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PSICOLOGÍA Y PSICOFARMACOLOGÍA

EXPERIENCIA NORTEAMERICANA, PRESCRIPCIÓN DE PSICOFÁRMACOS POR PSICÓLOGOS
REQUISITOS LEGALES - PROGRAMAS DE POSTGRADO EN PSICOFARMACOLOGÍA

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introduction

Psychology and Psychopharmacology

When Dr. Lemos asked me to collect relevant articles to compile a monographic issue for Papeles del Psicólogo on the movement to attain prescription authority for psychologists, my first reaction was to question how I might communicate to colleagues outside of the United States the complexities of a movement which started decades ago and has not only evolved during that period, but continues to grow and to metamorphizes as I write these very lines. What is certain is that the social forces that propagate this movement are multidimensional and at times adversarial, and for every catalyst that propels the proposal forward there is a counteraction that attempts to buffer it. Nonetheless, the movement towards extending prescription privileges to psychologists has grown to such proportions that it is beginning to extend beyond the confines of America and is causing echoes within other communities.

Psychiatry has been unable to respond to the growing demand for psychoactive drugs, and the list of patients waiting to see a psychiatrist grows longer every year, resulting in the necessity to refer the majority of psychiatric cases requiring medication management to general practitioners. In the best of cases these patients are seen by a physician who attempts to diagnose and treat psychiatric conditions without specialty training in such illnesses; in the worst of cases, those patients who live in rural areas for example, there is no physician at all to attend to their mental/emotional symptoms. In contrast, there are large numbers of psychologists, in urban and rural areas, who are trained and available to treat patients who suffer from the entire range of psychiatric conditions. A growing number of these psychologists have "recycled" to be able to prescribe psychoactive medications, completing several years of postgraduate training in psychopharmacology that is equal to, and in many cases is more stringent than, that required of psychiatrists. The lack of psychiatrists, especially child psychiatrists, is not a phenomenon restricted to the United States, but is observed worldwide. In France, for example, 80% of all psychoactive medication is prescribed by general practitioners (Le Monde, June 29th, 2006)[1]. The imperative that the psychology profession should come forward and shoulder the needs of millions of patients who would otherwise receive inadequate care requires a concerted effort to support psychologists who are qualified to be deployed as fully qualified clinical psychopharmacologists.

The present movement in the United States began in 1984 when Senator Daniel Inouye, from Hawaii, challenged psychologists to prepare themselves to respond to the growing demand for psychoactive drugs. The American Psychological Association (APA) responded in kind in 1989, adopting the official position that psychologists are particularly prepared to diagnose and treat mental illness and, with proper additional training, are competent to prescribe medications relevant to the treatment of mental/emotional syndromes. The APA defined the postdoctoral curriculum necessary for preparing psychologists to become specialized in psychopharmacology, and several university psychology departments, in collaboration with faculties of pharmacy, developed postgraduate studies that conformed to APA criteria. At the same time, the United States Department of Defense (DOD) initiated a program that trained uniform psychologists to prescribe within the military. After the success of the DOD program was demonstrated through years of psychologist prescribing, the States of New Mexico and Louisiana, as well as the Territory of Guam, approved legislation that authorized psychologists with postgraduate training in psychopharmacology to prescribe psychoactive medication. At the present, ten other states have legislation pending that would allow psychologists within their respective jurisdictions to prescribe medication. Currently, there are over fifty prescribing psychologists in the United States who have written thousands of prescriptions without incident. There are hundreds of psychologists who are currently attending university programs to graduate with the postdoctoral diploma "Master in Clinical Psychopharmacology", eventually to become licensed within their respective states as "Medical Psychologists", a new specialty within the profession of psychology.

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[1] See also: *American Journal of Psychiatry (Volume 163, #7, 2006).* "Changing Profiles of Service Sectors Used for Mental Health Care in the United States", in which it is documented that the majority of Americans receive their mental health care from their primary care physician.

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PSYCHOLOGY AND PSYCHOPHARMACOLOGY: NATURAL PARTNERS IN HOLISTIC HEALTHCARE

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The "prescription movement", involving psychologists gaining prescriptive authority in the United States, is not a new phenomenon. For approximately 25 years, psychologists and outside interested parties have been calling for this movement toward prescriptive privileges. The elected representatives of professional psychology have consistently supported this expansion of practice; voting has overwhelmingly endorsed the development of training models and legislation to enable psychologists with advanced training to prescribe. Since 1994, psychologists have been actively prescribing in the military with no significant negative outcomes and with evidence that they are practicing in a more holistic manner than psychiatric colleagues. Likewise, more recent data for psychologists prescribing in New Mexico, Louisiana, or Guam demonstrate that psychologists can prescribe effectively, and safely, within a biopsychosocial model of healthcare. Of particular note is that psychologists are 8 to 10 times less likely than physicans to prescribe for the same severity and type of presenting mental health conditions. Psychologists have begun to demonstrate that a true biopsychosocial approach, involving psychotherapy, psychological testing, and psychosocial approaches to treating mental illness is viable and effective. Prescribing psychologists view psychotropic medication as only one treatment option among many, permitting increased flexibility and involvement of patient choice. Marked reductions in healthcare cost have been demonstrated and are anticipated to continue due to this holistic approach to mental healthcare. This expansion of practice shows great promise and should be embraced to nurture increased access to cost-effective care and improved quality of mental health care.
Key words: *Prescription movement, prescriptive authority, psychopharmacology postdoctoral program*

El "movimiento de la prescripción", relativo a los psicólogos que reclaman la capacidad legal de prescribir psicofármacos en los Estados Unidos, no es un fenómeno nuevo. Durante aproximadamente 25 años, los psicólogos y otras personas ajenas interesadas han estado reclamando este movimiento hacia los privilegios prescriptivos. Los representantes electos de la psicología profesional han apoyado constantemente esta ampliación de la práctica; una mayoría aplastante de los votos han respaldado el desarrollo de modelos de formación y legislación para que los psicólogos con formación avanzada puedan prescribir. Desde 1994, los psicólogos han estado prescribiendo de forma activa en el ejército sin ningún resultado negativo significativo, y con evidencias de que están ejerciendo de forma más holística que sus colegas psiquiatras. De la misma forma, datos más recientes sobre los psicólogos que prescriben en Nuevo México, Lousiana o Guam demuestran que los éstos pueden hacerlo de forma eficaz y segura, dentro de un modelo biopsicosocial de salud. Es particularmente interesante que la probabilidad de que los psicólogos prescriban es de 8 a 10 veces menor que la de los médicos, para la misma gravedad y tipo de trastorno mental. Los psicólogos han empezado a demostrar que un verdadero enfoque biopsicosocial, que implica psicoterapia, evaluación psicológica, y enfoques psicosociales, es viable y efectivo para el tratamiento de la enfermedad mental. Los psicólogos que prescriben ven la medicación psicotrópica sólo como una opción dentro de muchas, permitiendo una mayor flexibilidad e implicación del paciente en su elección. Se han demostrado importantes reducciones en el coste de la asistencia sanitaria y se prevé que continúe gracias a este enfoque holístico de salud mental. Esta ampliación de la práctica tiene grandes expectativas y debería ser aprovechada para fomentar el aumento en el acceso a tratamientos rentables y la mejora de la calidad de la asistencia en salud mental.
Palabras clave: *Movimiento de la prescripción, capacidad legal para prescribir, programa postdoctoral en Psicofarmacología*

LOOKING BACK: THE HISTORY OF PSYCHOLOGY AND PSYCHOPHARMACOLOGY

When the topic of psychology's drive toward prescriptive authority is raised in the United States, there are several common reactions. The general public is often surprised because most people assume that psychologists *already* prescribe medications, partly because they confuse psychologists and psychiatrists and partly because they view psychologists as learned health professionals, as doctors, and assume this means they wield prescriptive authority. In the field, some older psychologists tend to believe that the movement is a recent one, more like a fad, and may soon die out, although this reaction has lessened in recent years due to advances in states such as New

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Mexico and Louisiana. A minority of psychologists have a very negative reaction, similar to the reaction several decades ago of some psychologists when it was proposed that psychologists could conduct psychotherapy in addition to performing psychodiagnostics. These psychologists view medications as "the enemy" of therapy and have concerns about how prescribing medications may alter the identity and discipline of psychology. Young psychologists, in graduate schools or recent graduates, largely react with excitement and a sense of possibility of their own futures as holistic or integrated healthcare providers.

In reviewing what is called the "prescriptive movement" in the United States, it is important to realize that the history of psychopharmacology and the drive towards prescription privileges in U.S. psychology is not a new phenomenon. This history is useful for understanding how psychologists could be genuine holistic healthcare providers practicing from a true biopsychosocial model as well as for understanding that calls for this expansion of practice have come from non-psychologists interested and invested in the adequacy of mental health care in America.

The quest for prescriptive authority for U.S. psychologists began in November, 1984, at the annual convention of the Hawaii Psychological Association (HPA). At that convention, U.S. Senator Daniel Inouye urged members of the HPA to seek prescriptive authority for psychologists. The Senator's concern and push was to improve the delivery of mental health care, primarily in rural areas of his state. As a non-psychologist, Senator Inouye was responding to the inadequate existing system of care; he saw psychologists as learned professionals who could provide valuable public service by increasing the availability of comprehensive, quality mental health care. In 1985, Richard Samuels, president of Division 42 (Independent Practice) of the American Psychological Association (APA) also urged that prescriptive authority for psychologists be sought in order to improve access to healthcare. These events demonstrate that legislative and professional awareness was increasing for the potential ways that prescribing psychologists could improve healthcare. Following this trend, in fiscal year 1989, the U.S. Congress appropriated money to fund the Psychopharmacology Defense Project (PDP).

