Sin Importancia            2 Moderadamente Importante	0 No poseo el conocimiento            2 Aplico, interpreto
1 Poco Importante            3 Muy Importante	1 Reconozco, recuerdo la información            3 Analizo, integro

Importancia	Conocimientos: Crecimiento y Desarrollo en el Ciclo de Vida	Uso
0   1   2   3	1. Crecimiento y desarrollo normal a través de la vida (biológico, físico, cognoscitivo, perceptual, social, personalidad, moral y emocional).	0   1   2   3
0   1   2   3	2. Función de los genes, genética del comportamiento y efecto de factores ambientales en el estudio del desarrollo.	0   1   2   3
0   1   2   3	3. Efecto de los padres, compañeros, hermanos, escuelas, comunidad y medios de comunicación en la socialización de la agresión, conducta pro social, antisocial y autoestima.	0   1   2   3
0   1   2   3	4. Influencia de la interacción entre el individuo y el ambiente (p.ej., social, académico o laboral) a través del tiempo en el desarrollo.	0   1   2   3
0   1   2   3	5. Teorías de desarrollo.	0   1   2   3
0   1   2   3	6. Influencia de la cultura y las diferencias culturales en el desarrollo (p.ej., determinación de que es normal o atípico, adaptativo o no).	0   1   2   3
0   1   2   3	7. Desarrollo y funcionamiento de la familia y su efecto en el individuo (p.ej., ciclo de vida familiar, comunicación entre padres e hijos, relaciones entre hermanos, crianza por los abuelos).	0   1   2   3
0   1   2   3	8. Familias no-tradicionales (p.ej., padre-madres solteros, reconstituida) y sus efectos en desarrollo del niño y adolescente.	0   1   2   3
0   1   2   3	9. Eventos de la vida que alteran el curso normal del desarrollo (p.ej., accidentes, divorcio, enfermedad en el individuo o sus padres, muerte)	0   1   2   3
0   1   2   3	10. Factores que promueven problemas o adaptabilidad en ambientes de alto riesgo (p.ej., abuso, pobreza, guerra, trauma).	0   1   2   3
0   1   2   3	11. Factores de riesgo que predicen un curso problemático de desarrollo (p.ej., deficiencia nutricional, pobre cuidado de salud, exposición a violencia y abuso, falta de apoyo social, pobreza, abuso de sustancias por los padres).	0   1   2   3

Importancia		Uso	
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)		¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)	
0 Sin Importancia	2 Moderadamente Importante	0 No poseo el conocimiento	2 Aplico, interpreto
1 Poco Importante	3 Muy Importante	1 Reconozco, recuerdo la información	3 Analizo, integro

Importancia	Conocimientos: Evaluación y Diagnóstico	Uso
0 1 2 3	1. Teoría psicométrica, teoría de generalización y conceptos relacionados (p.ej., construcción de pruebas y procedimientos de estandarización, medidas de validez y confiabilidad).	0 1 2 3
0 1 2 3	2. Modelos y teorías de evaluación (p.ej., psicométrica, conductual, diagnóstica y otros sistemas de clasificación).	0 1 2 3
0 1 2 3	3. Métodos de evaluación (p.ej., muestra de trabajo, observación directa, entrevistas).	0 1 2 3
0 1 2 3	4. Pruebas para la medición de características y conductas de individuos (p.ej., funcionamiento social, emocional, conductual, cognoscitivo y neuropsicológico; personalidad; intereses vocacionales; conducta suicida) y su adaptación para uso con varias poblaciones.	0 1 2 3
0 1 2 3	5. Asuntos de diagnóstico diferencial e integración de información no-psicológica (p.ej., evaluaciones médicas) en evaluaciones psicológicas.	0 1 2 3
0 1 2 3	6. Instrumentos y métodos para la medición de características y desempeño en trabajos, organizaciones y sistemas de cuidado, instituciones educativas y otras entidades sociales (p.ej., evaluación de desempeño, análisis de puesto, evaluación de necesidades).	0 1 2 3
0 1 2 3	7. Métodos para la evaluación de influencias ambientales en individuos, grupos u organizaciones (p.ej., análisis del comportamiento).	0 1 2 3
0 1 2 3	8. Criterios para la selección y adaptación de métodos de evaluación (p.ej., adecuación cultural y lingüística, adaptación transcultural).	0 1 2 3
0 1 2 3	9. Uso de varios sistemas de clasificación (p.ej., DSM) y sus fundamentos y limitaciones para evaluar el funcionamiento de la persona.	0 1 2 3
0 1 2 3	10. Factores que influyen el juicio y diagnóstico para tomar decisiones (p.ej., diferencias grupales, sesgos y diferencias culturales).	0 1 2 3
0 1 2 3	11. Epidemiología de los trastornos del comportamiento, proporción de los trastornos en poblaciones clínicas o demográficas; comorbilidad de trastornos psicológicos con condiciones médicas; proporciones de comorbilidad; grupos de edades afectadas; rasgos asociados.	0 1 2 3
0 1 2 3	12. Métodos para la medición de cambio en individuos, parejas, familias, grupos y organizaciones, debido a prevención o intervención (p.ej., evaluaciones pre-post y de seguimiento, detección de recaída, cumplimiento del paciente y estándares organizacionales).	0 1 2 3
0 1 2 3	13. Uso de computadoras, internet y otras tecnologías en la realización de pruebas, encuestas y otros tipos de evaluación y diagnóstico; validez, costo-efectividad, aceptación del consumidor.	0 1 2 3



Importancia		Uso	
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)		¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)	
0 Sin Importancia	2 Moderadamente Importante	0 No poseo el conocimiento	2 Aplico, interpreto
1 Poco Importante	3 Muy Importante	1 Reconozco, recuerdo la información	3 Analizo, integro

Importancia	Conocimientos: Tratamiento, Intervención y Prevención	Uso
0 1 2 3	1. Asuntos y procesos relacionados a la toma de decisiones de tratamiento basados en la mejor evidencia disponible.	0 1 2 3
0 1 2 3	2. Teorías y modelos contemporáneos de tratamiento e intervención.	0 1 2 3
0 1 2 3	3. Técnicas e intervenciones de tratamiento y la evidencia de su efectividad para trastornos específicos (p.ej., terapia cognoscitiva para depresión, adiestramiento a padres sobre trastorno oposicional desafiante, integración de psicoterapia y psicofarmacología, cambios organizacionales estructurados).	0 1 2 3
0 1 2 3	4. Intervenciones para promover el desarrollo y desempeño de individuos, parejas, familias, grupos y organizaciones (p.ej., entrenamiento a ejecutivos, mejoramiento de desempeño atlético, destrezas para solución de conflictos).	0 1 2 3
0 1 2 3	5. Intervenciones sistémicas y organizacionales (p.ej., para familias, escuelas y comunidades, desarrollo y cambio organizacional).	0 1 2 3
0 1 2 3	6. Procesos y modelos de consultoría para individuos parejas, familias, grupos, organizaciones y comunidades.	0 1 2 3
0 1 2 3	7. Intervenciones en administración de recursos humanos (p.ej., manejo de riesgo, adiestramiento, solución de conflicto).	0 1 2 3
0 1 2 3	8. Consejería académica y ocupacional (p.ej., evaluación ocupacional, mejoramiento de hábitos de estudio, manejo de tiempo).	0 1 2 3
0 1 2 3	9. Colaboración interprofesional y referidos apropiados (p.ej., educación, salud física y mental, servicios sociales, forense, industria) considerando las funciones de otros profesionales en todos los niveles de cuidado.	0 1 2 3
0 1 2 3	10. Intervenciones alternativas y adjuntas (p.ej., hospitalización, psicofarmacología, grupos de apoyo, sistemas de apoyo espiritual y cultural).	0 1 2 3
0 1 2 3	11. Uso de computadoras, internet y otras tecnologías en la planificación y ofrecimiento de tratamiento, intervención, diseño de factores humanos, documentación clínica y de investigación e intercambio autorizado de información de cliente-paciente.	0 1 2 3
0 1 2 3	12. Estructuras del sistema de cuidado de salud (p.ej., red de proveedores), procesos y procedimientos (p.ej., planes de tratamiento y progreso del paciente) y métodos (p.ej., límites de la cubierta de beneficios, criterios de necesidad médica y de autorización previa).	0 1 2 3
0 1 2 3	13. Políticas y asuntos económicos del cuidado de salud que influyen en los servicios psicológicos (p.ej., fuentes de fondos, consideraciones de costo-beneficio, compensación por costo médico, distribución de recursos de cuidado de salud).	0 1 2 3

Importancia	Conocimientos: Tratamiento, Intervención y Prevención	Uso
0 1 2 3	14. Prácticas del consumidor (p.ej., efecto del acceso por internet a información de salud, participación del consumidor en la planificación de tratamiento), apoderamiento del paciente.	0 1 2 3
0 1 2 3	15. Promoción de salud, reducción de riesgos y metas (p.ej., reducir abuso de sustancia, factores de riesgos médicos, violencia, deserción escolar, quemazón en el trabajo) y métodos (p.ej., manejo de estrés, técnicas de seguimiento médico).	0 1 2 3
0 1 2 3	16. Intervenciones para reducir factores de riesgo y promover adaptabilidad y competencia de individuos viviendo en ambientes de riesgo.	0 1 2 3
0 1 2 3	17. Intervenciones para situaciones de estrés traumático agudo (p.ej., consejería en lugares de desastre, intervención en casos de suicidio, intervención con empleados cesanteados)	0 1 2 3

Importancia	Uso
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)	¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)
0 Sin Importancia 1 Poco Importante	2 Moderadamente Importante 3 Muy Importante
	0 No poseo el conocimiento 1 Reconozco, recuerdo la información
	2 Aplico, interpreto 3 Analizo, integro

Importancia	Conocimientos: Métodos de Investigación y Estadísticas	Uso
0 1 2 3	1. Métodos de investigación (p.ej., muestreo, instrumentos, instrucciones a participantes, procedimientos para recolección de información).	0 1 2 3
0 1 2 3	2. Diseño de investigación (p.ej., generación de hipótesis, diseño de estudio, pruebas aleatorias controladas).	0 1 2 3
0 1 2 3	3. Consideraciones para la selección de instrumentos y validación (p.ej., confiabilidad, validez).	0 1 2 3
0 1 2 3	4. Métodos estadísticos y analíticos (p.ej., métodos cualitativo, cuantitativo) y asuntos relacionados (p.ej., poder, tamaño del efecto, interpretación de resultados, generalización, significancia estadística vs clínica).	0 1 2 3
0 1 2 3	5. Consideraciones para la evaluación crítica y el uso de resultados de investigación (p.ej., idoneidad de los instrumentos, limitaciones a la generalización, amenazas a la validez interna y externa, fallas del diseño).	0 1 2 3
0 1 2 3	6. Técnicas y estrategias de evaluación (p.ej., evaluación de necesidad, evaluación de proceso e implantación, programa de evaluación formativa y sumativa, evaluación de resultados, análisis de costo-beneficio, beneficios a la salud pública).	0 1 2 3
0 1 2 3	7. Presentación y divulgación de resultados de investigación (p.ej., análisis e interpretación de la información-datos para publicación en una revista o presentación a un grupo profesional, divulgación de resultados utilizando medios apropiados para ello).	0 1 2 3

Importancia		Uso	
¿Cuán importante es poseer este conocimiento para promover el bienestar de la clientela y público en general? (circule el número seleccionado)		¿Qué alternativa describe cómo usa esta información en su práctica? (circule el número seleccionado)	
0 Sin Importancia	2 Moderadamente Importante	0 No poseo el conocimiento	2 Aplico, interpreto
1 Poco Importante	3 Muy Importante	1 Reconozco, recuerdo la información	3 Analizo, integro

Importancia	Conocimientos: Asuntos Éticos, Legales y Profesionales	Uso
0 1 2 3	1. Código de Ética de la Junta Examinadora de Psicólogos de PR, Código Ética de la Asociación de Psicología de PR (APPR), Principios Éticos y Código de Conducta de la American Psychological Association (APA), entre otros.	0 1 2 3
0 1 2 3	2. Normas y guías profesionales para la práctica de la psicología promulgadas por la APPR, la APA y otras entidades profesionales; requisitos para licencia y otras credenciales.	0 1 2 3
0 1 2 3	3. Leyes promulgadas en Puerto Rico o los Estados Unidos y decisiones judiciales que sean pertinentes y afecten la práctica de la psicología (p.ej., leyes y reglamentos relacionados a protección familiar y de menores, educación, impedimentos, discriminación, reglamentación para el intercambio electrónico de información del paciente, obligación de informar y comunicación privilegiada, selección y reclutamiento, hospitalización involuntaria, reglamentación de la profesión).	0 1 2 3
0 1 2 3	4. Procesos de toma de decisiones éticas (p.ej., solución de conflictos éticos, aspectos éticos de la práctica mediante internet, otros medios electrónicos y medios de comunicación, integración de principios éticos, leyes y normas reglamentadas).	0 1 2 3
0 1 2 3	5. Modelos de desarrollo profesional (p.ej., métodos para el desarrollo y mejoramiento de conocimientos, pericia y desempeño, educación continuada, consultoría y supervisión entre pares, reconocimiento de limitaciones propias, idoneidad de credenciales).	0 1 2 3

## SECCIÓN 5: INFORMACIÓN DEMOGRÁFICA Y PROFESIONAL

1. ¿Cuántos años de experiencia posee como psicólogo(a) licenciado(a)? \_\_\_\_\_ años
2. ¿Cuál es el nivel de educación más alto que posee en psicología? (Circule su respuesta)
  1. Bachillerato más 30 créditos
  2. Maestría
  3. Cursos conducentes al grado doctoral (excepto internado y/o disertación)
  4. Doctorado en Educación (Ed.D.)
  5. Doctorado en Filosofía (Ph.D.)
  6. Doctorado en Psicología (Psy.D.)
  7. Grado Especialista (60 crd. + 1,000 hr. de internado)
  8. Otro grado (indique) \_\_\_\_\_
3. Utilizando la lista de códigos favor de indicar el área principal de adiestramiento en el programa del cual recibió su **grado más alto en psicología** y su área de práctica actual.

Área de Adiestramiento  Otro, indique \_\_\_\_\_

Área de práctica actual  Otro, indique \_\_\_\_\_

Áreas en Psicología
01 Psicología Clínica
02 Psicología de Consejería (Counseling Psych)
03 Psicología Social-Comunitaria
04 Psicología Escolar
05 Psicología Académica Investigativa
06 Psicología Industrial-Organizacional
07 Psicología Organizacional
08 Psicología General
09 Otro (indique en la línea)

4. ¿Posee educación formal a nivel postdoctoral?  
NO \_\_\_\_ SI \_\_\_\_ Indique área \_\_\_\_\_
5. Favor de seleccionar la orientación teórica que describe mejor su acercamiento a la práctica profesional. (Circule su respuesta)
  1. Conductual
  2. Cognoscitivo-conductual
  3. Existencial-Humanista
  4. Interpersonal
  5. Psicodinámica
  6. Aprendizaje Social
  7. Sistémica
  8. Otro (indique) \_\_\_\_\_
6. ¿Cuántos empleos tiene como psicólogo(a)? (Circule su respuesta)
  1. Un empleo
  2. Dos empleos
  3. Tres o más empleos
  4. No trabajo como psicólogo(a) - (pase a la pregunta # 8)
  5. Estoy desempleado(a) - (pase a la pregunta # 8)
  6. Estoy retirado(a) y no trabajo como psicólogo(a) - (pase a la pregunta # 8)

7. Utilizando la lista de códigos, favor de indicar su escenario de trabajo primario y secundario, como psicólogo(a).

Escenario Primario de Empleo  Otro, indique \_\_\_\_\_

Escenario Secundario de Empleo  Otro, indique \_\_\_\_\_

Escenario de Trabajo	
<p><b>Institución de Educación Superior</b></p> <p>01 Servicios a estudiantes y facultad</p> <p>02 Departamento o centro de psicología</p> <p>03 Departamento de psicología</p> <p>04 Otro departamento académico</p> <p>05 Departamento Administrativo</p> <p>06 Centro de orientación y consejería</p> <p>07 Centro de Investigación</p> <p>08 Escuela profesional (derecho, enfermería, medicina)</p> <p><b>Sistema Educativo (k-12)</b></p> <p>09 Ambiente educativo (vocacional o educación especial)</p> <p>10 Escuela elemental o secundaria</p> <p>11 Centro de Consejería (no universitario)</p> <p>12 Oficina del sistema escolar público</p>	<p><b>Servicios Humanos</b></p> <p>13 Centro gubernamental de salud mental</p> <p>14 Hospital psiquiátrico privado</p> <p>15 Práctica grupal Médico-psicológica</p> <p>16 Hospital general privado</p> <p>17 Hospital general público</p> <p>18 Hospital de Veteranos</p> <p>19 Práctica independiente</p> <p>20 Práctica grupal de psicología</p> <p>21 Centro de Consejería (no universitario)</p> <p><b>Otros</b></p> <p>22 Servicio militar</p> <p>23 Agencia de gobierno estatal</p> <p>24 Agencia de gobierno federal</p> <p>25 Industria</p> <p>26 Organización de consultoría</p> <p>27 Sistema de justicia criminal</p>

8. Favor de indicar **tres (3)** áreas de peritaje. (circule sus respuestas)

- |                                       |   |
|---------------------------------------|---|
| 01 Evaluación-diagnóstico             | 12 Psicología de la Salud                       |
| 02 Psicología Ocupacional-de carreras | 13 Psicología de Pareja y Familia               |
| 03 Niños y adolescentes               | 14 Retardación mental, Problemas del desarrollo |
| 04 Neuropsicología                    | 15 Manejo del dolor                             |
| 05 Consultoría                        | 16 Desarrollo y cambio organizacional           |
| 06 Psicología Transcultural           | 17 Psicología Fisiológica, Psicobiología        |
| 07 Asuntos éticos-profesionales       | 18 Psicología del Género                        |
| 08 Psicología Forense                 | 19 Psicometría, estadísticas, matemáticas       |
| 09 Asuntos de comunidad LGBT          | 20 Investigación y evaluación                   |
| 10 Psicología Geriátrica              | 21 Abuso de sustancias                          |
| 11 Psicoterapia                       | 22 Otra (indique) _____                         |

9. Favor de indicar si posee adiestramiento en otra profesión. (Indicar si obtuvo el grado **antes** o **después** de estudiar psicología y las siglas del mismo, p.ej., BBA, MSW, JD, EdD). \_\_\_\_\_ **NO** poseo adiestramiento en otra profesión

Antes Indique grado/siglas	Disciplina	Después Indique grado/siglas
	Derecho	
	Enfermería	
	Salud Pública	
	Administración de Empresas	
	Medicina	
	Trabajo Social	
	Teología/Divinidad	
	Consejería Profesional	
	Otro (indique)	

Utilizando la escala, favor de indicar su **Nivel de Satisfacción** con:

	<b>Muy Insatisfecho</b>				<b>Muy Satisfecho</b>	
10. Actual trabajo en psicología	1	2	3	4	5	6
11. Carrera profesional en psicología	1	2	3	4	5	6

12. En qué año obtuvo su licencia. \_\_\_\_\_

13. Sexo: Femenino \_\_\_\_\_ Masculino \_\_\_\_\_

14. ¿Se considera usted un proveedor de servicios de salud en psicología? Si \_\_\_\_\_ No \_\_\_\_\_  
(Definición - psicólogo/a licenciado/a que posee adiestramiento, conocimientos, destrezas y experiencia en el ofrecimiento de servicios que pueden incluir, pero no se limitan a: prevención, descripción ó diagnóstico del comportamiento, evaluación psicológica, consejería, intervención psicoterapéutica con problemas o desórdenes psicológicos de diversos niveles de severidad, y consultoría, diseñados para promover, conservar, restaurar y rehabilitar la salud emocional, conductual, cognoscitiva, física y ocupacional de individuos y grupos.)

15. Favor de seleccionar la alternativa que mejor represente su ingreso anual bruto (sin deducciones) para el año 2008.

01	menos de 19,999	08	50,000 – 54,999
02	20,000 – 24,999	09	55,000 – 59,999
03	25,000 – 29,999	10	60,000 – 64,999
04	30,000 – 34,999	11	65,000 – 69,999
05	35,000 – 39,999	12	70,000 – 74,999
06	40,000 – 44,999	13	75,000 ó más
07	45,000 – 49,999		

### SECCION 6: PREGUNTAS

1. ¿Qué información o destreza nueva le ayudaría a desarrollarse profesionalmente?

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2. ¿Debe el ejercicio de la profesión de la psicología en Puerto Rico continuar reglamentado por ley?

SI \_\_\_\_\_ NO \_\_\_\_\_ Explique \_\_\_\_\_

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3. ¿Cuál debe ser el grado académico necesario para ser admitido a la reválida e iniciar la práctica de la psicología en Puerto Rico?

Maestría \_\_\_\_\_ Doctorado \_\_\_\_\_ Explique: \_\_\_\_\_

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4. ¿Qué cambio(s) realizaría a la profesión de la psicología en Puerto Rico?

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5. ¿Qué problemas enfrenta reglamentación de la psicología en Puerto Rico?

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6. ¿Qué aspectos de los programas académicos graduados en psicología podrían modificarse para responder a las necesidades de la profesión y de servicio en el país?

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**Gracias por participar en esta investigación de importancia para nuestra profesión.**

**Apreciamos sinceramente su tiempo y cooperación.**

**Utilice el sobre pre-pagado incluido para devolver el cuestionario a la siguiente dirección:**

**L. E. MALDONADO  
Urb. Las Cumbres  
497 Ave. Emiliano Pol Suite 122  
San Juan Puerto Rico, 00926-5636**





## Appendix G

### Researchers' letter to Participants

# *Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico*

Urb. Las Cumbres  
497 Ave. Emiliano Pol Suite 122  
San Juan PR 00926-5636

Septiembre de 2009

Estimado(a) Profesional de la Psicología:

La práctica de la psicología y su futuro en Puerto Rico son temas de interés para profesionales, académicos e investigadores en las diversas áreas de práctica. Conocer con mayor certeza la naturaleza y dirección de los cambios que al presente acontecen en la psicología puertorriqueña contribuirá a enriquecer el diálogo y el desarrollo de ésta como disciplina, ciencia y profesión.

Le invitamos cordialmente a participar en este **Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico**. Su participación ayudará a identificar las funciones, responsabilidades y conocimientos necesarios para la práctica profesional de los psicólogos(as) licenciados residentes en Puerto Rico, así como encaminar iniciativas educativas, profesionales y reglamentarias para los psicólogos(as) en el Siglo 21. Este estudio es el segundo análisis de la práctica de la psicología realizado en Puerto Rico en los pasados 25 años. Los resultados del estudio permitirán: (a) desarrollar una fuente comprensiva de información sobre el ámbito contemporáneo de la práctica de la psicología en Puerto Rico, (b) obtener información de utilidad para establecer criterios de validez para el examen de reválida de psicólogos, (c) proveer información a los programas de psicología para el diseño, desarrollo y revisión de currículo y (d) contribuir a la formulación de política pública de beneficio para instituciones de educación superior.

Su participación en este estudio es muy necesaria, altamente apreciada y completamente voluntaria. Su participación conlleva responder el cuestionario, el cual toma aproximadamente 45 minutos. Consideramos que la participación en el estudio plantea un riesgo mínimo. Puede discontinuar su participación en cualquier momento, sin perjuicio alguno, enviando devuelta el cuestionario.

Sus respuestas e identidad se mantendrán confidenciales conforme a las condiciones establecidas por ley a través de los procesos de recolección de datos, análisis y redacción de resultados. Los resultados se presentarán de forma agregada. Cada cuestionario tiene asignado un número de identificación el cual está impreso en la esquina superior derecha. Este número permitirá dar seguimiento a los cuestionarios no recibidos devuelta y realizar el cómputo de la proporción de devolución. Una vez se reciban los cuestionarios, se escribirá el número de identificación en la lista de recibidos y se tachará dicho número en el instrumento. La lista de números y direcciones se guardará bajo llave y será destruida al finalizar el estudio. Sólo los investigadores tienen acceso a este directorio. Sólo aquellos(as) que no devuelvan el cuestionario recibirán tarjetas postales de recordatorios.

Completar y enviar el cuestionario contestado servirá para documentar su consentimiento de participación en esta investigación. Se incluye un sobre pre-dirigido con sello de correo para devolver el cuestionario. Cada cuestionario contestado es muy importante para lograr una alta proporción de respuestas que permita una interpretación precisa de los resultados del estudio. Favor de enviar el cuestionario contestado en su totalidad a su más pronta conveniencia. Se rifarán varios certificados de regalo entre los participantes que devuelvan el cuestionario contestado en su totalidad. De estos, siete certificados serán aplicables a cursos de educación continua y otros a pruebas psicológicas (p.ej. aptitud, aprovechamiento, valores ocupacionales).

Este estudio está aprobado y es subvencionado por el Consejo de Educación Superior de Puerto Rico con fondos del Centro de Estudios y Documentación sobre la Educación Superior Puertorriqueña. Los resultados de la investigación serán publicados por el Consejo de Educación Superior de Puerto Rico en colaboración con los investigadores. Si usted tiene alguna pregunta sobre la investigación o su participación en la misma, favor de comunicarse con los investigadores a la siguiente dirección de correo electrónico: [analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

Muchas gracias por su interés, colaboración y pronta respuesta.

Sinceramente,

Leslie E. Maldonado, Ph.D.

Gabriel Cirino Gerena, Ph.D.

## Appendix H

### PRCHE 's letter to Participants



ESTADO LIBRE ASOCIADO DE PUERTO RICO  
**CONSEJO DE EDUCACIÓN SUPERIOR DE PUERTO RICO**

PO Box 19900  
San Juan PR  
00910-1900

Tel. 787-724-7100

www.ces.gobierno.pr

13 de mayo de 2009

Estimados/as Participantes:

El Consejo de Educación Superior de Puerto Rico (CESPR) y el Centro de Estudios y Documentación sobre la Educación Superior Puertorriqueña (CEDESP), en virtud de la Ley 213 del 28 de agosto de 2003, promueven la realización de investigaciones sobre temas de educación superior que impactan el desarrollo de política pública. Dentro de este contexto, el CESPR decidió auspiciar la investigación: "*Practice Analysis of Licensed Psychologists in Puerto Rico: Relevant Knowledge, Roles, and Responsibilities*" que será realizada por el Dr. Leslie E. Maldonado Feliciano y el Dr. Gabriel Cirino Gerena.