The PDP was essentially a research effort; Congress believed that there was a significant need to improve access to psychiatric services, including the use of medications, to its service personnel. The purpose of the PDP was to "test" or evaluate whether or not psychologists could be adequately trained to provide these services in a cost effective way for the U.S. military. Although there has been some debate about the cost of the training program (see Vector Research, Inc., 1996; U.S. General Accounting Office, 1997; American College of Neuropsychopharmacology, 2000), there is no disagreement in the evaluation reports about the clinical effectiveness of the PDP graduates. The original PDP training program was a shortened form of medical school training. Based upon feedback from the PDP graduates, this training program was later shortened and modified to fit a more biopsychosocial perspective (see below for more details).

Opponents of this expansion of practice within the field have attempted to argue that the majority of psychologists do not support such a movement. This conclusion is inaccurate. In 1989 the American Psychological Association (APA) endorsed research into and supported the development of training curricula to provide the most appropriate and effective methods for psychologists to be able to safely prescribe. This was to be APA's highest priority. The APA Council of Representatives voted 118 to 2 to establish a Task Force on Psychopharmacology, an overwhelming margin of support. Further, based, in part, on data emerging from the PDP, the Task Force announced, in 1992, that training was feasible and that such training would create "a new healthcare professional" with potential for dramatically improved patient care and new advances in treatments. Three levels of training were proposed with only psychologists completing the highest level of training being able to prescribe independently. Following positive preliminary outcomes from the PDP, Indiana, in 1993, permitted PDP/federally trained graduates to practice in that state. The first psychologists graduated from the PDP in 1994 (Cullen & Newman, 1997).

In response to these developments, the APA Council of Representatives, the highest decision-making body in the association, endorsed psychopharmacology for psychologists in 1995 and called for model legislation and implementation of the training curriculum. Subsequently, the APA Council adopted a model curriculum and legislative bill in 1996. Also, in 1997, the APA Council requested that the College of Professional Psychology develop a national exam to ensure consistency in the knowledge base of trained psychologists and to permit state boards to require this

minimum national certification as a requirement for prescriptive authority. Having such an exam increases the credibility of training for prescribing psychologists. This exam was produced by 2000 and has been incorporated into the legislative statutes authorizing psychologists to prescribe in both New Mexico and Louisiana (Munsey, 2006). The APA Graduate Student organization (APAGS), representing the future of the profession, formally endorsed the APA position regarding prescribing privileges for psychologists in 1998 and the organization continues to educate students about this future option for psychological practice (Williams-Nickelson, 2000).

These events set the stage for legal prescribing authority for psychologists to be granted. In the American territory of Guam, the territorial legislature overrode a Governor's veto in 1998 to provide psychologists with limited prescriptive authority. By January of 1999, psychologists in Guam had obtained the right to prescribe psychotropic medications under the supervision of a physician (*Allied Health Practices Act*, 1998). New Mexico's Governor Gary Johnson signed a bill into law in March, 2002 giving psychologists prescriptive authority; Louisiana Governor Kathleen Blanco signed psychologist prescriptive authority legislation into law in May, 2004 (Holloway, 2004).

Efforts continue around the United States to expand prescription authority in additional jurisdictions. One review noted that, as of 2002, prescription task forces had been developed in at least 31 states, 13 states had introduced legislation to permit psychologists to prescribe, and 11 nationwide training programs had been developed (Daw, 2002).

As recently as this year (2006), the Hawaii Psychological Association and its allies came close to passing a bill to authorize psychologist prescribing in that state. The original bill was approved by the Hawaii Senate Health Committee, but it was deferred through the Senate Commerce, Consumer Protection, and Housing Committee. The compromise was a legislative resolution that called for the legislature's research committee to report on the curriculum and safety issues with psychologist prescribing, to evaluate the performance of PDP graduates, and to examine the experience of Louisiana and New Mexico. A report is to be delivered to the Hawaii legislature by next year (Munsey, 2006). Most notably, the original prescribing bill had the support of the Chair of the Senate Health Committee (a non-psychologist), and the Hawaii Primary Care Association, which ran newspaper articles in support of the bill. Additionally, primary care physicians and medical directors working in community health clinics testified in favor of the bill, focusing on discussions of inadequate access to mental health care in many parts of Hawaii. Clearly, the need for services exists, and many professionals outside the field of psychology as well as within the field view this as an important step in improving healthcare delivery.

Efforts are also being made to achieve improvement in holistic healthcare using legal means. In February of 2006, a lawsuit was filed in Federal court in Los Angeles alleging that patients in California are having their constitutional rights violated by not receiving constitutionally adequate treatment due to the state's and country's inability to provide competent psychiatric care to patients who are in state mental hospitals, in county jails, and in county mental health facilities. Three plaintiffs allegedly harmed by the State of California contend that the necessary numbers of competent psychiatrists are not available and never will be due to the declining numbers of practicing psychiatrists and the continued unattractiveness of psychiatry as a specialty to American medical school graduates. The lawsuit asks the court to amend a state law that prohibits psychologists from prescribing medication. In particular, the plaintiffs are asking the State of California to grant appropriately trained psychologists prescriptive authority as a remedy to California's access to care problem. Allowing appropriately trained psychologists to prescribe medication is the least restrictive way that California can provide constitutionally adequate treatment (*Walker, Jones, and Larson v State of California et al.*, County of Los Angeles, 2006). Currently, this lawsuit is proceeding, but no court decision has been made (Howard Rubin, personal communication, September 13, 2006).

Organized medicine, and psychiatry in particular, has opposed psychologists receiving prescription privileges. For decades, organized medicine has consistently opposed the expansion of practice for allied health professionals including nurses, optometrists, podiatrists, and others; thus, nothing is happening to psychology that has not occurred to other disciplines in the past. The arguments used by medicine against psychology's expansion of practice are likewise traditional and routine: that granting these privileges will result in harm to patients and that if psychologists want to practice medicine they

should attend medical school. However, medical history suggests that, although it may take time, medicine has consistently lost these types of struggles and is anticipated to continue this pattern.

Concerns within the field have argued that by learning to prescribe, psychologists will fall prey to the same market forces that have raised serious public doubts about the use of medications, the validity of drug trials, and collusion between medical research and pharmaceutical companies. To help prepare the profession for these issues and to begin an early dialogue concerning the use of pharmacotherapy, a Task Force of Division 55 of APA produced a set of draft practice guidelines for the collaborative and independent practice of pharmacotherapy by psychologists (McGrath, Berman, LeVine, Mantell, Rom-Rymer, Sammons, Stock, and Ax, 2005). These guidelines were reviewed by the Board of Division 55 and approved in June, 2005 and have recently completed the period of open comment. After review of the comments, the guidelines will proceed to APA review where they could become national policy. Among other discussions, the guidelines recommend that collaborating or prescribing psychologists adhere to the following general principles:

- ✔ sufficient education and training to be competent
- ✔ self-awareness of emotions and attitudes toward the use of medications
- ✔ awareness and training in dealing with subgroup-specific effects of medications (e.g. medical syndromes, cultural or genetic effects, gender effects)
- ✔ awareness of potential adverse effects
- ✔ assessment and treatment are specifically accomplished through a biopsychosocial lens and that treatment is considered to be a collaborative effort with the patient and
- ✔ sensitivity to the issues of marketing and potential bias in the representation of drug effectiveness from pharmaceutical companies (McGrath et al., 2005).

MAKING THE CASE FOR AN INTEGRATED HEALTHCARE MODEL

Psychologists are broadly trained mental health professionals with advanced training in human development, social and cultural factors affecting behavior, psychotherapy, and psychological assessment. Additionally, while extensive psychopharmacological training is not a requirement of doctoral clinical psychology training programs, study of biological basis of behavior is a requirement of all programs. Typically, such training involves a foundational understanding of neuroanatomy and functioning.

Of course, psychologists' pursuit of prescription privileges requires extensive additional training. In addition, many clinical psychology graduate students elect to take several additional courses such as neuropsychology, neuroscience, and psychopharmacology. Doctoral clinical psychology students often embark on gaining extensive training and clinical experience at the pre- and post-doctoral levels in areas such as neuropsychology and health psychology.

While many psychologists are quite knowledgeable of psychopharmacology as well as physiological factors affecting psychopharmacology, without more formal educational experiences other than pre and post-doctoral education and experience, psychologists have been left in a practice dilemma. For many years, psychologists have been "consulting" with physicians concerning the use of psychotropic medication; however this raises the problem of practicing beyond one's expertise and license. Thus, in the past, prior to the development of post-doctoral psychopharmacology programs, some psychologists also became pharmacists, or nurse practitioners, in order to gain the ability to prescribe that way. Consequently, psychologists who wished to prescribe were required to develop expertise in other fields in addition to psychology. Several important events have occurred which contributed to the notion that psychologists, with additional medical and psychopharmacological training, should be able to prescribe without adding an additional profession to their education.