Los resultados que se generen de esta investigación abonaran al caudal de recursos del CESPR con información de utilidad para el desarrollo y promoción de política pública relacionada a la educación superior en Puerto Rico. Estos también podrán ser de utilidad para los programas de psicología del país proveyéndoles información para ayudarles a revisar, desarrollar y mantener sus ofrecimientos curriculares en consonancia con la práctica profesional contemporánea y a fin con las necesidades de nuestra sociedad. Confiamos que esta investigación aporte notablemente al avance y fortalecimiento del conocimiento en las áreas de educación, adiestramiento y ejecutoria profesional.

Esta encuesta por correo se realiza con el genuino interés de contactar a un alto número de profesionales de la psicología en Puerto Rico, quienes interesados/as en el desarrollo de su disciplina y profesión puedan ayudar a construir una base de datos que sirva esos propósitos. Cada cuestionario contestado es muy importante para lograr una alta proporción de respuestas que permita una interpretación precisa de los resultados del estudio. Por estos motivos, le exhortamos a contestar el cuestionario en su totalidad y a devolverlo a los investigadores a su más pronta conveniencia.

El Consejo agradece de antemano la colaboración y apoyo que pueda brindarle a los investigadores para que puedan llevar a cabo este proyecto.

De necesitar información adicional, favor de comunicarse con el Dr. Leslie E. Maldonado a la siguiente dirección electrónica: [analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

Cordialmente,

  
Jaime Calderón Soto, Ph.D.  
Coordinador del CEDESP

## Appendix I

### Pre-survey Post Card: Invitation

#### Front

Estimado/a Profesional de la Psicología:

Le invitamos cordialmente a participar en la investigación, **Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico**. Su participación ayudará a identificar las funciones, responsabilidades y conocimientos necesarios para la práctica profesional, así como encaminar iniciativas educativas, profesionales y reglamentarias para los psicólogos/as en el siglo 21.

Próximamente recibirá un sobre conteniendo una carta explicativa, el cuestionario y un sobre prepagado para la devolución del cuestionario. Para información adicional puede comunicarse con nosotros escribiendo a la siguiente dirección [analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

Agradecemos su participación en esta importante investigación.

Leslie E. Maldonado, PhD

Gabriel Cirino Gerena, PhD

#### Back

Leslie E. Maldonado, PhD  
Gabriel Cirino Gerena, PhD  
Análisis de Práctica de la Psicología en PR  
Urb. Las Cumbres  
497 Ave. Emiliano Pol Suite 122  
San Juan Puerto Rico, 00926-5636

## Appendix J

### Follow-up Post Card: First

Estimado/a Profesional de la Psicología:

Su participación en la investigación, **Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico** es muy necesaria y altamente apreciada. Si ya envió el cuestionario contestado, le estamos muy agradecidos por su pronta cooperación.

Si aún no lo ha hecho, agradeceremos dedique algunos minutos para completarlo y enviarlo a su más pronta conveniencia. Cada cuestionario contestado es muy importante para lograr una alta proporción de respuestas que permita una interpretación precisa de los resultados del estudio. Si usted necesita una copia adicional del cuestionario, favor de comunicarse con nosotros a la siguiente dirección de correo electrónico [analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

Muchas gracias por su interés, colaboración y pronto respuesta.

Leslie E. Maldonado, PhD

Gabriel Cirino Gerena, PhD

### Follow-up Post Card: Second

#### 2 DO RECORDATORIO

Estimado/a Profesional de la Psicología:

Su participación en la investigación, **Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico** es muy necesaria y altamente apreciada.

Si ya envió el cuestionario contestado, le estamos muy agradecidos por su pronta cooperación. Si aún no lo ha hecho, agradeceremos dedique algunos minutos para completarlo y enviarlo a su más pronta conveniencia.

Puede solicitar la versión electrónica del cuestionario o comunicarse con los investigadores en la siguiente dirección: [analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

Muchas gracias por su interés, colaboración y pronto respuesta.

Leslie E. Maldonado, PhD

Gabriel Cirino Gerena, PhD

## Appendix K

### Letter to the gift certificate's winner

Análisis de la Práctica de los Profesionales de la Psicología en Puerto Rico  
267 Calle Sierra Morena PMB 122  
San Juan PR 00926-5583

Estimado(a) Profesional de la Psicología

Agradecemos su participación en el estudio sobre la práctica de la psicología en PR. Según se indicó en la carta que acompañó el cuestionario, se rifaron varios certificados de regalo entre las personas que devolvieron el cuestionario contestado en su totalidad.

Es motivo de grata satisfacción comunicarle que ha sido una de las personas agraciadas en la rifa y hacerle entrega de su certificado. De igual modo, para su información se acompaña una lista de los cursos de educación continua de la APPR de junio-septiembre de 2010.

Muchas gracias por respaldar nuestros esfuerzos investigativos y colaborar con el progreso de la profesión.

Cordialmente,

Leslie E. Maldonado Feliciano, PhD

Gabriel Cirino Gerena, PhD

[psych@onelinkpr.net](mailto:psych@onelinkpr.net)

[analisispracticapsicologia@gmail.com](mailto:analisispracticapsicologia@gmail.com)

## Appendix L

Table L1 Non-Psychology Professional Degrees Earned by Respondents Prior to Their Training in Psychology by Academic Degree

Training Prior to Psychology	Academic Degree in Psychology				Total
	Master's (n = 41)		Doctoral (n = 85)		
	n	%	n	%	
Ba Nursing	2	4.9	2	2.4	4
Ma Nursing	0	0	2	2.4	2
Ba Public Health	1	2.4	1	1.2	2
Ma Public Health	2	4.9	4	4.7	6
Ba Business Administration	6	14.6	7	8.2	13
Ma Business Administration	0	0	1	1.2	1
Ba Social Work	2	4.9	1	1.2	3
Ma Social Work	1	2.4	9	10.6	10
Ba Education	8	19.5	7	8.2	15
Ma Education	3	7.3	5	5.9	8
Ma Professional Counseling	4	9.8	10	11.8	14
Ba Theology	2	4.9	0	0	2
Ma Theology	0	0	4	4.7	4
Ba Communications	1	2.4	3	3.5	4
Ba Chemistry-Biology	2	4.9	5	5.9	7
Ba Fine Arts	2	4.9	0	0	2
Ba Engineering	1	2.4	0	0	1
Ba Sociology	0	0	2	2.4	2
Ba Humanities	0	0	1	1.2	1
Ba Medical Technology	0	0	1	1.2	1
Ba Human Services	0	0	1	1.2	1
Ba Planning	0	0	1	1.2	1
GA Dental hygienist	0	0	1	1.2	1
Ma Criminal justice	0	0	2	2.4	2
Ma Rehabilitation counseling	0	0	2	2.4	2
Ma Philosophy	0	0	1	1.2	1
Ma Public Administration	0	0	1	1.2	1
Ma Tourism	1	2.4	0	0	1
Law	0	0	3	3.5	3
Ba Physical Therapy	2	4.9	2	2.4	4
Ba Occupational therapy	0	0	1	1.2	1
Medicine	0	0	1	1.2	1
Certificate - Substance abuse	1	2.4	1	1.2	2
Certificate Technology	0	0	1	1.2	1



Table L2 Non-Psychology Professional Degrees Earned by Respondents After their Training in Psychology by Academic Degree

Training After to Psychology	Academic Degree in Psychology				Total
	Master's (n = 13)		Doctoral (n = 14)		
	n	%	n	%	
Ma Public Health	1	7.7	1	7.1	2
Ga Business Administration	1	7.7	0	0	1
Ma Theology	1	7.7	0	0	1
Doc Theology	1	7.7	0	0	1
Doc Professional Counseling	2	14.3	0	0	2
Doc Education	2	14.3	0	0	2
Cert. - Natural Medicine	1	7.7	0	0	1
Cert. - Substance abuse	1	7.7	2	14.3	3
Cert. - Couching	1	7.7	1	7.1	2
Cert. Conflict mediation	1	7.7	0	0	1
Doc History	1	7.7	0	0	1
MA Education	0	0	2	14.3	2
Ma Communications	0	0	1	7.1	1
Ba Chemistry-Biology	0	0	1	7.1	1
Certificate Early developmental intervention	0	0	1	7.1	1
Ma Philosophy	0	0	1	7.1	1
Certificate Developmental deficiencies	0	0	1	7.1	1
Ba Real state	0	0	1	7.1	1
Ba Project management	0	0	1	7.1	1

## Appendix M

**Results of non-parametric statistical analyses (i.e., eta coefficient conducted on Importance and Frequency ratings of recently and less recently licensed respondents)**

ITEM	License Year	
	Eta	Eta Squared
Func1Imp	.077	.006
Func2Imp	.060	.004
Func3Imp	.010	.000
Func4Imp	.023	.001
Func5Imp	.017	.000
RSP01FQ	.033	.001
RSP02FQ	.034	.001
RSP03FQ	.019	.000
RSP04FQ	.199	.040
RSP05FQ	.040	.002
RSP06FQ	.072	.005
RSP07FQ	.049	.002
RSP08FQ	.021	.000
RSP09FQ	.054	.003
RSP10FQ	.038	.001
RSP01IMP	.044	.002
RSP02IMP	.051	.003
RSP03IMP	.087	.008
RSP04IMP	.078	.006
RSP05IMP	.055	.003
RSP06IMP	.061	.004
RSP07IMP	.072	.005
RSP08IMP	.054	.003
RSP09IMP	.102	.010
RSP10IMP	.060	.004
RCC01FQ	.042	.002
RCC02FQ	.026	.001
RCC03FQ	.013	.000
RCC04FQ	.131	.017
RCC05FQ	.094	.009
RCC06FQ	.117	.014
RCC07FQ	.173	.030
RCC08FQ	.108	.012
RCC01IMP	.111	.012
RCC02IMP	.097	.009
RCC03IMP	.115	.013

ITEM	License Year	
	Eta	Eta Squared
RCC04IMP	.073	.005
RCC05IMP	.071	.005
RCC06IMP	.068	.005
RCC07IMP	.020	.000
RCC08IMP	.014	.000
RPA01FQ	.062	.004
RPA02FQ	.122	.015
RPA03FQ	.072	.005
RPA04FQ	.205	.042
RPA05FQ	.117	.014
RPA06FQ	.101	.010
RPA07FQ	.170	.029
RPA01IMP	.060	.004
RPA02IMP	.040	.002
RPA03IMP	.011	.000
RPA04IMP	.025	.001
RPA05IMP	.001	.000
RPA06IMP	.011	.000
RPA07IMP	.016	.000
RIE01FQ	.075	.006
RIE02FQ	.043	.002
RIE03FQ	.035	.001
RIE04FQ	.062	.004
RIE05FQ	.075	.006
RIE06FQ	.090	.008
RIE07FQ	.124	.015
RIE08FQ	.103	.011
RIE09FQ	.082	.007
RIE10FQ	.111	.012
RIE01IMP	.001	.000
RIE02IMP	.063	.004
RIE03IMP	.029	.001
RIE04IMP	.070	.005
RIE05IMP	.088	.008
RIE06IMP	.016	.000
RIE07IMP	.082	.007
RIE08IMP	.063	.004
RIE09IMP	.029	.001
RIE10IMP	.006	.000
CONT01FQ	.035	.001

ITEM	License Year	
	Eta	Eta Squared
CONT02FQ	.027	.001
CONT03FQ	.083	.007
CONT04FQ	.077	.006
CONT05FQ	.055	.003
CONT06FQ	.019	.000
CONT07FQ	.056	.003
CONT08FQ	.065	.004
CONT01IMP	.064	.004
CONT02IMP	.053	.003
CONT03IMP	.078	.006
CONT04IMP	.010	.000
CONT05IMP	.095	.009
CONT06IMP	.077	.006
CONT07IMP	.046	.002
CONT08IMP	.064	.004

## Appendix N

### Reliability Estimates for Rating Scales Using Interclass Correlation for the Total Sample and for Respondents in Counseling, Clinical and School Psychology Practice Areas

Rating Scales	Practice Areas			Total
	Counseling	Clinical	School	
Roles Importance	.94	.99	.99	.72
Responsibility Importance	.94	.94	.94	.96
Responsibility Frequency	.85	.90	.86	.91
Content Area Importance	.78	.76	.61	.80
Content Area Frequency	.74	.74	.77	.81
Knowledge Importance	.96	.96	.95	.97
Knowledge Usage	.95	.95	.95	.97

**Intraclass correlation (ICC)** is used to measure inter-rater reliability for two or more raters when data may be considered interval level. These are reliability coefficients among evaluations of items that are deemed to be in the same category or class. ICC may be conceptualized as the ratio of between-groups variance to total variance. ICC is 1.0 only when there is no variance due to the raters and no residual variance to explain. By convention, a ICC > .70 is considered acceptable inter-rater reliability, but this depends highly on the researcher's purpose. Another rule of thumb is that ICC = .40 to .59 is moderate inter-rater reliability, .60 to .79 substantial, and .80 > outstanding.

A classic citation for intraclass correlation is Shrout and Fleiss (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86, 420-428.

<http://faculty.chass.ncsu.edu/garson/PA765/reliab.htm> retrieved on September 7, 2010.



## Appendix O

### Mean, Standard Deviation, and Number of Respondents Completing the Importance and Frequency Ratings on the 35 Responsibilities for the Total Sample of Respondents

Responsabilidades	Importancia	Frecuencia
	M	M
	DS	DS
	n	n
<b>Servicios Psicológicos</b>		
<b>R1</b> Proveer servicios psicológicos y/o realizar referidos conociendo tipos de evaluación e intervenciones disponibles.  Provide psychological services and/or make referrals with knowledge of types of evaluation and interventions available.	2.93 .356 463	2.38 .995 465
<b>R2</b> Coordinar y participar en el ofrecimiento de servicios con psicólogos y otros profesionales.  Coordinate and participate in service delivery with psychologists and other professionals.	2.72 .558 462	1.89 1.02 461
<b>R3</b> Usar múltiples métodos para recopilar información de individuos, parejas, familias, grupos y organizaciones con el fin de identificar los problemas o necesidades para evaluación, prevención y planificación de intervención.  Use multiple methods to gather information from individuals, couples, families, groups, organizations to identify the problems/needs for assessment, prevention, and intervention planning.	2.81 .475 464	2.05 1.03 464
<b>R4</b> Desarrollar procedimientos e instrumentos para la evaluación de características de individuos, grupos, trabajos, organizaciones, instituciones educativas y sociales.  Develop procedures and instruments for the assessment of characteristics of individuals, groups, jobs, organizations, educational and social institutions.	2.57 .664 462	.97 .935 462
<b>R5</b> Seleccionar, administrar, codificar y valorar instrumentos para la evaluación de características de individuos, grupos, trabajos, organizaciones, instituciones educativas y sociales.  Select, administer, and code/score instruments for the assessment of characteristics of individuals, groups, jobs, organizations, educational and social institutions.	2.58 .675 463	1.31 1.10 463

Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<p><b>R6</b> Evaluar e integrar resultados de procesos de recopilación de información y evaluación con conocimiento científico-profesional para formular hipótesis de trabajo, descripciones, diagnósticos y recomendaciones para intervenciones.</p> <p>Evaluate and integrate results of information-gathering and assessment processes with scientific-professional knowledge to formulate working hypotheses, descriptions, diagnoses, and intervention recommendations.</p>	<p>2.72 .570 463</p>	<p>1.67 1.18 463</p>
<p><b>R7</b> Planificar, diseñar e implantar programas de prevención e intervención y estrategias de evaluación.</p> <p>Plan, design, and implement prevention and intervention programs, and evaluation strategies.</p>	<p>2.71 .571 462</p>	<p>1.31 1.05 462</p>
<p><b>R8</b> Preparar, presentar y coordinar cursos, seminarios o talleres para individuos, grupos u organizaciones sobre una variedad de asuntos.</p> <p>Prepare, present, and coordinate classes, seminars, or workshops for individuals, groups, or organizations on a variety of issues.</p>	<p>2.67 .571 465</p>	<p>1.66 1.06 465</p>
<p><b>R9</b> Documentar y comunicar resultados de evaluaciones, recomendaciones de intervenciones, progresos y resultados.</p> <p>Document and communicate assessment results, intervention recommendations, progress, and outcomes.</p>	<p>2.76 .500 463</p>	<p>2.02 1.08 463</p>
<p><b>R10</b> Diseñar, implantar y dar seguimiento a la eficacia y efectividad de programas, sistemas y procedimientos de prevención e intervención (individuales y organizacionales) y modificarlos según sea apropiado.</p> <p>Design, implement, and monitor efficacy and effectiveness of prevention and intervention programs, systems, and procedures (e.g., individual and organizational) and modify, as appropriate.</p>	<p>2.63 .659 462</p>	<p>1.17 1.09 463</p>



Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<b>Consultoría, Captación (Outreach) y Creación de Política Pública</b>		
<p><b>R11</b> Preparar, presentar, coordinar y evaluar programas o talleres de promoción de la salud para organizaciones o público en general (p.ej., dejar de fumar, crianza, manejo de coraje, programas informativos sobre servicios o recursos psicológicos en la comunidad).</p> <p>Prepare, present, coordinate, and evaluate health promotion programs or workshops for public or organizational audiences (e.g., smoking cessation, parenting, anger management, informational programs on community psychological services/resources).</p>	<p>2.68 .608 461</p>	<p>1.24 1.06 463</p>
<p><b>R12</b> Preparar, presentar, coordinar y evaluar programas de prevención e intervención temprana para poblaciones en riesgo (p.ej., prevención de abuso de sustancias, VIH-SIDA, prevención de maltrato de ancianos, prevención de violencia escolar o doméstica).</p> <p>Prepare, present, coordinate, and evaluate prevention and early intervention programs for at-risk populations (e.g., substance abuse prevention, HIV-AIDS, injury prevention programs for older adults, domestic or school violence prevention).</p>	<p>2.75 .580 459</p>	<p>.93 1.04 461</p>
<p><b>R13</b> Preparar, presentar, coordinar y evaluar cursos, seminarios o talleres para varios grupos (p.ej., personal en el sistema escolar, sistema legal, escenarios de cuidado de la salud u organizaciones).</p> <p>Prepare, present, coordinate, and evaluate classes, seminars, or workshops to various groups (e.g., personnel in school systems, legal systems, health care and organizational settings).</p>	<p>2.65 .630 463</p>	<p>1.16 1.09 463</p>
<p><b>R14</b> Proveer peritaje o servir en juntas directivas o comités de agencias gubernamentales (p.ej., junta examinadora, junta de libertad bajo palabra) y otras organizaciones proponentes de políticas públicas.</p> <p>Provide expertise to or serve on boards or committees of governmental agencies (e.g., licensing board, releasing/parole board) and other policy making organizations.</p>	<p>2.43 .745 460</p>	<p>.48 .868 461</p>
<p><b>R15</b> Proveer peritaje o servir en organizaciones psicológicas e interdisciplinarias, grupos de consumidores u organizaciones benéficas y religiosas en o fuera de Puerto Rico.</p> <p>Provide expertise to or serve on psychological or interdisciplinary organizations, consumer groups, charitable and religious organizations in or out of Puerto Rico.</p>	<p>2.40 .770 461</p>	<p>.79 1.03 462</p>

Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<p><b>R16</b> Proveer peritaje o servir en juntas directivas o comités de organizaciones (p.ej., comités de acreditación, comité consultivo de programa).</p> <p>Provide expertise to or serve on boards or committees of organizations (e.g., accreditation committee, program advisory committee).</p>	<p>2.29 .812 461</p>	<p>.44 .838 462</p>
<p><b>R17</b> Diseminar conocimiento de la psicología y su valor al público en general mediante varios medios de comunicación (p.ej., entrevistas y artículos para la prensa, comparecencias en radio y televisión).</p> <p>Disseminate knowledge of psychology and its value to the general public via various media (e.g., interviews and articles for the press, radio and television appearances).</p>	<p>2.57 .718 461</p>	<p>.77 .996 463</p>
<p><b>R18</b> Formular, abogar y promover la adopción de políticas públicas y normas aplicables a proveedores y consumidores de servicios psicológicos.</p> <p>Formulate, foster, and advocate for policies and standards applicable to providers and consumers of psychological services.</p>	<p>2.58 .709 459</p>	<p>.49 .782 461</p>
<b>Preparación Académica y Desarrollo Profesional</b>		
<p><b>R19</b> Preparar, presentar, coordinar y evaluar cursos, seminarios, talleres o conferencias para estudiantes (subgraduados y graduados) y profesionales.</p> <p>Prepare, present, coordinate, and evaluate courses, seminars, workshops, or conferences for students (undergraduate and graduate) and professionals.</p>	<p>2.67 .607 462</p>	<p>1.13 1.19 464</p>
<p><b>R20</b> Supervisar, administrar, coordinar y evaluar adiestramiento y prácticas (nivel subgraduado y graduado), internados y programas posdoctorales, para la adquisición de conocimientos y destrezas.</p> <p>Supervise, administer, coordinate, and evaluate training and practicum (undergraduate and graduate levels) internship, and post-doctoral fellowship programs for knowledge and skill acquisition.</p>	<p>2.68 .640 462</p>	<p>.86 1.16 464</p>
<p><b>R21</b> Desarrollar y evaluar currículos universitarios para programas de estudios subgraduado, graduado y posdoctoral, y de educación continuada.</p> <p>Develop and evaluate curricula for undergraduate, graduate, post-doctoral, and continuing education programs.</p>	<p>2.62 .689 460</p>	<p>.49 .929 462</p>

Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<p><b>R22</b> Supervisar profesionales para propiciar su desarrollo profesional y prestación de servicios.</p> <p>Supervise professional practitioners to enhance their professional development and service delivery.</p>	2.66 .648 462	.90 1.136 463
<p><b>R23</b> Supervisar y asesorar estudiantes subgraduados, graduados y posdoctorales respecto a investigación y estudios de evaluación (p.ej., tesis, disertaciones).</p> <p>Supervise and advise undergraduate, graduate, and post-doctoral students regarding research and evaluation studies (e.g., thesis, dissertation).</p>	2.63 .648 460	.79 1.08 462
<p><b>R24</b> Proveer asesoría (mentoring) y apoyo a estudiantes subgraduados, graduados y posdoctorales, y profesionales de la psicología.</p> <p>Provide mentoring for undergraduate, graduate, and post-doctoral students, and professional psychologists.</p>	2.65 .622 462	1.12 1.13 462
<p><b>R25</b> Participar en actividades profesionales de desarrollo personal y de educación continuada diseñadas para aumentar la efectividad personal y profesional, conocimientos y destrezas (p.ej., auto-cuidado, prevención de síndrome de quemarse por el trabajo).</p> <p>Participate in professional self-development and continuing education designed to enhance personal and professional effectiveness, and knowledge and skills (e.g., self-care, burnout prevention).</p>	2.81 .489 464	1.78 1.06 463
<b>Investigación, Evaluación y Aptitud Académica</b>		
<p><b>R26</b> Revisar y evaluar críticamente la literatura en relación a elementos tales como conceptualización, metodología, interpretación y generalización de resultados y conclusiones.</p> <p>Critically review and appraise existing literature with regard to issues such as conceptualization, methodology, interpretation, and generalizability of results and conclusions.</p>	2.62 .608 462	1.34 1.147 463
<p><b>R27</b> Usar la base de conocimientos disponible para formular preguntas precisas de investigación y de evaluación de programas, y diseñar métodos apropiados para probarlas.</p> <p>Use the existing knowledge base to formulate clear research and program evaluation questions and design appropriate methods to test them.</p>	2.55 .660 461	.86 1.03 462

Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<p><b>R28</b> Administrar y manejar proyectos de investigación o de evaluación de programas. (p.ej., selección y adiestramiento de personal, supervisión de reclutamiento de participantes y recolección de información, asegurar la integridad del diseño).</p> <p>Administer and manage research and program evaluation projects (e.g., select and train personnel, supervise subject recruitment and data collection, ensure design integrity).</p>	<p>2.48 .697 460</p>	<p>.66 1.04 462</p>
<p><b>R29</b> Recopilar y analizar información usando métodos apropiados de análisis.</p> <p>Collect and analyze data using appropriate methods of analysis.</p>	<p>2.59 .624 461</p>	<p>1.09 1.15 463</p>
<p><b>R30</b> Diseminar hallazgos, implicaciones y limitaciones de investigaciones y programas de evaluación.</p> <p>Disseminate research and program evaluation findings, implications, and limitations.</p>	<p>2.60 .633 462</p>	<p>.77 1.01 463</p>
<p><b>R31</b> Participar en actividades educativas para contribuir a la base del conocimiento y promover su entendimiento (p.ej., preparar revisiones de literatura, desarrollar instrumentos, modelos y teorías, escribir libros de texto).</p> <p>Engage in scholarly activities so as to contribute to the core body of knowledge and enhance understanding (e.g., prepare scholarly reviews; develop instrumentation, models, and theories; write textbooks).</p>	<p>2.66 .604 462</p>	<p>.90 1.04 463</p>
<p><b>R32</b> Interpretar y recomendar la aplicación de hallazgos de investigaciones y de programas de evaluación, tomando en consideración sus fortalezas y limitaciones.</p> <p>Interpret and recommend applications of research and program evaluation findings, with awareness of their strengths and limitations.</p>	<p>2.58 .65 461</p>	<p>.85 1.03 463</p>
<p><b>R33</b> Organizar y participar en reuniones y talleres científicos y profesionales.</p> <p>Organize and participate in scientific and professional meetings and workshops.</p>	<p>2.60 .626 463</p>	<p>1.13 1.04 463</p>
<p><b>R34</b> Preparar propuestas para entidades que otorgan fondos.</p> <p>Prepare proposals for funding agencies.</p>	<p>2.41 .778 464</p>	<p>.51 .89 464</p>

Responsabilidades	Importancia	Frecuencia
	M DS n	M DS n
<p><b>R35</b> Proveer peritaje científico (p.ej., ser editor en revistas profesionales arbitradas, evaluador de propuestas para agencias que otorgan fondos, miembro de Comité de Evaluación de Investigaciones [IRB]).</p> <p>Provide scientific expertise (e.g., serve in an editorial capacity on professional journals or other refereed publications, review proposals for funding agencies, serve on an Institutional Review Board and advisory committees).</p>	<p>2.35 .801 462</p>	<p>.36 .779 463</p>

## Appendix P

### Mean, Standard Deviation, and Number of Respondents Completing the Importance and Usage Rating Scales for each Knowledge Statement for the Total Sample of Respondents