Psychology is the only mental health care profession where training uniquely qualifies psychologists to utilize the broad range of psychodiagnostics and psychological treatments, including psychopharmacology if psychologists choose to pursue post-doctoral curricula and training in clinical psychopharmacology. Prescriptive authority will highlight that psychologists have advanced training in diagnosis and treatment of mental disorders and that psychologists' training spans a wide range of psychological treatments, not only "psychotherapy and counseling". Psychologists' emphasis on the importance of the broad range of psychological treatments over the sole focus on pharmacotherapy will only enhance collaboration between psychologists and other psychotherapists seeking a psychopharmacology consultation. Also, the prescribing practices of psychologists in the military indicate that they are much

more conservative than psychiatrists in their prescriptive practices. One review of practice showed that psychologists prescribed 13% of the time, opting instead for other psychological treatments while psychiatrists prescribed over 80% of the time for the same patient populations (Reeves, Hildebrandt, Samelson, Woodman, Ketola, Silverman and Bunce, n.d.). McGrath, Wiggins, Sammons, Levant, Brown, and Stock (2004) indicate that medicine, and to a lesser extent, psychiatry, have failed to meet the needs of individuals with mental disorders because all but one modality of treatment has been rejected. Consequently, most patients are prescribed medication without consideration of whether it represents the optimal treatment. Surveys of physicians' practice patterns suggest that nearly 100% of patients seen for depression in primary care settings receive a prescription of medication, with very few of these patients seeking other forms of treatment, such as psychotherapy (National Depressive and Manic Depressive Association, 2000).

The American Medical Association (AMA) has revealed that almost half (46%) of the more than 40,000 U.S. psychiatrists are 55 years or older, compared to approximately 35% of all U.S. physicians. Thus, there will soon likely not be enough well trained psychiatrists to fill the exploding needs of those with mental health problems. Approximately 80% of all psychotropic medications are now being prescribed by non-psychiatric physicians with little to no training in the diagnosis and treatment of mental illness or the use of psychotropic medications. Review of the safety record of currently prescribing psychologists in the military, Louisiana and New Mexico leaves no doubt that psychologists can be trained to safely prescribe despite the same patient safety warnings from psychiatry against psychology that have been proclaimed for over 50 years every time psychologists have attempted to increase scope of practice (Reeves, et al., n.d.).

Currently, approximately thirty-one state psychological associations have established task forces or committees to study feasibility or to draft legislation towards prescription privileges for psychologists with appropriate psychopharmacology education/training. Wiggins reported on a mental health treatment crisis in Arizona due to a shortage of prescribing mental health specialists. He indicates that significant cost savings can be obtained using "full service" professionals to provide both psychotherapy and psychopharmacology. This "full service" type of care is efficient over the current "usual practice" involving one doctor prescribing the medication and another managing the patient's care with psychotherapy. Prompt access to mental health care could save up to 32% of the cost of initial hospitalizations according to Smith, Rost and Kashner (1995). A "best practice" model is proposed by having psychologists enhance the quality of mental health services and expand access to care by integrating cognitive behavioral therapy with psychopharmacology. This form of healthcare combines the two forms of treatment demonstrated to be most effective. Additionally, Wiggins reports that approximately 44% of psychiatrists in training have to be recruited from graduates of international medical schools. Psychiatric residency training in recent years has emphasized psychopharmacology rather than psychotherapy. At best, physicians currently in psychiatric training in Arizona will replace rather than add to the current supply.

Tennessee psychologists (2003) have also provided a detailed report of why appropriately trained psychologists should have prescriptive authority. They indicate that the unmet need for appropriate mental health services are tremendous and costly: There is a severe shortage of psychiatrists in Tennessee and nationally, a state-wide survey documented patients' lack of access to Tennessee psychiatrists; American physicians in training are not entering psychiatry in sufficient numbers to meet either current or future needs; primary care physicians are over-burdened and ill-equipped to deal with mental health problems, and it is unreasonable to expect them to do so effectively; as an inevitable consequence of this situation, *medications are over-prescribed*, leading to out of control pharmacy costs; care is often inadequate and fragmented, *and therefore much more costly*; combining medication and psychotherapy is the most effective, and most cost-effective, treatment for most mental disorders; however, organized medicine has *relentlessly* opposed all other professions' efforts to expand their scope of practice. Yet, the Tennessee Psychological Association-endorsed prescriptive authority training program is rigorous, comprehensive, and significantly exceeds nationally recommended guidelines. In conclusion, prescribing psychologists are SAFE. Tennessee psychologists (2003) proposed that prescribing authority for appropriately trained psychologists would offer Tennesseans: *Greater access* to mental health care; *greater opportunity for* quality mental health care; a means of addressing *rising psychotropic drug costs*; *the opportunity for integrated care* combines behavioral and

lifestyle interventions with judicious and appropriate prescription of medication, resulting in more cost-effective care; and a chance to receive *care from providers uniquely qualified* in the fields of psychology and psychopharmacology.

In a recent article, Reeves, et al. describe the benefits that prescriptive authority for psychologists can provide to residents of California. The authors contend that prescriptive authority will facilitate parity for psychologists with psychiatrists in terms of reimbursement and professional opportunities, thus increasing the likelihood that psychologists will be more attracted to settings that are in desperate need of additional highly qualified professionals. This authority will provide opportunities for psychologists to obtain important leadership positions in hospitals, research settings, and other mental health care settings that have been the exclusive domain of psychiatrists, thus bringing a broader, more holistic viewpoint (including cognitive, developmental, and social understanding of persons) to the delivery of services. Prescriptive authority would lessen the perceived competency gap that obstructs psychologists' pursuit to practice to the full scope of their training and enable them to have a more direct impact to improve mental health services. For example, currently, most hospitals do not allow psychologists to be members of the medical staff with voting privileges. Psychologists are often relegated to Allied Health Professional membership status without voting privileges or the ability to meaningfully participate on committees, even though California state law mandates that psychologists are entitled to full medical staff privileges to practice within their full scope of training (*CAPP v Rank*, 1990). Permitting psychologists to have hospital and medical staff privileges will ensure the development of hospital policies and standards of care that are holistic and consider many aspects of the patient, not just their medical status. Patients in facilities operating primarily from a medical model often do not receive sufficient psychological services to manage their disorders, but instead tend to be mostly treated with medications to suppress symptoms (Bailey, 2006).

THE DEVELOPMENT OF A TRAINING MODEL AND ENABLING LEGISLATION

One of the contentions of psychologists opposed to prescriptive authority is that the field is not ready for this change and that it does not have popular support among psychologists, that this issue is one being promoted for self-serving interests by a few radical psychologists. The evidence is to the contrary. Sammons, Gorny, Zinner and Allen (2000) surveyed Maryland Psychologists. Most of the 435 psychologists surveyed were from full-time private practice, hospitals and public service. Sixty-seven percent agreed with authority to prescribe. A review of twenty previous surveys found overall 65%+ favor prescribing privileges (Sammons et al., 2000). Ramirez (2002) completed a dissertation surveying 500 licensed psychologists from a random national sample. The rate of survey return was 44%, with responding psychologists having an average length of practice of 8 years. Results revealed that 84% agreed or strongly agreed that psychologists who are trained should be able to prescribe; 10% disagreed or strongly disagreed. Sixty percent saw gaining knowledge in psychopharmacology as an extension of current knowledge. Overall, most psychologists see the value of this expansion of practice; no one will be required to practice psychopharmacology.

In Summary, for approximately 25 years, psychologists and outside interested parties have been calling for psychologists to move toward prescriptive privileges. APA governance have been involved for approximately 17 years and the votes have been overwhelming and consistently in support of psychologists gaining prescriptive authority. Since 1994, psychologists have been actively prescribing in the military with no significant negative outcomes. Additionally, no significant negative outcomes have been noted, in public forums, to date for psychologists prescribing in New Mexico, Louisiana, or Guam.

Regarding the Department of Defense's program for training psychologists in psychopharmacology (PDP), perhaps most importantly, the American College of Neuropsychopharmacology (ACNP) believes that the program has not turned out "mini-psychiatrists" or psychiatrist-extenders, but rather, "extended psychologists with a value added that component prescriptive authority provides. They continued to function very much in the traditions of clinical psychology (psychometric tests, psychological therapies) but a body of knowledge and experience was added that extended their range of competence" (ACNP, 1998, p. 4). The ACNP panel concluded their executive summary of the PDP project with what can only be described as a unquestionable endorsement:

> The PDP graduates have performed and are performing safely and effectively as prescribing

> psychologists. Without commenting on the social, economic, and political issues of whether a program such as the PDP should be continued or expanded, it seems clear to the evaluation panel that a 2-year program—one year didactic, on year of clinical practicum that includes at least a 6 month inpatient rotation—can transform licensed clinical psychologists into prescribing psychologists who can function effectively and safely in the military setting to expand the delivery of mental health treatment to a variety of patients and clients in a cost effective way. We have been impressed with the work of the graduates, their acceptance by psychiatrists (even while they may have disagreed with the concept of prescribing psychologists), and their contribution to the military readiness of the groups they have been assigned to serve. We have been impressed with the commitment and involvement of these prescribing psychologists to their role, their patients, and the military establishment. We are not clear about what functions the individuals can play in the future, but we are convinced that their present roles meet a unique, very professional need of the Department of Defense. As such, we are in agreement that the Psychopharmacology Demonstration Project is a job well done. (ACNP, 1998, p. 6).

Currently, post-doctoral psychopharmacology training programs either lead to a master's degree or a certificate upon completion. The PDP model of training was based on the medical school model and included roughly the first 2-3 years of medical school. PDP graduates noted that the knowledge base necessary for safe and effective prescribing that was identified through the PDP is now being taught in a context less dominated by the medical model and built more on a psychological model of health (Newman, Phelps, Sammons, Dunivin, and Cullen, 2000).

Currently, two levels of practice exist for psychologists who complete a postdoctoral program of study in psychopharmacology. Level 2 enables a psychologist to be a consultant with physicians and other psychopharmacologic prescribers. These psychologists have completed a minimum of 2 years of didactic training, with many programs also requiring the psychologist to successfully complete a national competency examination, the Psychopharmacology Exam for Psychologists (PEP). Level 3 classification also requires the completion of didactic training and typically the PEP exam (varying PEP requirements exist by jurisdiction), but also requires a practicum experience with 100 patients seen while supervised by a physician, or other appropriate prescribing clinician (as indicated by jurisdiction), with a minimum of 2 hours per week clinical psychopharmacological experience. At level 3 classification, the psychologist becomes a prescribing psychologist and a full spectrum care provider. These practice classifications were established based on lessons and feedback from PDP graduates.

LOOKING FORWARD: THE CONTINUED EVOLUTION OF THE PRESCRIPTIVE PRIVILEGES AGENDA

As states individually acquire prescription privileges for psychologists, they establish their own set of training and experience criteria. The New Mexico bill required additional training, which was agreed upon by the New Mexico Medical Society and the Board of Pharmacy. New Mexico Law requires 450 clinical "in seat" hours, in addition to passing the PEP examination. Following the 450 clinical "in seat" hours and successful PEP completion, two years of supervised practicum experience with a physician or nurse practitioner is required. If performance is satisfactory, the psychologist can then prescribe independently (New Mexico Psychological Association). Most post-doctoral training programs across the country have now adopted or exceeded this requirement in anticipation of similar laws being passed in the future across the country. Louisiana statute requires ongoing collaboration/approval with a physician following the afore-discussed didactic and clinical experience. Guam also requires a *Collaborative Practice Agreement* mandating supervised practice with a physician; it is important for psychologists to realize that this is more akin to "consultation" and is *not* the same as the type of supervision that occurs in psychology training programs where the supervisor must sign off on the candidate's work and is fully responsible for all actions of the supervisee (Allied Health Practices Act, 1998).

As noted above, several post-doctoral training programs exist throughout the United States. They continue to adapt to provide high quality training in psychopharmacology and to prepare psychologists to prescribe.

An example of such programs is the Clinical Psychopharmacology Master's Degree offered via distance learning through Fairleigh Dickinson University. The program provides videotaped lectures, online

resources, chats and discussions, text readings, case presentations and five onsite regional meetings over two years, all of which facilitate learning by students around the country. Successful completion of the PEP examination is also required for receipt of the Master's Degree. The program involves ten courses including biopsychosocial review of body systems, neuroscience, neuropharmacology, clinical psychopharmacology, professional issues and practice management, and case study based treatment issues, with approximately 15 hours of study required per week. Level 2 classification is achieved after completing the Master's Degree, with an elective for a clinical practicum with a supervising preceptor (as described above) for level 3 practice.

In addition, in light of the changes that legal statutes have created in the curriculum of training programs, and in light of the experience of prescribing psychologists in the military and especially in Louisiana and New Mexico, changes are currently being debated regarding the national training curricula as defined by APA. A national Task Force on Psychopharmacology Curricula has been convened. Ultimately, the Task Force will make recommendations for changes to Level 3 curricula that will affect all training programs across the country (McGrath, personal communication, September 14, 2006).

Of course, pro and con arguments will continue to exist regarding psychologists gaining prescription privileges until such practice is common across the country. Norcross (2005) reports on such pros and cons in the following way:

- ✔ Con or anti-prescribing position: Physicians contend that arguments surrounding the general practitioner or primary physician's role in the treatment of mental health are misleading:
  - ✔ Non-psychiatric physicians receive little mental health training during medical school; however, they receive 4-6 years of medical and pharmacological training during medical school
  - ✔ There is no evidence that the psychotropic prescribing patterns of general medical practitioners (GP) are problematic
  - ✔ Patient safety concerns
  - ✔ A more logical solution is to increase mental health training for GP's and encourage psychiatric and primary care collaboration
- ✔ Pro prescriptive authority for psychologist arguments/ replies:
  - ✔ There are non-physician precedents for expansion of practice to include prescribing (e.g. Nurse Practitioners, Physician Assistants, optometrists, pharmacists, podiatrists)
  - ✔ Psychologist affluence (industrialization of health care)
  - ✔ Psychological practitioners indicate a desire to prescribe (65 to 70% of psychologists "strongly favor prescriptive authority")
  - ✔ American Psychological Association has provided clear support for expansion of practice
- ✔ Strong Arguments for psychologist prescribing:
  - ✔ Public accessibility – there is a desperate need to increase the public's access to high quality mental health care, especially in rural and impoverished areas
  - ✔ At least 70-75% of psychotropic medication is prescribed by general practitioners (see Preston & Ebert, 1999), most having little training in psychopharmacology or in the diagnosis and treatment of mental disorders. There are data indicating that general practitioners often do not medicate appropriately, at least for depression, one of the most commonly seen disorders (Preston & Ebert, 1999); in addition, medically trained practitioners do not fully understand nor utilize psychotherapy as a treatment option.
  - ✔ Declining numbers of psychiatrists — psychiatric residency programs have shown a consistent decline in the number of applications to these programs by physicians from the United States.
- ✔ Psychologists will utilize pharmacotherapy within the context of a biopsychosocial model (systems-oriented, holistic, integrative, collaborative) in contrast to a medical model that is no longer considered very effective. Psychologists have a broader set of skills.
- ✔ By permitting psychologists to prescribe, we can achieve sophisticated, efficient and cost-efficient integration of psychotherapy and pharmacotherapy and can enhance collaborative treatment where the patient has an active say in how treatment proceeds.
- ✔ Better continuity of care is achieved because psychologists can manage all aspects of the patient's mental health needs.
- ✔ Psychologists will provide more evidence-based care because psychological training and ethics emphasize awareness and currency with research outcomes; treatment decisions are based on data, not on marketing. Psychologists are trained both as scientists and practitioners and have special expertise in

diagnosis based on psychometrics rather than clinical impressions alone.

Psychologists with expertise in psychopharmacology, in addition to psychosocial and psychotherapeutic assessment and interventions, will create new possibilities for dynamic and comprehensive-research based treatment. Clinical mental health research suggests that treatments cannot be uniformly driven by diagnoses. For example, with regards to patients with Obsessive Compulsive Disorder (OCD) with mostly compulsive symptoms, the best outcome is achieved with behavioral psychotherapeutic treatment. However, OCD patients with mostly obsessive symptoms experience the best outcomes with psychotropic medication combined with behavioral psychotherapeutic treatments (Hohagen et al., 1998). With regards to optimal mental health treatments for specific individuals there is much we do not know. Mental health care providers need to proceed with caution, with much more research. It is quite likely that psychologists, with their extensive research training and experience, will be in a critical position to carefully scrutinize existing research of psychotherapeutic and psychopharmacological treatments and enthusiastically drive ongoing research to more clearly delineate increasingly optimal mental health interventions; these interventions might include an array of psychotherapeutic approaches and/or psychopharmacological interventions as research and comprehensive clinical experience dictates. As psychologists increase their knowledge, awareness and appreciation of psychopharmacological treatment approaches, in addition to assessment and psychotherapy, psychologists will be in a key position to systematically dissect active treatment ingredients.

As we look toward the future of psychology, the history of psychology and its growth needs to be considered. For much of our history, psychology has been a "niche" profession – seen as relevant only to mental health issues, "carved out". Despite this, psychology has continued to grow and develop, e.g. neuropsychology, forensic psychology, health psychology. As a learned profession, psychology has an opportunity to contribute to society in more complete ways.

IMPLICATIONS AND CONCLUSIONS

- ✔ The concept of psychologists prescribing is not a new one; it has been extensively evaluated at the national level. It is widely accepted in the profession.
- ✔ The models of training that have been developed are more comprehensive than those of many other disciplines that are currently prescribing.
- ✔ There is documented evidence (from the PDP) that psychologists can prescribe safely.
- ✔ Legislative authorization will expand as the battle continues across the country and as data accumulates regarding the safety and effectiveness of prescribing psychologists in New Mexico and Louisiana.
- ✔ Being trained in psychopharmacology and prescribing will enhance the profession and treatment:
- ✔ Evidence indicates that prescribing psychologists will NOT be using a medical, but an *integrated* or psychosocial model of prescribing; emerging practice standards declare that this is the preferred model for both assessment and treatment in prescriptive or collaborative practice
- ✔ Combined treatment: this is another example of a potential area of growth for the profession in terms of both research and practice.

It is overwhelmingly clear that it is time to give up ideological, unimodal approaches in favor of customized, patient-centered, multi-modal assessment and treatment models that are more effective and permit psychologists to fully engage with the patient in a holistic way.