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>Bases Biológicas del Comportamiento</b>		
<b>C1</b> Elementos correlacionados y determinantes de las bases biológicas y neurales del comportamiento (p.ej., neuroanatomía, neurofisiología) correspondientes a percepción, acción, atención, memoria, temperamento y ánimo en estados normales, agudos, crónicos (p.ej., intoxicación por droga) o enfermedad aguda y crónica (p.ej., diabetes, demencia, esquizofrenia y Alzheimer).	2.70 .567 467	2.18 .902 467
<b>C2</b> Clasificación de drogas (p.ej., ansiolíticos, anti-depresivos, anti-psicóticos, estimulantes); farmacocinética (administración, distribución, metabolismo, eliminación) y farmacodinamia (procesos de los sistemas de mensajeros secundarios y terciarios) según correspondan a los efectos de drogas terapéuticas, drogas abusadas, e interacción de drogas.	2.52 .748 467	1.81 1.02 466
<b>C3</b> Guías para tratamiento farmacológico de trastornos mentales (p.ej., trastornos para los cuales hay tratamientos reconocidos, información de eficacia y resultado, y la combinación con tratamientos no-farmacológicos).	2.53 .759 466	1.79 1.09 468
<b>C4</b> Genética del comportamiento, transmisión y expresión de información genética y sus modificaciones (p.ej., interacción gene-ambiente) y la función de esta información para entender los trastornos (p.ej., alcoholismo, autismo) y enfermedades (p.ej., Síndrome de Down, Alzheimer); diferencias poblacionales en la información genética.	2.47 .782 466	1.76 1.02 467
<b>C5</b> Interacción de factores de desarrollo, sexo, etnia, cultura, ambiente y experiencia con las bases biológicas y neurales del comportamiento.	2.67 .610 466	2.13 .906 466
<b>C6</b> Aplicaciones y limitaciones de: métodos de imágenes del cerebro que describen estructuras y funciones (p.ej., MRI, CT); métodos electro fisiológicos; técnicas de seguimiento terapéutico de drogas; metodologías de separación o análisis genético y evaluación neuropsicológica.	2.21 .905 467	1.25 1.10 468

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C7</b> Bases biológicas y neurales de estrés (p.ej., respuesta endocrina glucocorticoide y sus efectos neurales); la relación del estrés con el funcionamiento biológico y psicológico, con particular referencia al estilo de vida y su modificación (p.ej., rehabilitación cardíaca, dejar de fumar) y salud conductual; efectos del estrés en el sistema inmunológico.	2.55 .711 467	1.94 .996 468
<b>Bases Cognoscitivas-Afectivas del Comportamiento</b>		
<b>C8</b> Elementos de la cognición (p.ej., sensación y percepción, atención, aprendizaje, memoria, lenguaje, inteligencia, procesamiento de información, solución de problemas, estrategias para organizar información, funciones ejecutivas).	2.87 .420 465	2.55 .688 463
<b>C9</b> Bases neurales de la cognición, afecto y emoción.	2.69 .590 463	2.17 .862 462
<b>C10</b> Teorías, modelos y principios de aprendizaje y su aplicación (p.ej., terapia cognitivo-conductual, estrategias de adiestramiento, estrategias de desempeño deportivo).	2.78 .480 465	2.48 .738 463
<b>C11</b> Teorías y modelos de memoria (p.ej., sistema de memoria múltiple) y su aplicación (p.ej., uso de mnemónica).	2.47 .713 465	1.79 1.02 463
<b>C12</b> Teorías y modelos de motivación y emoción, y su aplicación (p.ej., auto-regulación, motivación laboral, manejo de coraje, desempeño deportivo).	2.77 .478 465	2.46 .768 464
<b>C13</b> Interrelaciones entre cogniciones, conducta, afecto, temperamento y ánimo (p.ej., funcionamiento saludable, ansiedad y mejoramiento de ejecutoria, satisfacción con el trabajo, estrés y depresión).	2.85 .433 465	2.56 .715 464
<b>C14</b> Influencia de factores psicosociales (p.ej., género, clase social, estilos de familia, etnicidad y cultura) sobre las cogniciones y conducta.	2.84 .414 465	2.58 .710 464
<b>Bases Sociales y Multiculturales del Comportamiento</b>		
<b>C15</b> Cognición social y percepción (p.ej., teoría de atribución y prejuicio, desarrollo de estereotipos).	2.59 .620 463	2.12 .878 462

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
C16 Interacción social (p.ej., relaciones interpersonales, atracción, agresión, altruismo).	2.75 .490 462	2.39 .761 464
C17 Dinámicas de grupo y estructuras organizacionales (p.ej., sistemas escolares y familiares, satisfacción con el trabajo, pensamiento de grupo, conformidad, persuasión) e influencias sociales sobre el funcionamiento individual.	2.71 .538 463	2.28 .877 462
C18 Psicología ecológica-ambiental (p.ej., adaptación de persona-ambiente, diferencias rurales-urbanas, multitudes, contaminación, ruido).	2.37 .749 463	1.66 1.01 463
C19 Perspectiva evolutiva en conducta social.	2.36 .754 463	1.69 1.01 464
C20 Teorías de personalidad.	2.71 .541 462	2.44 .773 463
C21 Asuntos culturales (p.ej., comparaciones transculturales y de clase social, diferencias políticas, conciencia internacional y global).	2.48 .670 463	1.97 .974 465
C22 Causas, manifestaciones, efectos y la prevención y reducción de la opresión (p.ej., racismo y anti-racismo, sexismo, homofobia, conflicto étnico, colonización, persecución política).	2.53 .682 464	1.93 .974 465
C23 Asuntos raciales y étnicos (p.ej., teorías de identidad racial-étnica, diferencias en estilos de comunicación, diferencias en el desarrollo psicosocial, político y económico de individuos, familias, grupos y comunidades).	2.48 .714 464	1.87 .973 465
C24 Orientación sexual (p. ej., desarrollo de identidad sexual, perspectivas, heterosexual, lésbica, homosexual, bisexual, transgénero).	2.61 .651 464	2.07 .919 465
C25 Psicología del género (p.ej., psicología de la mujer, del hombre, desarrollo de identidad de género).	2.58 .675 464	2.04 .948 463



Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C26</b> Asuntos relacionados a impedimentos y rehabilitación (p.ej., impacto psicológico del impedimento, cumplimiento con leyes y reglamentos anti-discrimen, personas con necesidades especiales en el empleo).	2.66 .595 464	2.06 .968 465
<b>Crecimiento y Desarrollo en el Ciclo de Vida</b>		
<b>C27</b> Crecimiento y desarrollo normal a través de la vida (biológico, físico, cognoscitivo, perceptual, social, personalidad, moral y emocional).	2.83 .432 468	2.50 .731 466
<b>C28</b> Función de los genes, genética del comportamiento y efecto de factores ambientales en el estudio del desarrollo.	2.49 .672 468	1.80 .945 467
<b>C29</b> Efecto de los padres, compañeros, hermanos, escuelas, comunidad y medios de comunicación en la socialización de la agresión, conducta pro social, antisocial y auto-estima.	2.86 .396 468	2.57 .701 467
<b>C30</b> Influencia de la interacción entre el individuo y el ambiente (p.ej., social, académico o laboral) a través del tiempo en el desarrollo.	2.77 .472 468	2.48 .725 467
<b>C31</b> Teorías de desarrollo.	2.78 .480 468	2.46 .747 467
<b>C32</b> Influencia de la cultura y las diferencias culturales en el desarrollo (p.ej., determinación de que es normal o atípico, adaptativo o no).	2.73 .511 468	2.34 .773 467
<b>C33</b> Desarrollo y funcionamiento de la familia y su efecto en el individuo (p.ej., ciclo de vida familiar, comunicación entre padres e hijos, relaciones entre hermanos, crianza por los abuelos).	2.84 .435 468	2.57 .716 466
<b>C34</b> Familias no-tradicionales (p.ej., padre-madres solteros, reconstituida) y sus efectos en desarrollo del niño y adolescente.	2.78 .515 468	2.37 .815 466
<b>C35</b> Eventos de la vida que alteran el curso normal del desarrollo (p.ej., accidentes, divorcio, enfermedad en el individuo o sus padres, muerte)	2.82 .431 468	2.56 .731 467

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C36</b> Factores que promueven problemas o adaptabilidad en ambientes de alto riesgo (p.ej., abuso, pobreza, guerra, trauma).	2.80 .467 467	2.43 .773 466
<b>C37</b> Factores de riesgo que predicen un curso problemático de desarrollo (p.ej., deficiencia nutricional, pobre cuidado de salud, exposición a violencia y abuso, falta de apoyo social, pobreza, abuso de sustancias por los padres).	2.80 .489 466	2.44 .779 465
<b>Evaluación y Diagnóstico</b>		
<b>C38</b> Teoría psicométrica, teoría de generalización y conceptos relacionados (p.ej., construcción de pruebas y procedimientos de estandarización, medidas de validez y confiabilidad).	2.63 .605 463	1.99 .934 465
<b>C39</b> Modelos y teorías de evaluación (p.ej., psicométrica, conductual, diagnóstica y otros sistemas de clasificación).	2.71 .562 465	2.23 .895 465
<b>C40</b> Métodos de evaluación (p.ej., muestra de trabajo, observación directa, entrevistas).	2.79 .450 465	2.42 .805 465
<b>C41</b> Pruebas para la medición de características y conductas de individuos (p.ej., funcionamiento social, emocional, conductual, cognoscitivo y neuropsicológico; personalidad; intereses vocacionales; conducta suicida) y su adaptación para uso con varias poblaciones.	2.76 .505 464	2.32 .876 464
<b>C42</b> Asuntos de diagnóstico diferencial e integración de información no-psicológica (p.ej., evaluaciones médicas) en evaluaciones psicológicas.	2.70 .564 463	2.15 .986 464
<b>C43</b> Instrumentos y métodos para la medición de características y desempeño en trabajos, organizaciones y sistemas de cuidado, instituciones educativas y otras entidades sociales (p.ej., evaluación de desempeño, análisis de puesto, evaluación de necesidades).	2.42 .782 464	1.51 1.06 464
<b>C44</b> Métodos para la evaluación de influencias ambientales en individuos, grupos u organizaciones (p.ej., análisis del comportamiento).	2.47 .695 463	1.53 1.07 464
<b>C45</b> Criterios para la selección y adaptación de métodos de evaluación (p.ej., adecuación cultural y lingüística, adaptación transcultural).	2.46 .728 464	1.61 1.05 464

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C46</b> Uso de varios sistemas de clasificación (p.ej., DSM) y sus fundamentos y limitaciones para evaluar el funcionamiento de la persona.	2.73 .572 465	2.39 .903 465
<b>C47</b> Factores que influyen el juicio y diagnóstico para tomar decisiones (p.ej., diferencias grupales, sesgos y diferencias culturales).	2.56 .586 464	2.14 .913 465
<b>C48</b> Epidemiología de los trastornos del comportamiento, proporción de los trastornos en poblaciones clínicas o demográficas; comorbilidad de trastornos psicológicos con condiciones médicas; proporciones de comorbilidad; grupos de edades afectadas; rasgos asociados.	2.58 .639 464	1.85 1.03 464
<b>C49</b> Métodos para la medición de cambio en individuos, parejas, familias, grupos y organizaciones, debido a prevención o intervención (p.ej., evaluaciones pre-post y de seguimiento, detección de recaída, cumplimiento del paciente y estándares organizacionales).	2.63 .595 464	1.84 .979 464
<b>C50</b> Uso de computadoras, internet y otras tecnologías en la realización de pruebas, encuestas y otros tipos de evaluación y diagnóstico; validez, costo-efectividad, aceptación del consumidor.	2.47 .713 464	1.69 1.07 465
<b>Tratamiento, Intervención y Prevención</b>		
<b>C51</b> Asuntos y procesos relacionados a la toma de decisiones de tratamiento basados en la mejor evidencia disponible.	2.84 .476 464	2.33 .920 463
<b>C52</b> Teorías y modelos contemporáneos de tratamiento e intervención.	2.83 .450 466	2.30 .907 465
<b>C53</b> Técnicas e intervenciones de tratamiento y la evidencia de su efectividad para trastornos específicos (p.ej., terapia cognoscitiva para depresión, adiestramiento a padres sobre trastorno oposicional desafiante, integración de psicoterapia y psicofarmacología, cambios organizacionales estructurados).	2.87 .427 467	2.39 .901 466
<b>C54</b> Intervenciones para promover el desarrollo y desempeño de individuos, parejas, familias, grupos y organizaciones (p.ej., entrenamiento a ejecutivos, mejoramiento de desempeño atlético, destrezas para solución de conflictos).	2.75 .537 467	2.14 .949 466