A PERSONAL TESTIMONIAL

As a clinical psychologist in a hospital setting, over 50% of Dr. Wautier's patients take psychopharmacologic medications. The Fairlegh Dickinson University Post-Doctoral Psychopharmacology Master's Program has offered him a means by which to systematically gain new biological knowledge, key to his functioning as a hospital-based clinical psychologist. With only his first year completed, the program has provided him with greater awareness and appreciation for the complexities of body systems, particularly nervous system functioning, and significance for mental health care.

Dr. Wautier states: "I have substantially increased my ability to more effectively communicate with physicians. I have begun to develop more thoughtful and comprehensive consideration of psychological, social, emotional, developmental and well as biological/medical factors impacting patient care. Also, I have begun to more thoughtfully and effectively consider the impact of psychotropic medications on my patients' mental health care, enabling me to more effectively monitor my patient's mental health treatment in collaboration with prescribing physicians".

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A BRIEF HISTORY OF THE FAIRLEIGH DICKINSON UNIVERSITY POSTDOCTORAL M.S. PROGRAM IN CLINICAL PSYCHOPHARMACOLOGY

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Fairleigh Dickinson University in Teaneck, New Jersey, established a training program for psychologists in psychopharmacology in 2000. This manuscript provides a description of the program, as an example of the type of training being provided to American psychologists in preparation for prescriptive authority. A history of the program is also presented in the context of the movement to provide American psychologists with postdoctoral training in clinical psychopharmacology.
Key words: *FDU Psychopharmacology Program, Postdoctoral training, American Psychologists*

La Universidad Fairleigh Dickinson en Teaneck, Nuevo Jersey, estableció un programa de formación para psicólogos en psicofarmacología en el 2000. Este manuscrito ofrece una descripción del programa, como ejemplo del tipo de formación que se está proporcionando a los psicólogos americanos para prepararse para la capacidad legal de prescribir. También se presenta una historia del programa en el contexto del movimiento para proporcionar a los psicólogos americanos con una formación posdoctoral en psicofarmacología clínica.
Palabras clave: *Programa FDU de Psicofarmacología, Formación postdoctoral, Psicólogos americanos.*

The history of American psychologists' efforts to become more involved in medication management has been brief but vibrant. It begins in 1984, when Senator Daniel Inouye spoke to the Hawai i Psychological Association about the drastic shortage of suitably trained providers of psychotropic medications, and recommended that psychologists begin pursuing prescriptive authority. His concern subsequently led him to introduce a bill into Congress to establish a demonstration project in the U.S. military in 1989. The bill passed, and led to the creation of the Psychopharmacology Demonstration Project (PDP), which ultimately resulted in 10 military psychologists receiving training in preparation for prescribing.

THE PSYCHOPHARMACOLOGY DEMONSTRATION PROJECT

The first iteration of this program began with four psychologists in 1991 (Sammons & Brown, 1997). The initial program involved two years of full-time coursework, essentially equivalent to the first two years of medical school, followed by a year of clinical training. This rigorous curriculum not only required a year longer to complete than was originally intended, it involved training in a variety of medical domains that were irrelevant to the participants' involvement in pharmacotherapy. As a result, the second and third iterations were substantially reduced. Where the first iteration involved 1365 hours in the classroom, the subsequent cohorts completed between 640.5 and 660 hours, eliminating a full year from the program. What was particularly important was the creation of courses specifically designed for participants in the PDP, which was an explicit recognition that traditional medical school training is not the appropriate training path for prescribing psychologists.

The initial legislation mandated objective evaluation of the PDP program. Because of its controversial nature, four different evaluations were conducted. This is a remarkable level of analysis for a program that only generated 10 graduates! These evaluations were consistently positive, and demonstrated that psychologists can be taught to prescribe in a manner that is safe, cost-effective, and distinctive from other professions (Newman, Phelps, Sammons, Dunivin, & Cullen, 2000).

TRAINING IN THE CIVILIAN SECTOR

The program was terminated, in part due to its controversial nature, in 1997. Even so, it energized efforts

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to train psychologists in the civilian sector. The first milestone in this movement was the founding of the Prescribing Psychologists' Register, or PPR, which began training psychologists in psychopharmacology in 1992. It is uncertain how many psychologists ultimately completed their training through PPR, as this information has never been made public. The task of estimating the number is also complicated by the fact that PPR established several different levels of training. Furthermore, the program was modified in response to historical events, one being the adoption of formal training guidelines by the American Psychological Association, and another being the legislation of training requirements for licensure as a prescribing psychologist in New Mexico. I have attempted on several occasions to estimate the number of psychologists who have completed at least 300 hours of postdoctoral training in psychopharmacology through PPR, and it is my best guess that somewhere between 250 and 400 psychologists meet this criterion. Though the number of psychologists who receive their training from PPR has clearly declined since then, PPR still holds the honor of having trained more psychologists in preparation for prescriptive authority than any other program.

TABLE 1
APA MODEL CURRICULUM FOR POSTDOCTORAL TRAINING IN PSYCHOPHARMACOLOGY

Topic	Hours
I. Neurosciences	
A. Neuroanatomy	25
B. Neurophysiology	25
C. Neurochemistry	25
II. Clinical and Research Pharmacology and Psychopharmacology	
A. Pharmacology	30
B. Clinical Pharmacology	30
C. Psychopharmacology	45
D. Developmental Psychopharmacology	10
E. Chemical Dependency and Chronic Pain Management	15
III. Pathophysiology	60
IV. Introduction to Physical Assessment and Laboratory Exams	45
V. Pharmacotherapeutics	
A. Professional, ethical, and legal issues	15
B. Psychotherapy/pharmacotherapy interactions	10
C. Computer-based aids to practice	5
D. Pharmacoepidemiology	10

Adapted from American Psychological Association Council of Representatives. (1996, August 12). *American Psychological Association recommended postdoctoral training in psychopharmacology for prescriptive privileges.* Washington, DC: Author.

The next milestone was the development of formal guidelines for postdoctoral training in psychopharmacology briefly mentioned in the previous paragraph. The American Psychological Association (APA) established a task force to develop such guidelines in 1995. The resulting document (APA Council of Representatives, 1996) was adopted as official APA policy in 1996, almost exactly 10 years before these words are being written.

The guidelines suggested a minimum of 300 hours of coursework. However, when the actual content areas for the coursework were listed, they totaled 350 hours, so the guidelines allowed some flexibility in the curriculum. Table 1 provides the recommended content areas.

The document containing the guidelines has proven extremely controversial in the ensuing years, for several reasons. First, they hold open the possibility of incorporating portions of the curriculum into an "expanded predoctoral curriculum" (APA Council of Representatives, 1996, p. 1). This was considered a problematic statement by those who were concerned about the possible impact of such a modification of the predoctoral curriculum on the training and identity of psychologists (e.g., Council of University Directors of Clinical Psychology, 2001; McGrath, Wiggins, Sammons, Levant, Brown, & Stock, 2004).

Second, the guidelines define a series of prerequisites to be completed before the psychologist is eligible to participate in postdoctoral psychopharmacology training. Most programs have instead elected to incorporate those topics into the programs themselves, to reduce the number of hurdles to be completed prior to matriculation. Third, the guidelines indicate "didactic courses will be administered for academic credit with careful attention to trainee evaluation. … The provider of this training program must be a regionally-accredited institution of higher learning or another appropriately accredited provider of instruction and training" (APA Council of Representatives, 1996, p. 3). These were problematic requirements at a time when the only training program available in the civilian sector (PPR) was a freestanding organization without links to a university. Finally, guidelines that were provided for a clinical practicum were ultimately found to be internally inconsistent and impractical (McGrath, 2004).

Despite these problems, the development of a generally accepted framework for training spurred the

development of new programs in the civilian sector.[1] The California School of Professional Psychology (now part of Alliant International University) began the first postdoctoral master's degree program in clinical psychopharmacology in 1998, creating a distinction between programs that offer a degree versus a certificate of completion. Within the next year, three new certificate programs and another master's program followed. The Georgia Psychological Association created a certificate program in partnership with the University of Georgia and Georgia State University. The other two certificate programs were The Psychopharmacology Institute in Nebraska, which was the first purely distance-based program, and a joint program between the Southwestern Institute for the Advancement of Psychotherapy and New Mexico State University. The new master's program was established at Nova Southeastern University in Florida. All these programs continue to exist except the Georgia program.

Though not directly related to issues of training, yet another important event was the founding of Division 55 of the APA in 1998. The divisions of the APA represent special interest groups within the larger association. Division 55 is the American Society for the Advancement of Pharmacotherapy, or ASAP, and is devoted to issues surrounding psychologists' increasing involvement in clinical psychopharmacology. The division has proven a particularly important locus for the discussion of training issues, and for strategizing about legislative efforts towards prescriptive authority.

One final milestone in the advancement of training in the civilian sector was the creation of a national examination for psychologists who have received training in clinical psychopharmacology. The American Psychological Association Practice Organization recognized that States that award psychologists prescriptive authority would need some mechanism for evaluating competence. In addition, given the diversity in the training programs that were emerging, some objective standard was considered useful for demonstrating mastery of the relevant material. The College of Professional Psychology, which is a branch of the Practice Organization that develops advanced credentials, was charged with the development of what came to be known as the Psychopharmacology Examination for Psychologists, or PEP. Developed in conjunction with a nationally recognized firm that specializes in the development of licensing examinations, the PEP consists of 150 items that tap a large variety of content domains. The full set of domains may be found in several places on-line, including http://www.rxpsychology.com/pep_knowledge_domains.pdf.