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C55</b> Intervenciones sistémicas y organizacionales (p.ej., para familias, escuelas y comunidades, desarrollo y cambio organizacional).	2.72 .548 467	1.91 1.03 467
<b>C56</b> Procesos y modelos de consultoría para individuos parejas, familias, grupos, organizaciones y comunidades.	2.66 .594 467	1.93 .956 467
<b>C57</b> Intervenciones en administración de recursos humanos (p.ej., manejo de riesgo, adiestramiento, solución de conflicto).	2.45 .766 467	1.54 1.08 467
<b>C58</b> Consejería académica y ocupacional (p.ej., evaluación ocupacional, mejoramiento de hábitos de estudio, manejo de tiempo).	2.50 .707 466	1.80 1.02 466
<b>C59</b> Colaboración interprofesional y referidos apropiados (p.ej., educación, salud física y mental, servicios sociales, forense, industria) considerando las funciones de otros profesionales en todos los niveles de cuidado.	2.69 .589 467	2.21 .912 467
<b>C60</b> Intervenciones alternativas y adjuntas (p.ej., hospitalización, psicofarmacología, grupos de apoyo, sistemas de apoyo espiritual y cultural).	2.70 .571 465	2.04 1.02 466
<b>C61</b> Uso de computadoras, internet y otras tecnologías en la planificación y ofrecimiento de tratamiento, intervención, diseño de factores humanos, documentación clínica y de investigación e intercambio autorizado de información de cliente-paciente.	2.49 .704 466	1.70 1.04 464
<b>C62</b> Estructuras del sistema de cuidado de salud (p.ej., red de proveedores), procesos y procedimientos (p.ej., planes de tratamiento y progreso del paciente) y métodos (p.ej., límites de la cubierta de beneficios, criterios de necesidad médica y de autorización previa).	2.52 .734 466	1.66 1.11 467
<b>C63</b> Políticas y asuntos económicos del cuidado de salud que influyen en los servicios psicológicos (p.ej., fuentes de fondos, consideraciones de costo-beneficio, compensación por costo médico, distribución de recursos de cuidado de salud).	2.45 .762 465	1.35 1.06 466

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C64</b> Prácticas del consumidor (p.ej., efecto del acceso por internet a información de salud, participación del consumidor en la planificación de tratamiento), apoderamiento del paciente.	2.39 .782 466	1.45 1.06 466
<b>C65</b> Promoción de salud, reducción de riesgos y metas (p.ej., reducir abuso de sustancia, factores de riesgos médicos, violencia, deserción escolar, quemazón en el trabajo) y métodos (p.ej., manejo de estrés, técnicas de seguimiento médico).	2.76 .525 466	2.07 .935 466
<b>C66</b> Intervenciones para reducir factores de riesgo y promover adaptabilidad y competencia de individuos viviendo en ambientes de riesgo.	2.73 .554 463	1.93 1.04 465
<b>C67</b> Intervenciones para situaciones de estrés traumático agudo (p.ej., consejería en lugares de desastre, intervención en casos de suicidio, intervención con empleados cesanteados)	2.80 .515 463	1.87 1.03 463
<b>Métodos de Investigación y Estadísticas</b>		
<b>C68</b> Métodos de investigación (p.ej., muestreo, instrumentos, instrucciones a participantes, procedimientos para recolección de información).	2.62 .604 469	1.68 .962 468
<b>C69</b> Diseño de investigación (p.ej., generación de hipótesis, diseño de estudio, pruebas aleatorias controladas).	2.57 .632 469	1.60 .955 468
<b>C70</b> Consideraciones para la selección de instrumentos y validación (p.ej., confiabilidad, validez).	2.65 .618 468	1.73 .985 467
<b>C71</b> Métodos estadísticos y analíticos (p.ej., métodos cualitativo, cuantitativo) y asuntos relacionados (p.ej., poder, tamaño del efecto, interpretación de resultados, generalización, significancia estadística vs clínica).	2.61 .647 469	1.61 .948 468
<b>C72</b> Consideraciones para la evaluación crítica y el uso de resultados de investigación (p.ej., idoneidad de los instrumentos, limitaciones a la generalización, amenazas a la validez interna y externa, fallas del diseño).	2.65 .596 469	1.67 .939 468

Conocimientos Profesionales	Importancia	Uso
	M DS n	M DS n
<b>C73</b> Técnicas y estrategias de evaluación (p.ej., evaluación de necesidad, evaluación de proceso e implantación, programa de evaluación formativa y sumativa, evaluación de resultados, análisis de costo-beneficio, beneficios a la salud pública).	2.59 .647 468	1.53 .968 466
<b>C74</b> Presentación y divulgación de resultados de investigación (p.ej., análisis e interpretación de la información-datos para publicación en una revista o presentación a un grupo profesional, divulgación de resultados utilizando medios apropiados para ello).	2.64 .630 469	1.59 .970 468
<b>Asuntos Éticos, Legales y Profesionales</b>		
<b>C75</b> Código de Ética de la Junta Examinadora de Psicólogos de PR, Código Ética de la Asociación de Psicología de PR (APPR), Principios Éticos y Código de Conducta de la American Psychological Association (APA), entre otros.	2.94 .242 468	2.70 .592 466
<b>C76</b> Normas y guías profesionales para la práctica de la psicología promulgadas por la APPR, la APA y otras entidades profesionales; requisitos para licencia y otras credenciales.	2.92 .320 468	2.61 .685 466
<b>C77</b> Leyes promulgadas en Puerto Rico o los Estados Unidos y decisiones judiciales que sean pertinentes y afecten la práctica de la psicología (p.ej., leyes y reglamentos relacionados a protección familiar y de menores, educación, impedimentos, discriminación, reglamentación para el intercambio electrónico de información del paciente, obligación de informar y comunicación privilegiada, selección y reclutamiento, hospitalización involuntaria, reglamentación de la profesión).	2.92 .303 467	2.43 .785 465
<b>C78</b> Procesos de toma de decisiones éticas (p.ej., solución de conflictos éticos, aspectos éticos de la práctica mediante internet, otros medios electrónicos y medios de comunicación, integración de principios éticos, leyes y normas reglamentadas).	2.84 .455 467	2.26 .913 465
<b>C79</b> Modelos de desarrollo profesional (p.ej., métodos para el desarrollo y mejoramiento de conocimientos, pericia y desempeño, educación continuada, consultoría y supervisión entre pares, reconocimiento de limitaciones propias, idoneidad de credenciales).	2.87 .401 467	2.34 .869 466

## Appendix Q

**Mean, Standard Deviation, and Number of Respondents Completing the Importance Rating Scale for each Knowledge Statement and the Percentage of Statement Endorsement for the Total Sample of Respondents**

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p><b>Bases Biológicas del Comportamiento</b> - conocimiento de (a) bases biológicas y neurales del comportamiento, (b) psicofarmacología, y (c) metodologías que respaldan este cuerpo de conocimientos.</p> <p><b>Biological Bases of Behavior</b> - knowledge of (a) biological and neural bases of behavior, (b) psychopharmacology, and (c) methodologies supporting this body of knowledge.</p>			
<p>C1 Elementos correlacionados y determinantes de las bases biológicas y neurales del comportamiento (p.ej., neuroanatomía, neurofisiología) correspondientes a percepción, acción, atención, memoria, temperamento y ánimo en estados normales, agudos, crónicos (p.ej., intoxicación por droga) o enfermedad aguda y crónica (p.ej., diabetes, demencia, esquizofrenia y Alzheimer).</p> <p>Correlates and determinants of the biological and neural bases of behavior (e.g. neuroanatomy, neurophysiology) pertaining to perception, action, attention, memory, temperament, and mood in normal, acute and chronic disordered states (e.g. drug intoxication) and/or acute and chronic disease (e.g., diabetes, dementia, schizophrenia, and Alzheimer's).</p>	<p>2.70 .567 467</p>	<p>21.00 96</p>	<p>75.00 351</p>
<p>C2 Clasificación de drogas (p.ej., ansiolíticos, anti-depresivos, anti-psicóticos, estimulantes); farmacocinética (administración, distribución, metabolismo, eliminación) y farmacodinamia (procesos de los sistemas de mensajeros secundarios y terciarios) según correspondan a los efectos de drogas terapéuticas, drogas abusadas, e interacción de drogas.</p> <p>Drug classification (e.g., anti-anxiety, anti-depressant, anti-psychotic, stimulant); pharmacokinetics (administration, distribution, metabolism, elimination) and pharmacodynamics (second and third messenger system actions) as they relate to the effects of therapeutic drugs, abused drugs, and drug interactions.</p>	<p>2.52 .748 467</p>	<p>26.00 123</p>	<p>65.00 302</p>

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C3 Guías para tratamiento farmacológico de trastornos mentales (p.ej., trastornos para los cuales hay tratamientos reconocidos, información de eficacia y resultado, y la combinación con tratamientos no-farmacológicos).</p> <p>Guidelines for pharmacological treatment of mental disorders (e.g., disorders for which they are available, recognized treatments, efficacy and outcome information, and combination with non-pharmacological treatments).</p>	2.53 .759 466	25.00 115	66.00 307
<p>C4 Genética del comportamiento, transmisión y expresión de información genética y sus modificaciones (p.ej., interacción gene-ambiente) y la función de esta información para entender los trastornos (p.ej., alcoholismo, autismo) y enfermedades (p.ej., Síndrome de Down, Alzheimer); diferencias poblacionales en la información genética.</p> <p>Behavioral genetics, transmission and expression of genetic information and its modification (e.g., gene-environment interactions), and the role of this information in understanding disorders (e.g., alcoholism, Autism) and diseases (e.g., Down Syndrome, Alzheimer's); population differences in genetic information.</p>	2.47 .782 466	27.00 124	62.00 288
<p>C5 Interacción de factores de desarrollo, sexo, etnia, cultura, ambiente y experiencia con las bases biológicas y neurales del comportamiento.</p> <p>Interaction of developmental, gender, ethnic, cultural, environmental, and experiential factors with the biological and neural bases of behavior.</p>	2.67 .610 466	22.00 102	73.00 341
<p>C6 Aplicaciones y limitaciones de: métodos de imágenes del cerebro que describen estructuras y funciones (p.ej., MRI, CT); métodos electro fisiológicos; técnicas de seguimiento terapéutico de drogas; metodologías de separación o análisis genético y evaluación neuropsicológica.</p> <p>Applications and limitations of: brain imaging methods that describe structure and function (e.g. MRI, CT); electrophysiological methods; therapeutic drug monitoring techniques; genetic screening methodologies, and neuropsychological assessment.</p>	2.21 .905 467	33.00 154	47.00 221



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	M DS n	Moderately Important % n	Important % n
<p>C7 Bases biológicas y neurales de estrés (p.ej., respuesta endocrina glucocorticoide y sus efectos neurales); la relación del estrés con el funcionamiento biológico y psicológico, con particular referencia al estilo de vida y su modificación (p.ej., rehabilitación cardíaca, dejar de fumar) y salud conductual; efectos del estrés en el sistema inmunológico.</p> <p>Biological and neural bases of stress (e.g., endocrine glucocorticoid response and its neural effects); relationship of stress to biological and psychological functioning, with particular reference to lifestyle and lifestyle modification (e.g., cardiac rehabilitation, smoking cessation) and behavioral health; effects of stress on the immune system.</p>	2.55 .711 467	27.00 124	65.00 305
<p><b>Bases Cognoscitivas y Afectivas del Comportamiento</b> - conocimiento de (a) cognición y sus bases neurales, (b) teorías y bases empíricas de aprendizaje, memoria, motivación, afecto, emoción y función ejecutiva y (c) factores que influyen en el desempeño cognoscitivo, experiencia emocional y su interacción.</p> <p><b>Cognitive-Affective Bases of Behavior</b> - knowledge of (a) cognition and its neural bases, (b) theories and empirical bases of learning, memory, motivation, affect, emotion, and executive function, and (c) factors that influence cognitive performance and or emotional experience and their interaction.</p>			
<p>C8 Elementos de la cognición (p.ej., sensación y percepción, atención, aprendizaje, memoria, lenguaje, inteligencia, procesamiento de información, solución de problemas, estrategias para organizar información, funciones ejecutivas).</p> <p>Elements of cognition (e.g., sensation and perception, attention, learning, memory, language, intelligence, information processing, problem-solving, strategies for organizing information, executive function).</p>	2.87 .420 465	9.00 40	89.00 415
<p>C9 Bases neurales de la cognición, afecto y emoción.</p> <p>Neural bases of cognition, affect, and emotion.</p>	2.69 .590 463	20.00 93	75.00 347
<p>C10 Teorías, modelos y principios de aprendizaje y su aplicación (p.ej., terapia cognitivo-conductual, estrategias de adiestramiento, estrategias de desempeño deportivo).</p> <p>Theories, models, and principles of learning and their application (e.g., cognitive behavioral therapy, training strategies, sports performance strategies)</p>	2.78 .480 465	17.00 79	81.00 376

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C11 Teorías y modelos de memoria (p.ej., sistema de memoria múltiple) y su aplicación (p.ej., uso de mnemónica). Theories and models of memory (e.g., multiple memory systems) and their application (e.g., use of mnemonics)	2.47 .713 465	33.00 151	58.00 270
C12 Teorías y modelos de motivación y emoción, y su aplicación (p.ej., auto-regulación, motivación laboral, manejo de coraje, desempeño deportivo). Theories and models of motivation and emotion and their application (e.g., self-regulation, work motivation, anger management, sports performance).	2.77 .478 465	18.00 82	80.00 371
C13 Interrelaciones entre cogniciones, conducta, afecto, temperamento y ánimo (p.ej., funcionamiento saludable, ansiedad y mejoramiento de ejecutoria, satisfacción con el trabajo, estrés y depresión). Interrelationships among cognitions/beliefs, behavior, affect, temperament, and mood (e.g., healthy functioning, performance anxiety, performance enhancement, job satisfaction, stress, and depression)	2.85 .433 465	11.00 52	87.00 404
C14 Influencia de factores psicosociales (p.ej., género, clase social, estilos de familia, etnicidad y cultura) sobre las cogniciones y conducta. Influence of psychosocial factors (e.g., gender, social class, family styles and characteristics, ethnicity and culture) on beliefs/cognitions and behaviors.	2.84 .414 465	14.00 63	85.00 396
<b>Bases Sociales y Multiculturales del Comportamiento</b> - conocimiento de (a) procesos y dinámicas intra e inter personales, intra e inter grupales, (b) teorías de personalidad y (c) asuntos de diversidad. <b>Social and Multicultural Bases of Behavior</b> - knowledge of (a) intrapersonal, interpersonal, intragroup, and intergroup processes and dynamics, (b) theories of personality, and (c) issues in diversity.			
C15 Cognición social y percepción (p.ej., teoría de atribución y prejuicio, desarrollo de estereotipos). Social cognition and perception (e.g., attribution theory and biases, development of stereotypes)	2.59 .620 463	28.00 128	66.00 306

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
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C16 Interacción social (p.ej., relaciones interpersonales, atracción, agresión, altruismo). Social interaction (e.g., interpersonal relationships, attraction, aggression, altruism).	2.75 .490 462	21.00 95	77.00 357
C17 Dinámicas de grupo y estructuras organizacionales (p.ej., sistemas escolares y familiares, satisfacción con el trabajo, pensamiento de grupo, conformidad, persuasión) e influencias sociales sobre el funcionamiento individual. Group dynamics and organizational structures (e.g., school and family systems, job satisfaction, group thinking, conformity, persuasion) and social influences on individual functioning.	2.71 .538 463	22.00 100	75.00 346
C18 Psicología ecológica-ambiental (p.ej., adaptación de persona-ambiente, diferencias rurales-urbanas, multitudes, contaminación, ruido). Environmental/ecological psychology (e.g., person-environment fit, rural-urban differences, crowding, pollution, noise).	2.37 .749 463	37.00 172	51.00 235
C19 Perspectiva evolutiva en conducta social. Evolutionary perspectives on social behavior.	2.36 .754 463	36.00 168	51.00 235
C20 Teorías de personalidad. Theories of personality.	2.71 .541 462	21.00 96	75.00 348
C21 Asuntos culturales (p.ej., comparaciones transculturales y de clase social, diferencias políticas, conciencia internacional y global). Cultural issues (e.g., cross-cultural and social class comparisons, political differences, international and global awareness).	2.48 .670 463	34.00 157	58.00 266
C22 Causas, manifestaciones, efectos y la prevención y reducción de la opresión (p.ej., racismo y anti-racismo, sexismo, homofobia, conflicto étnico, colonización, persecución política). Causes, manifestations, effects, and the prevention and reduction of oppression (e.g., racism and antiracism, sexism, homophobia, ethnic conflicts, colonization, political persecution).	2.53 .682 464	28.00 130	63.00 292

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C23 Asuntos raciales y étnicos (p.ej., teorías de identidad racial-étnica, diferencias en estilos de comunicación, diferencias en el desarrollo psicosocial, político y económico de individuos, familias, grupos y comunidades).</p> <p>Racial and ethnic minority issues (e.g., theories of racial/ethnic identity, differences in communication styles, differences in the psychosocial, political, and economic development of individuals, families, groups, and communities).</p>	2.48 .714 464	30.00 137	60.00 277
<p>C24 Orientación sexual (p. ej., desarrollo de identidad sexual, perspectivas, heterosexual, lesbica, homosexual, bisexual, transgénero).</p> <p>Sexual orientation (e.g., sexual identity development, gay/lesbian/bisexual/transgender perspectives).</p>	2.61 .651 464	25.00 115	69.00 320
<p>C25 Psicología del género (p.ej., psicología de la mujer, del hombre, desarrollo de identidad de género).</p> <p>Psychology of gender (e.g., psychology of women, psychology of men, gender identity development).</p>	2.58 .675 464	25.00 117	67.00 312
<p>C26 Asuntos relacionados a impedimentos y rehabilitación (p.ej., impacto psicológico del impedimento, cumplimiento con leyes y reglamentos anti-discrimen, personas con necesidades especiales en el empleo).</p> <p>Disability and rehabilitation issues (e.g., psychological impact of disability, compliance with anti-discrimination laws and regulations, disabled persons in the workplace).</p>	2.66 .595 464	24.00 112	72.00 332
<p><b>Crecimiento y desarrollo en el ciclo de vida</b> - conocimiento de (a) desarrollo cronológico apropiado a través del ciclo de vida, (b) patrones atípicos de desarrollo y (c) los factores protectores y de riesgo que influyen el proceso de desarrollo de los individuos.</p> <p><b>Growth and Lifespan Development</b> - knowledge of (a) age-appropriate development across the life span, (b) atypical patterns of development, and (c) the protective and risk factors that influence developmental outcomes for individual.</p>			

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<p>C27 Crecimiento y desarrollo normal a través de la vida (biológico, físico, cognoscitivo, perceptual, social, personalidad, moral y emocional).</p> <p>Normal growth and development (biological, physical, cognitive, perceptual, social, personality, moral, and emotional) across the lifespan.</p>	2.83 .432 468	13.00 59	86.00 400
<p>C28 Función de los genes, genética del comportamiento y efecto de factores ambientales en el estudio del desarrollo.</p> <p>Role of genes, behavioral genetics, and impact of environmental factors in the study of development.</p>	2.49 .672 468	33.00 153	59.00 274
<p>C29 Efecto de los padres, compañeros, hermanos, escuelas, comunidad y medios de comunicación en la socialización de la agresión, conducta pro social, antisocial y auto-estima.</p> <p>Impact of parents, peers, siblings, schools, community, and media on socialization of aggression, pro-social behavior, antisocial conduct, and self-esteem.</p>	2.86 .396 468	11.00 49	88.00 412
<p>C30 Influencia de la interacción entre el individuo y el ambiente (p.ej., social, académico o laboral) a través del tiempo en el desarrollo.</p> <p>How development is influenced by the organism-environment interaction over time (e.g., social, academic, or work environment).</p>	2.77 .472 468	19.00 87	80.00 372
<p>C31 Teorías de desarrollo.</p> <p>Theories of development.</p>	2.78 .480 468	17.00 77	81.00 379
<p>C32 Influencia de la cultura y las diferencias culturales en el desarrollo (p.ej., determinación de que es normal o atípico, adaptativo o no).</p> <p>Influence of culture and cultural differences on development (e.g., determination of what is normal and abnormal, adaptive and non-adaptive).</p>	2.73 .511 468	21.00 99	76.00 356

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C33 Desarrollo y funcionamiento de la familia y su efecto en el individuo (p.ej., ciclo de vida familiar, comunicación entre padres e hijos, relaciones entre hermanos, crianza por los abuelos).</p> <p>Family development and functioning and its impact on the individual (e.g., family life cycle, parent-child communication, sibling relationships, grandparenting).</p>	2.84 .435 468	12.00 54	87.00 405
<p>C34 Familias no-tradicionales (p.ej., padre-madres solteros, reconstituida) y sus efectos en desarrollo del niño y adolescente.</p> <p>Nontraditional families (e.g., single parent, reconstituted) and their effects on child and adolescent development.</p>	2.78 .515 468	14.00 67	82.00 385
<p>C35 Eventos de la vida que alteran el curso normal del desarrollo (p.ej., accidentes, divorcio, enfermedad en el individuo o sus padres, muerte)</p> <p>Life event changes that can alter the normal course of development (e.g., injury, divorce, onset of chronic disease or disorder in self or parent, death).</p>	2.82 .431 468	15.00 72	84.00 391
<p>C36 Factores que promueven problemas o adaptabilidad en ambientes de alto riesgo (p.ej., abuso, pobreza, guerra, trauma).</p> <p>Factors that promote problems or resilience in high-risk environments (e.g., abuse, poverty, war, trauma).</p>	2.80 .467 467	15.00 72	82.00 384
<p>C37 Factores de riesgo que predicen un curso problemático de desarrollo (p.ej., deficiencia nutricional, pobre cuidado de salud, exposición a violencia y abuso, falta de apoyo social, pobreza, abuso de sustancias por los padres).</p> <p>Risk factors that predict a problematic developmental course (e.g., nutritional deficiencies, poor health care, exposure to violence and abuse, lack of social support, poverty, poverty, parental alcohol/drug abuse).</p>	2.80 .489 466	14.00 64	83.00 388

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
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<p><b>Evaluación y Diagnóstico</b> - conocimiento de (a) psicometría, (b) modelos e instrumentos de evaluación, (c) métodos de evaluación de individuos, parejas, familias, grupos y organizaciones, y (d) sistemas de clasificación diagnóstica y sus limitaciones.</p> <p><b>Assessment and Diagnosis</b> - knowledge of (a) psychometrics, (b) assessment models and instruments, (c) assessment methods for initial status of and change by individuals, couples, families, groups, and organizations, and (d) diagnostic classification systems and their limitations.</p>			
<p>C38 Teoría psicométrica, teoría de generalización y conceptos relacionados (p.ej., construcción de pruebas y procedimientos de estandarización, medidas de validez y confiabilidad).</p> <p>Psychometric theory, generalizability theory, and related concepts (e.g., test construction and standardization procedures, reliability and validity measures).</p>	2.63 .605 463	26.00 122	69.00 320
<p>C39 Modelos y teorías de evaluación (p.ej., psicométrica, conductual, diagnóstica y otros sistemas de clasificación).</p> <p>Assessment theories and models (e.g., psychometric, behavioral, diagnostic, and other classification systems)</p>	2.71 .562 465	21.00 96	75.00 350
<p>C40 Métodos de evaluación (p.ej., muestra de trabajo, observación directa, entrevistas).</p> <p>Assessment methods (e.g., work sample, direct observation, interviews).</p>	2.79 .450 465	19.00 86	80.00 373
<p>C41 Pruebas para la medición de características y conductas de individuos (p.ej., funcionamiento social, emocional, conductual, cognoscitivo y neuropsicológico; personalidad; intereses vocacionales; conducta suicida) y su adaptación para uso con varias poblaciones.</p> <p>Tests for the measurement of characteristics and behaviors of individuals (e.g., social, emotional, and behavioral functioning; cognitive and neuropsychological functioning; personality; vocational interest; suicide evaluation), and the adaptation of these tests for use with various populations.</p>	2.76 .505 464	18.00 82	80.00 369
<p>C42 Asuntos de diagnóstico diferencial e integración de información no-psicológica (p.ej., evaluaciones médicas) en evaluaciones psicológicas.</p> <p>Issues of differential diagnosis and integration of non-psychological information (e.g., medical evaluations) into psychological assessment.</p>	2.70 .564 463	22.00 103	75.00 345

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C43 Instrumentos y métodos para la medición de características y desempeño en trabajos, organizaciones y sistemas de cuidado, instituciones educativas y otras entidades sociales (p.ej., evaluación de desempeño, análisis de puesto, evaluación de necesidades).</p> <p>Instruments and methods for the measurement of characteristics and performance of jobs, organizations and systems of care, and educational and other social institutions (e.g., performance appraisal, job analysis, need assessment).</p>	2.42 .782 464	30.00 138	58.00 267
<p>C44 Métodos para la evaluación de influencias ambientales en individuos, grupos u organizaciones (p.ej., análisis del comportamiento).</p> <p>Methods for evaluating environmental/ecological influences on individuals, groups or organizations (e.g., analysis of behavior).</p>	2.47 .695 463	34.00 159	57.00 264
<p>C45 Criterios para la selección y adaptación de métodos de evaluación (p.ej., adecuación cultural y lingüística, adaptación transcultural).</p> <p>Criteria for selection and adaptation of assessment methods (e.g., cultural and language appropriateness, trans-cultural adaptation).</p>	2.46 .728 464	30.00 138	59.00 273
<p>C46 Uso de varios sistemas de clasificación (p.ej., DSM) y sus fundamentos y limitaciones para evaluar el funcionamiento de la persona.</p> <p>Utilization of various classification systems (e.g., DSM) and their underlying rationales and limitations for evaluating client functioning.</p>	2.73 .572 465	17.00 81	78.00 364
<p>C47 Factores que influyen el juicio y diagnóstico para tomar decisiones (p.ej., diferencias grupales, sesgos y diferencias culturales).</p> <p>Factors influencing judgment and diagnostic decision-making (e.g., group differences, cultural biases and differences).</p>	2.56 .586 464	26.00 119	70.00 326



Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C48 Epidemiología de los trastornos del comportamiento, proporción de los trastornos en poblaciones clínicas o demográficas; comorbilidad de trastornos psicológicos con condiciones médicas; proporciones de comorbilidad; grupos de edades afectadas; rasgos asociados.</p> <p>Epidemiology of behavioral disorders, base rates of disorders in clinical or demographic populations; comorbidity mental illness with medical disorders; comorbidity rates, age ranges affected; associated features.</p>	2.58 .639 464	29.00 135	65.00 301
<p>C49 Métodos para la medición de cambio en individuos, parejas, familias, grupos y organizaciones, debido a prevención o intervención (p.ej., evaluaciones pre-post y de seguimiento, detección de recaída, cumplimiento del paciente y estándares organizacionales).</p> <p>Methods for the measurement of individual, couples, family, group, and organizational change due to intervention or prevention efforts (e.g., pre-, post-, and follow-up assessment, detection of relapse, patient compliance, organizational benchmarking).</p>	2.63 .595 464	27.00 126	69.00 318
<p>C50 Uso de computadoras, internet y otras tecnologías en la realización de pruebas, encuestas y otros tipos de evaluación y diagnóstico; validez, costo-efectividad, aceptación del consumidor.</p> <p>Use of computers, the internet, and related technology in implementing tests, surveys, and other forms of assessment and diagnostic evaluation; validity, cost effectiveness, consumer acceptability.</p>	2.47 .713 464	32.00 150	58.00 270
<p><b>Tratamiento, Intervención y Prevención</b> - conocimiento de (a) intervenciones para situaciones o trastornos de individuos, parejas, familias, grupos, organizaciones y comunidades en diversas poblaciones, (b) teorías de intervención y prevención, (c) prácticas reconocidas y (d) modelos y procesos de consultoría.</p> <p><b>Treatment, Intervention, and Prevention</b> - knowledge of (a) individual, couple, family, group, organizational, or community interventions for specific concerns/disorders in diverse populations, (b) intervention and prevention theories, (c) best practices, and (d) consultation models and processes.</p>			