It was in the midst of this rapidly developing milieu that the Fairleigh Dickinson University Master of Science Program in Clinical Psychopharmacology was born. It was a process not without growing pains, however.

THE FOUNDING OF THE FAIRLEIGH DICKINSON UNIVERSITY PROGRAM

By 2000, a company called Global HealthEd was considering the possibility of a distance-based certificate program. Global HealthEd was one of several companies that had been created in affiliation with the University of Florida to create distance-based programs in health and education. Initially, Global HealthEd intended to offer the program in conjunction with the University of Florida Department of Psychology. They began by hiring Anita Brown, one of the graduates of the PDP program, as the Curriculum Director for the program, responsible for overall design of the curriculum.[2]

A training director who would be responsible for the ongoing academic direction of the program was identified from among the faculty of the department, materials were developed for the first semester, and extensive advertising to psychologists across the country

[1] Several other programs besides those described here were either announced, or actually offered for a brief period. The discussion here focuses on those programs that are still in existence, or that were particularly influential in terms of popularizing the idea of training psychologists to prescribe. Several other programs have been established since the Fairleigh Dickinson program, most notably a master's program at the Massachusetts School of Professional Psychology and a certificate program at Texas A&M University. At present, there are nine programs active, including five certificate programs and four master's programs.

[2] To date, four of the 10 PDP graduates have played an important role in the program: Anita Brown, Elaine Mantell, Morgan Sammons, and John Sexton. The last has served as a video presenter. The other three have served as video presenters and course instructors. In addition, Anita Brown continues to serve as a consultant to the program.

generated an initial class of 36 psychologists. The program was on-schedule to offer its first courses in September 2000. During the spring of 2000, the Department of Psychology experienced intense pressure from medical staff in the university to terminate its involvement. Threats included the termination of all referrals from the medical school to the departmental clinic. In short order, the Department of Psychology decided to withdraw from the program, barely months before the proposed start date.

Global HealthEd was understandably eager to find an alternative partner. At the time, the company happened to be in negotiations with Fairleigh Dickinson University in Teaneck, NJ, about several other programs, and mentioned the possibility of adding the psychopharmacology certificate program to the package. When I agreed to serve as the training director of the program, the university decided to accept the offer.

The program is distinctive in several ways. The program combines elements of traditional education with a distance format. Each course has an instructor who is responsible for its design and student progress. Each of the eight courses is divided into 5-8 modules. Each module incorporates 1-3 lectures, readings, and questions that reflect the main topics of the lecture.

Lectures for each course are videotaped using a special system that switches the focus back and forth between the lecturer and PowerPoint slides. Instead of having a single instructor present each lecture, lectures are assigned to individuals with expertise in the topic covered in that module. Students are provided the PowerPoint slides used in each lecture. Unlike some programs that simply film a class or the PowerPoint presentation, the result is much more consistent with the traditional combination of materials and personal presentation.

Courses are matched to the university's academic calendar, with a strict schedule for proceeding through courses. Each course was ultimately set to a 7.5-week schedule, so each two courses complied with the 15-week semester schedule established in New Jersey. This approach facilitates progress through the program more effectively than the traditional distance education approach of allowing the student to set the pace.

Student interaction is achieved primarily through a weekly on-line chat. These chats last an hour or more, and usually focus on clinical integration of course material. For example, a case may be presented that is associated with the current course topic. The students then spend an hour discussing the details of the case, diagnosis, and treatment issues.

Second, the program is not purely distance-based. It is recognized that some material is best presented in a face-to-face format, with training in physical examination being the best example. At the end of each of the five semesters, students meet for two days in what is called the Regional Interaction Session.

A third distinctive feature is the involvement of at least two faculty members in each course. The instructor is responsible for designing the course, building examinations, oversight of the course as it progresses, and addressing questions about the material at an academic level. Because the program is not geographically restricted, instructors can be selected primarily on the basis of expertise and teaching ability. All are either graduates of the PDP, or have full-time university appointments.

Each student is also assigned to a facilitator, who is primarily responsible for the chats and conducting the Regional Interaction Session. Facilitators are generally assigned a maximum of 15 students, so courses with more students are assigned multiple facilitators. Though the relationship between instructor and facilitator is similar to the traditional distinction between instructor and teaching assistant, the facilitators are well-qualified professionals, usually prescribing nurse practitioners with a specialty in mental health.

Yet a fourth distinction has to do with the length of the program. After receiving her training through the PDP, Anita Brown did not believe 300-350 hours offered sufficient training in psychopharmacology. As a result, the program was expanded to 480 hours. In particular 40% of the program is devoted to the practice of psychopharmacology. The curriculum may be found in Table 2.

The decision to expand the program was prescient. When prescriptive authority for psychologists became law in New Mexico, the legislature mandated at least 450 hours of classroom work. As a result, most programs in the country have expanded their curriculum to 450 hours. The Fairleigh Dickinson program is the only one that exceeds the New Mexico standard.

PROGRESS OF THE PROGRAM

The first class of 36 students began instruction in Fall

2000. The start was rocky, to say the least. It was Global HealthEd's first endeavor in healthcare education without the University of Florida, so they were working with an untested computer platform. The initial system proved so unstable that it was completely replaced twice within the first year. I had been training director for all of one month when courses began, and with almost no prior experience in distance education, I suddenly found myself dealing with both marketing such a program and trying to iron out its technical problems. Because of the size of the class, three facilitators were needed, and one of the facilitators was not hired until the semester was about to start.

By the end of the first year, Global HealthEd recognized the number of participants in the program was never going to meet their initial projections, and were hoping to reduce their involvement. At the same time, students had expressed their strong interest in converting the program to a master's degree despite the increased cost to them of doing so. Out of these two events came an agreement between Fairleigh Dickinson and its partner that the university would assume all responsibility for the program, and convert it to a master's degree. The conversion took well over a year to complete, but by the time the first group of students completed the coursework in Spring 2002, they were eligible to receive the degree Master of Science rather than a certificate for an additional charge. All agreed to do so except one. Since that time, all students have been accepted into the master's degree program.

One requirement for graduate programs in the State of New Jersey is some sort of capstone experience, usually met through a thesis or comprehensive examination. After some consideration, we thought requiring the PEP served several purposes. First, it met the state requirement. Second, since the program is distance-based, critics could question whether students are in fact completing their own work. The demands of the program make it unlikely that a student could recruit others to do the work for them, but given the controversial nature of the training, it was thought better to include safeguards. Third, the PEP was unlikely to succeed unless a reasonable number of individuals took the examination.

Requiring the PEP has proven to have been a good decision. Preliminary data suggest that about 30% of those taking the PEP fail on their first attempt. This has been a source of some controversy. Since all individuals who are completing the PEP have already achieved

TABLE 2
CURRICULUM FOR THE FAIRLEIGH DICKINSON UNIVERSITY M.S. PROGRAM

Course	Hours
Biological Foundations of Psychopharmacological Practice I	48
Biological Foundations of Psychopharmacological Practice II These courses present an integrated approach to the study of primary body systems (respiratory, cardiovascular, renal, hematologic/immunologic, gastrointestinal, endocrine, reproductive, musculoskeletal, and dermatologic) that correlates fundamental knowledge of the anatomy, physiology, and pathophysiology of a specific body system with the clinical applications (health assessment, physical examination, laboratory assessment) pertaining to that system. Exploration of clinical medicine concepts will utilize a problem-solving approach. The goals of these two courses are to enhance the student's recognition of signs and symptoms of medical conditions requiring collaboration with and referral to other health professionals and to provide knowledge about the psychological, biological and medical correlates of disease. Medical sequelae of psychotropic agents and familiarity with standard medical treatment of common disease states are addressed.	48
Neuroscience This course focuses on the anatomy and physiology of the nervous system, beginning at the cellular level. Knowledge of principles of neurochemistry, neuroendocrinology, and neuropathology will serve as a foundation for the understanding of neurotransmitter systems and their role in the etiology and treatment of mental disorders.	48
Neuropharmacology This course introduces the knowledge base pertaining to pharmacology and psychopharmacology. It includes continued study of neurotransmitter systems and other factors in the psychopharmacological treatment of mental disorders, as well as an introduction to classes of psychotropic medications.	48
Clinical Pharmacology This course presents major classes of drugs (excluding psychotropics) and their uses in clinical settings. It includes an examination of the social, cultural, and behavioral aspects of prescribing medications.	48
Professional Issues and Practice Management This course reviews issues in prescribing from the perspective of a professional healthcare provider. Legal and ethical issues, as well as standards of care ranging from informed consent to documentation, are addressed. Interprofessional relationships and aspects of collaborative practice, as well as practice enhancement strategies such as computer-based aids, will provide learners with a solid foundation for the continued integration of psychopharmacology into their practices.	48
Treatment Issues in Psychopharmacology: Affective Disorders	48
Treatment Issues in Psychopharmacology: Psychotic Disorders	48
Treatment Issues in Psychopharmacology: Anxiety Disorders	48
Treatment Issues in Psychopharmacology: Other Disorders This treatment-focused series provides students with access to virtual practicum experiences through didactic information and case studies addressing specific categories of mental disorders. Each case addresses the following: diagnosis/differential diagnosis; etiology/biological basis of disorder; psychopharmacological treatment options, including mechanism of action, side effects, adverse reactions, polypharmacy, drug interaction, and patient education. The integration of treatment strategies as well as the empirical basis for treatments is presented. Disorders covered will include the mood disorders, psychotic disorders, anxiety disorders, cognitive disorders, substance abuse and chemical dependency, chronic pain, Post-Traumatic Stress Disorder, and Attention Deficit Hyperactivity Disorder, as well as others.	48

licensure as a psychologist, and have completed a training program of at least 300-450 hours, some have considered this an excessively high failure rate. The failure rate is likely to become a greater source of contention later, when more people are taking the examination as part of their application to become a prescribing psychologist. For the moment, most people remain unaware of this issue. To date, the Fairleigh Dickinson University (FDU) passing rate has hovered around 80%, suggesting our training is at least as good if not better than that of programs that use traditional teaching methods. Even so, given the difficulty of the PEP, students have an option of an oral examination with three faculty members if they fail the PEP twice; this option for completing the Master Degree has so far only been necessary for one student. The oral examination is also available for students residing in foreign countries, for whom requiring the PEP would be prohibitive.