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
C51 Asuntos y procesos relacionados a la toma de decisiones de tratamiento basados en la mejor evidencia disponible. Treatment decision making processes and issues based on best available evidence.	2.84 .476 464	10.00 45	88.00 406
C52 Teorías y modelos contemporáneos de tratamiento e intervención. Contemporary theories/models of treatment/intervention.	2.83 .450 466	12.00 56	86.00 401
C53 Técnicas e intervenciones de tratamiento y la evidencia de su efectividad para trastornos específicos (p.ej., terapia cognoscitiva para depresión, adiestramiento a padres sobre trastorno oposicional desafiante, integración de psicoterapia y psicofarmacología, cambios organizacionales estructurados). Treatment techniques/interventions and the evidence for their effectiveness for specific disorders (e.g., cognitive therapy for depression, parent training for oppositional defiant disorder, approaches to integrating psychotherapy and psychopharmacology, structured organizational changes).	2.87 .427 467	8.00 38	90.00 419
C54 Intervenciones para promover el desarrollo y desempeño de individuos, parejas, familias, grupos y organizaciones (p.ej., entrenamiento a ejecutivos, mejoramiento de desempeño atlético, destrezas para solución de conflictos). Interventions to enhance growth and performance for individuals, couples, families, groups, and organizations (e.g., executive coaching, enhancement of athletic performance, conflict resolution skills).	2.75 .537 467	17.00 81	79.00 369
C55 Intervenciones sistémicas y organizacionales (p.ej., para familias, escuelas y comunidades, desarrollo y cambio organizacional). Systems and organizational interventions (e.g., systemic family interventions, school or community systems interventions, organizational development and change).	2.72 .548 467	20.00 93	76.00 357

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C56 Procesos y modelos de consultoría para individuos parejas, familias, grupos, organizaciones y comunidades.</p> <p>Consultation models and processes for individuals, couples, families, groups, organizations, and communities.</p>	2.66 .594 467	23.00 109	72.00 336
<p>C57 Intervenciones en administración de recursos humanos (p.ej., manejo de riesgo, adiestramiento, solución de conflicto).</p> <p>Human resource management interventions (e.g., risk management, conflict resolution).</p>	2.45 .766 467	29.00 133	60.00 279
<p>C58 Consejería académica y ocupacional (p.ej., evaluación ocupacional, mejoramiento de hábitos de estudio, manejo de tiempo).</p> <p>Academic and career counseling (e.g., career assessment, career counseling, improving study habits, time management).</p>	2.50 .707 466	29.00 134	61.00 286
<p>C59 Colaboración interprofesional y referidos apropiados (p.ej., educación, salud física y mental, servicios sociales, forense, industria) considerando las funciones de otros profesionales en todos los niveles de cuidado.</p> <p>Inter-professional cooperation and appropriate referrals (e.g., education, health, mental health, social services, forensics, business and industry) including the roles of other professionals at all levels of care.</p>	2.69 .589 467	20.00 91	75.00 351
<p>C60 Intervenciones alternativas y adjuntas (p.ej., hospitalización, psicofarmacología, grupos de apoyo, sistemas de apoyo espiritual y cultural).</p> <p>Adjunctive and alternative interventions (e.g., inpatient or partial hospitalization, psychopharmacology, support groups, and spiritual and indigenous support systems).</p>	2.70 .571 465	21.00 96	75.00 350

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C61 Uso de computadoras, internet y otras tecnologías en la planificación y ofrecimiento de tratamiento, intervención, diseño de factores humanos, documentación clínica y de investigación e intercambio autorizado de información de cliente-paciente.</p> <p>Use of computers, the internet, and related electronic technologies in planning and delivery of treatment/intervention, human factors design, clinical/research documentation, and authorized exchange of client/patient information.</p>	2.49 .704 466	32.00 150	59.00 277
<p>C62 Estructuras del sistema de cuidado de salud (p.ej., red de proveedores), procesos y procedimientos (p.ej., planes de tratamiento y progreso del paciente) y métodos (p.ej., límites de la cubierta de beneficios, criterios de necesidad médica y de autorización previa).</p> <p>Healthcare system structures (e.g., provider networks), processes and procedures (e.g., treatment plans and patient progress), and methods (e.g., specification of benefit coverage limitations, medical necessity criteria, and need for prior authorization).</p>	2.52 .734 466	27.00 124	64.00 299
<p>C63 Políticas y asuntos económicos del cuidado de salud que influyen en los servicios psicológicos (p.ej., fuentes de fondos, consideraciones de costo-beneficio, compensación por costo médico, distribución de recursos de cuidado de salud).</p> <p>Healthcare economics and policies impacting psychological services (e.g., funding sources, cost/benefit considerations, medical cost-offset; health care resource allocation).</p>	2.45 .762 465	30.00 139	59.00 275
<p>C64 Prácticas del consumidor (p.ej., efecto del acceso por internet a información de salud, participación del consumidor en la planificación de tratamiento), apoderamiento del paciente.</p> <p>Consumerism (e.g., impact of internet access to healthcare information, consumer involvement in treatment planning); patient empowerment.</p>	2.39 .782 466	32.00 147	55.00 256

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C65 Promoción de salud, reducción de riesgos y metas (p.ej., reducir abuso de sustancia, factores de riesgos médicos, violencia, deserción escolar, quemazón en el trabajo) y métodos (p.ej., manejo de estrés, técnicas de seguimiento médico).</p> <p>Health promotion, risk reduction, and goals (e.g., reduce substance abuse; reduce medical risk factors/promote health; reduce violence, school dropout, job burnout) and methods (e.g., stress management, medical monitoring techniques).</p>	2.76 .525 466	17.00 81	79.00 370
<p>C66 Intervenciones para reducir factores de riesgo y promover adaptabilidad y competencia de individuos viviendo en ambientes de riesgo.</p> <p>Interventions to reduce risk factors and to increase resilience and competence of individuals living in at-risk environments.</p>	2.73 .554 463	19.00 88	77.00 358
<p>C67 Intervenciones para situaciones de estrés traumático agudo (p.ej., consejería en lugares de desastre, intervención en casos de suicidio, intervención con empleados cesanteados).</p> <p>Interventions for acute traumatic stress situations (e.g., counseling at disaster site; suicidal intervention, dismissed employees)</p>	2.80 .515 463	13.00 60	84.00 389
<p><b>Métodos de Investigación y Estadísticas</b> - conocimiento de (a) diseño de investigación, metodología y evaluación de programas, (b) selección y validación de instrumentos y (c) modelos, supuestos y procedimientos estadísticos.</p> <p><b>Research Methods and Statistics</b> - knowledge of (a) research design, methodology, and program evaluation, (b) instrument selection and validation, and (c) statistical models, assumptions, and procedures.</p>			
<p>C68 Métodos de investigación (p.ej., muestreo, instrumentos, instrucciones a participantes, procedimientos para recolección de información).</p> <p>Research methods (e.g., sampling, instrument, instructions for research subjects, data collection procedures).</p>	2.62 .604 469	28.00 132	67.00 315

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C69 Diseño de investigación (p.ej., generación de hipótesis, diseño de estudio, pruebas aleatorias controladas).</p> <p>Research design (e.g., hypothesis generation; research designs; randomized controlled trials).</p>	2.57 .632 469	30.00 140	64.00 301
<p>C70 Consideraciones para la selección de instrumentos y validación (p.ej., confiabilidad, validez).</p> <p>Considerations for instrument selection and validation (e.g., reliability and validity).</p>	2.65 .618 468	25.00 115	71.00 333
<p>C71 Métodos estadísticos y analíticos (p.ej., métodos cualitativo, cuantitativo) y asuntos relacionados (p.ej., poder, tamaño del efecto, interpretación de resultados, generalización, significancia estadística vs clínica).</p> <p>Statistics and analytic methods (e.g., qualitative, quantitative methods) and related issues (e.g., power, effect size, interpretation of findings, generalizability, clinical versus statistical significance).</p>	2.61 .647 469	27.00 125	68.00 318
<p>C72 Consideraciones para la evaluación crítica y el uso de resultados de investigación (p.ej., idoneidad de los instrumentos, limitaciones a la generalización, amenazas a la validez interna y externa, fallas del diseño).</p> <p>Considerations for critical appraisal and utilization of research findings (e.g., technical adequacy, limitations to generalizations, threats to internal and external validity, design flaws).</p>	2.65 .596 469	24.00 114	71.00 333
<p>C73 Técnicas y estrategias de evaluación (p.ej., evaluación de necesidad, evaluación de proceso e implantación, programa de evaluación formativa y sumativa, evaluación de resultados, análisis de costo-beneficio, beneficios a la salud pública).</p> <p>Evaluation strategies and techniques (e.g., needs assessment, process/implementation evaluation, formative and summative assessment program evaluation, outcome evaluation, cost-benefit analysis, public health benefit).</p>	2.59 .647 468	29.00 135	66.00 308

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C74 Presentación y divulgación de resultados de investigación (p.ej., análisis e interpretación de la información-datos para publicación en una revista o presentación a un grupo profesional, divulgación de resultados utilizando medios apropiados para ello).</p> <p>Presentation and dissemination of research findings (e.g., analyzing the data and interpreting results for publication in a journal or presentation to professional colleagues, dissemination of results via various appropriate avenues).</p>	2.64 .630 469	24.00 110	71.00 334
<p><b>Asuntos Éticos, Legales y Profesionales</b> - conocimiento de (a) códigos de ética, (b) normas profesionales para la práctica, (c) mandatos y restricciones legales, (d) guías para la toma de decisiones éticas, y (e) adiestramiento y supervisión profesional.</p> <p><b>Ethical, Legal, and Professional Issues</b> - knowledge of (a) code of ethics, (b) professional standards for practice, (c) legal mandates and restrictions, (d) guidelines for ethical decision-making, and (e) professional training and supervision.</p>			
<p>C75 Código de Ética de la Junta Examinadora de Psicólogos de PR, Código Ética de la Asociación de Psicología de PR (APPR), Principios Éticos y Código de Conducta de la American Psychological Association (APA), entre otros.</p> <p>The Puerto Rico Psychologists Examining Board Code of Ethics, Puerto Rico Psychology Association (APPR) Code of Ethics, APA Ethical Principles of Psychologists and Code of Conduct among others.</p>	2.94 .242 468	5.00 25	94.00 442
<p>C76 Normas y guías profesionales para la práctica de la psicología promulgadas por la APPR, la APA y otras entidades profesionales; requisitos para licencia y otras credenciales.</p> <p>Professional standards and guidelines for the practice of psychology promulgated by the APPR, APA and other professional entities; credentialing requirements.</p>	2.92 .320 468	6.00 30	93.00 434

Conocimientos Profesionales/Professional Knowledge	Importance	Endorsement	
	M DS n	Moderately Important % n	Important % n
<p>C77 Leyes promulgadas en Puerto Rico o los Estados Unidos y decisiones judiciales que sean pertinentes y afecten la práctica de la psicología (p.ej., leyes y reglamentos relacionados a protección familiar y de menores, educación, impedimentos, discriminación, reglamentación para el intercambio electrónico de información del paciente, obligación de informar y comunicación privilegiada, selección y reclutamiento, hospitalización involuntaria, reglamentación de la profesión).</p> <p>Pertinent laws/statutes promulgated in Puerto Rico or the United States and/or judicial decisions that affect psychological practice (e.g., laws and regulations relating to family and child protection, education, disabilities, discrimination, regulations for electronic exchange of patient information, duty to warn and privileged communication, selection and recruitment, commitment and least restrictive care, practice regulations, licensure regulations).</p>	2.92 .303 467	7.00 33	93.00 432
<p>C78 Procesos de toma de decisiones éticas (p.ej., solución de conflictos éticos, aspectos éticos de la práctica mediante internet, otros medios electrónicos y medios de comunicación, integración de principios éticos, leyes y normas reglamentadas).</p> <p>Ethical decision-making process (e.g., resolution of conflicts involving ethical issues, problems and ethics of practice on the internet and in the media, integration of ethical principles and legal/regulatory standards).</p>	2.84 .455 467	12.00 54	86.00 403
<p>C79 Modelos de desarrollo profesional (p.ej., métodos para el desarrollo y mejoramiento de conocimientos, pericia y desempeño, educación continuada, consultoría y supervisión entre pares, reconocimiento de limitaciones propias, idoneidad de credenciales).</p> <p>Models and approaches for professional development (e.g., methods for developing, updating, and enhancing knowledge, proficiencies and performance, continuing education, peer consultation and supervision; recognition of self-limits; appropriateness of credentials).</p>	2.87 .401 467	10.00 45	89.00 415