A second important revision was the addition of a practicum. Despite confusion about the appropriate standards for such an experience, students were eager to begin to apply their learning upon completion of the program. As a result, a practicum experience was created as an optional component. Finding physicians in their community willing to serve as supervisors has proven difficult to many students. As a result, only about 15 participants in the program have opted to pursue a practicum after completion of coursework. These have occurred in a variety of settings, including nursing homes, private practices, and psychiatric facilities. About half have involved a psychiatrist supervisor, with the other half divided across a variety of medical specialties. Feedback from the physician supervisors has been consistently exceptional; in every case, by the end of the year-long practicum the supervisor has rated the psychologist ready for independent practice.

At present, 46 students are taking courses in the FDU program. Another 85 students have already completed courses, and 26 of those have taken the PEP. Over the six years of the program, 59 individuals have opted to withdraw at some point in their training. This represents an average of 31 new students each of the six years the program has existed. Where other programs have opened their classes to other professionals, or even to graduate students, as a means of maintaining enrollment, every student in the FDU program has been a doctoral-level psychologist. Almost all have been licensed, though several individuals have been allowed to start the program while they complete the licensure process. Participants have been spread across the entire United States and several foreign countries as well, including Israel, Spain, and Korea.

A particularly important sign of the program's success is the growing number of state psychological associations that recommend the program to their members. It is recommended by the Maryland Psychological Association, and is now the official training program of the Tennessee, Georgia, and Alabama Psychological Associations. These relationships have been important, as they funnel students into the program, while assuring the state association that their members are receiving a quality education.

I consider it an important component of my position not only to deal with the parochial needs of my program, but to play a role in the advancement of psychologists' involvement in pharmacotherapy on both the educational and political levels. In 2000, I was appointed chair of the APA Division 55 Education and Training Committee. During the next several years, we undertook a variety of projects, including the creation of a spreadsheet that provides a direct comparison of the existing training programs. Though a little dated, this is still available at http://www.division55.org/Pages/ProgramComparisons.xls. Those activities ultimately led to my nomination as president of the division, in which position I am currently serving. I am also member of a task force soon to be convened by APA with the purpose of updating their guidelines concerning training curricula in psychopharmacology.

The Fairleigh Dickinson Master of Science Program in Clinical Psychopharmacology has gone from its troubled start to become one of the most respected programs of its type in the country. It has been exciting for us and for our students to participate so intimately in the next phase in the evolution of professional psychology. I have been consistently impressed by the thoughtful manner in which our students pursue their training, and the issue of how to become prescribing professionals without falling prey to the forces that led to the completely biological focus in modern psychiatry. That quality has allayed my initial concerns about whether this is the right choice for psychology. I am hopeful that psychologists in the United States are on the verge of creating a new model of prescribing, using medications as an auxiliary tool to

psychosocial interventions rather than as a primary or sole modality. It has been an honor to be a part of that process.

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PEDIATRICIAN/PSYCHOLOGIST COLLABORATION IN THE DIAGNOSIS AND TREATMENT OF CHILDREN WITH ADHD

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In the United States, the shortage of psychiatrists is increasing, and patients who need psychotropic medications often face long wait times and limited services. To fill the widening gap between supply and demand, prescribers trained outside of traditional medical settings are stepping in. Although psychologists traditionally had little medical background, a new generation of psychologists now receives extensive training in the use of psychotropic medications, and two states and one US territory have already enacted laws that grant properly trained psychologists prescriptive privileges. As psychologists increasingly pursue medical training, they become a valuable resource for pediatricians who are often called upon to treat childhood psychological disorders in addition to medical problems. Psychologists can be especially helpful to pediatricians grappling with the need to properly diagnose and treat children with attention-deficit hyperactive disorder, the most commonly diagnosed psychological disorder in childhood. This paper outlines the benefits to pediatricians, psychologists and the patient population when a collaborative relationship between pediatrician and pediatric psychologist is utilized to diagnose and treat children with this disorder.

Key words: *Pediatrician-Psycholigist collaboration, ADHD, prescriptive authority*

En los Estados Unidos, está aumentando la carencia de psiquiatras, y pacientes con necesidad de medicación psicotrópica a menudo se enfrentan a largas esperas y servicios limitados. Para disminuir la brecha creciente entre la oferta y la demanda, están incorporándose personas con capacidad para prescribir, formadas fuera de los escenarios médicos tradicionales. A pesar de que tradicionalmente los psicólogos han tenido poca formación médica, una nueva generación de psicólogos recibe ahora una exhaustiva formación en el uso de medicación psicotrópica, y dos Estados y un territorio de Estados Unidos ya han promulgado leyes que otorgan privilegios prescriptivos a psicólogos preparados. A medida que los psicólogos buscan formación médica, se convierten en un valioso recurso para los pediatras que a menudo son llamados para tratar trastornos psicológicos infantiles, además de problemas médicos. Los psicólogos pueden ser especialmente útiles para los pediatras que se enfrentan con la necesidad de diagnosticar y tratar adecuadamente a niños con el trastorno por déficit de atención e hiperactividad, el trastorno psicológico más comúnmente diagnosticado en la infancia. Este trabajo resume los beneficios obtenidos para los pediatras, psicólogos y pacientes cuando se utiliza una relación de colaboración entre pediatras y psicólogos infantiles para el diagnóstico y tratamiento de niños con este trastorno.

Palabras clave: *Colaboración Pediatra-Psicólogo, TDAH, capacidad para prescribir.*

In the United States, the use of medications to treat psychological disorders is prevalent. While some argue that this is the result of the American society's efforts to find a "quick fix," most health professionals recognize that many emotional disorders involve significant biological factors. Thus, treatment of these disorders often necessitates the use of medications.

AVAILABILITY OF MEDICAL SERVICES

In the US, the shortage of psychiatrists is becoming increasingly apparent (Goldman, 2001). Consequently, patients in need of psychiatric services face long waittimes for initial appointments. In addition, most Americans are covered by insurance plans that utilize specialized companies to review the medical necessity for services and act as gate-keepers to prevent overuse of specialists. Because treatment by medical specialists (including psychiatrists) is deemed more expensive than treatment by primary doctors, managed care gatekeepers discourage family physicians from utilizing specialists. Each primary doctor's rate of specialist referrals is monitored, and those doctors who exceed the expected quotas are dropped from the provider panels. As a result, family doctors are pressured to treat a wide variety of medical conditions, including psychiatric problems. Instead of utilizing psychiatrists, American family doctors take it upon themselves to prescribe and

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monitor psychotropic medications, and in the US more than two-thirds of all psychotropic medications are prescribed by non-psychiatrist physicians.

Most family doctors, however, have little background in psychology or psychiatry and know little about psychotropics, and the disorders for which they are intended. This dilemma is particularly commonplace in the treatment of children. Pediatric psychiatrists and neurologists are in short supply and have waiting lists that exceed those of their adult counterparts. Thus, most psychotropic medications are prescribed to children by their pediatricians. As an example, psychostimulants, commonly used to treat the symptoms of attention-deficit hyperactivity disorder (ADHD), are the most often prescribed category of psychotropic medications used with children (Olfson, et al., 2002). Pediatricians most frequently prescribe these medications, although many do not have extensive knowledge about the pathophysiology and treatment of ADHD.

BENEFITS OF PEDIATRICIAN/PSYCHOLOGIST COLLABORATION

Because of their busy schedules, pediatricians spend a limited amount of time with each patient and cannot perform in-depth reviews of personal, family, developmental, health, and social history necessary for proper diagnosis of most psychological disorders. Conversely, psychologists are specifically trained in the diagnosis and treatment of mental disorders and traditionally see patients for one-hour appointments, usually weekly or bi-weekly. Thus, pediatricians can benefit from collaborative relationships with pediatric psychologists who can assist them in diagnosing and planning a comprehensive treatment of children who exhibit psychological disorders.

When children are placed on medications, pediatricians need to monitor the patients' progress and side effects. Many pediatricians, however, are not conversant with dose-response profiles and side effects of psychotropics. In addition, pediatricians may not be able to see their patients frequently enough, and long enough during each visit, to accurately screen these issues. Consequently, opportunities exist for properly trained psychologists to assist pediatricians with these tasks.

A collaborative relationship between a pediatric psychologist and a pediatrician will be most helpful to the pediatrician when the psychologist is intimately familiar with medical terminology and concepts, and the proper use of psychotropics (dosages and response profiles, side effects, etc.). Those psychologists who seek opportunities for such collaborative relationships need to obtain appropriate medical raining in order to become proficient in those areas.

ADHD is the most commonly diagnosed psychological disorder in the pediatric population (American Psychiatric Association, 2000). Consequently, the collaborative model advocated herein is especially applicable to the joint psychological/pediatric assessment and treatment of this disorder, and psychologist who are familiar with the psychological and medical treatment of ADHD are likely to be especially welcome by pediatricians.

ASSESSMENT

In order to properly diagnose ADHD, the child's developmental, behavioral, school, medical and social history must thoroughly be reviewed. In addition, objective rating scales should also be utilized to provide an objective rating of the severity of the symptoms. Pediatricians commonly utilize a brief interview with a parent (typically, the mother), and a brief observation of the child. Some also use a rating scale. While these methods may sufficient in some cases, many children present with a complex pattern of symptoms that require a more in-depth approach, and brief interviews and observations may be insufficient to perform an appropriate differential diagnosis. Psychologists are generally better able to perform such comprehensive evaluations to clarify the diagnosis.

Some disorders mimic the symptoms of ADHD. For example, children or adolescents presenting symptoms of agitation may also appear to be distractible, fidgety, and exhibit both poor control of emotional discharges and poor performance in school, all symptoms frequently seen in children with ADHD. Such young patients may be misdiagnosed with ADHD, whereas a mood disorder may be the accurate diagnosis. Of all mood disorders, children with bipolar disorders are especially likely to initially be diagnosed with ADHD (Bowring & Kovacs, 1992). The presentation of pediatric bipolar disorder often significantly resembles ADHD symptoms, with high activity level, impulsivity, distractibility, and poor judgment. Many children with bipolar disorder who are initially diagnosed with ADHD get worse when a treatment with psychostimulants is attempted (Biederman, 1998). An experienced psychologist may recognize that such children typically present with greater magnitude of

mood swings, sleep disturbance, and explosiveness, and will be invaluable to a pediatrician in clarifying the diagnosis.

About 70 percent of children with ADHD respond positively to stimulant medications (Jadad, et al., 1999; Spencer, et al., 1996), while about 30 percent do not. Children with comorbid conditions are especially likely to have a poor response to psychostimulants. Studies suggest that about one-fifth of children with ADHD have a comorbid depressive disorder (Biederman, et al, 1991). These disorders are easy to miss at first glance, as emotional disregulation and agitation are often attributed to ADHD. However, such symptoms may signal a depressive disorder and require a different approach to treatment. When a child presents with a comorbid ADHD and depression, the use of psychostimulants may not be a preferred first-line treatment. Studies have shown that some antidepressants exhibit efficacy rates for ADHD similar to those of psychostimulants, while concurrently addressing the symptoms of depression. Tricyclic antidepressants have historically been known to improve ADHD symptoms (Higgins, 1999). However, the side-effect profiles of these medications (iincluding, weight gain, sedation and possible cardiac problems) are often difficult to tolerate. Newer antidepressants, including buproprion (Conners, et al, 1996) and a newly approved compound atomoxetine (Kratochvil, et al., 2002), have shown efficacy in the treatment of both ADHD and depression with more favorable side effect profiles. When a psychologist determines that a child is exhibiting symptoms of ADHD and depression, he or she can assist the pediatrician in selecting a medication (or a combination thereof) that is more likely to be effective in addressing all of the symptoms.

Similarly, about one-sixth of children with ADHD present with a comorbid anxiety disorder (Newcorn, et al., 2001). Childhood fears and sleep problems, common with anxiety disorders, may be attributed to ADHD symptoms, or normal childhood variation. Yet, ADHD children who present with tendencies toward fear, anxiety, and obsessive behavior, are often very difficult to properly medicate. Psychostimulants exert their psychotropic effect by increasing the activity in the dopaminergic, and to a lesser extent, noradrenergic, pathways. Increasing the availability of these neurotransmitters may exacerbate the symptoms of fear, anxiety, and obsessive behaviors. Consequently, psychostimulants are not the best first-line medications to use with anxious or obsessive ADHD children. Instead, modafinil, an atypical stimulant, may be a good choice. Similarly, alpha-2 adrenergic agonists, such as clonidine or guanfacine, have also been shown to improve ADHD symptoms without increasing anxiety (Connor, et al, 1999). Psychologists can help pediatricians become more aware of the child's comorbid anxiety symptoms and influence the decision about which medication may be the best choice.

A child with comorbid ADHD and a tic disorder also warrants discussion. For many years, conventional wisdom has been that psychostimulants may exacerbate tics. Thus, any ADHD child with a comorbid history of tic behaviors was not a candidate for stimulants. Recent research has shown that this approach may be erroneous. The comorbidity between Tourette's Disorder (TD) and ADHD is significant, with more than 50 percent of children with TD suffering comorbid ADHD (American Psychiatric Association, 2000). Both disorders are likely due to dopamine transporter gene anomalies. Several studies have shown that children with TD and ADHD do respond to stimulant medications (e.g., Gadow, et al., 1995). When stimulants are used, both the ADHD and TD symptoms diminish. So, a pediatric psychologist may help a pediatrician decide that a trial of stimulant medications may be warranted in children with ADHD and comorbid tic disorders.

TREATMENT

Some parents are resistant to on-going mental health treatment. The reasons for this are complex. Limited medical coverage is one of the determining factors. In the United States, many families do not have the financial means or adequate insurance coverage to afford prolonged mental health care. Consequently, pediatricians may be reluctant to refer children to psychologists. However, parents are more receptive of a referral for a two-session consultation when it is clear that the purpose is to clarify the diagnosis. I have had much success with an approach where the first session is spent with the parents alone to review the description of symptoms and relevant personal, family, school, health and social history. The second session includes an interview/observation of the child. Between the sessions, parents fill out behavioral rating scales, such as the Conners Rating Scales (Conners, 1998), or Barkley's Home/School Situations Questionnaires (Barkley & Murphy, 2006). This evaluation can be performed within two weeks of the pediatrician's referral and allows the physician and parents to receive timely feedback about

the diagnosis and available treatment choices. Many pediatricians who refer children for an evaluation with a pediatric neurologist currently use this referral model. Pediatric psychologists familiar with medical and psychopharmacological issues can also be a viable referral choice for these pediatricians. A two-session evaluation with a pediatric psychologist is likely to be similar in cost to a neurological evaluation and can usually be performed more expeditiously because, in the United States, most psychologists do not have wait times as long as pediatric neurologists.

In other cases, parents seek to avoid medicating their children. Some parents feel that medical professionals overuse medications and are not receptive of non-medical treatments. Those parents seek alternative treatment approaches when they learn that their child exhibits symptoms of a disorder, such as ADHD. In those cases, pediatricians will also benefit from a referral to a medically-trained pediatric psychologist. The pediatrician can be assured that the psychologist is able to objectively determine whether medications are undeniably needed to treat the symptoms. In cases where treatment without medications is not likely to produce much benefit, parents may be more receptive to receiving such feedback from a non-medical professional, and may become more amenable to the need to return to the pediatrician to seek the necessary medications. On the other hand, in those cases where medications may not be absolutely necessary and utilizing non-medical options (for example, behavior modification) is a reasonable alternative, a psychologist can deliver such a service and monitor the child's progress. If the child responds sufficiently, the family received the necessary service and unneeded use of medications was avoided. If the response was insufficient, a referral for medications can be made along the way.

OUTREACH TO PEDIATRICIANS

Many pediatricians are not aware that some psychologists possess significant background in psychopharmacology. Traditionally, American psychologists have not received extensive training in medicine and the use of psychotropics, and many were generally critical of the use of psychotropic medications. Over the past two decades, however, more psychologists have been pursuing extensive training in psychopharmacology. Recently, two states (New Mexico and Louisiana) and one US territory (Guam) passed legislation allowing properly trained psychologists to prescribe psychotropic medications. Efforts continue in many other states to pass similar legislation, and hundreds of psychologists throughout the United States completed extensive medical training.

To educate physicians that some psychologists have sufficient background and training to contribute to decisions about medical treatments, significant outreach efforts are necessary. Psychologists need to communicate to physicians that (where appropriate) they are not only receptive to the use of medications, but also are competent in selecting, dosing and monitoring the use of psychotropics. Those psychologists who possess such a background in psychopharmacology, and are willing to perform focused, time-limited services, will complement pediatrician's services, and most pediatricians are likely to be comfortable jointly treating patients with such psychologists. A collaborative professional relationship between a pediatrician and a pediatric psychologist will be rewarding for both professionals, and will allow patients to receive efficient, efficacious and cost-effective services. Treating children with ADHD is an area where such a collaborative relationship is especially needed.

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Dispatch from the Battle Field: Hawaii's and Louisiana's Ongoing Struggles for Prescription Authority for Psychologists

Pat DeLeon. *former APA President*
Jim Quillin. *Louisiana Psychological Association President*

HAWAII

During last year's session of the Hawaii legislature, the Hawaii Psychological Association (HPA), under the leadership of Jill Oliveira-Berry and Robin Miyamoto, was successful in having the legislature establish an Interim Task Force to explore the feasibility of psychologists prescribing. HPA's two legislative champions co-chaired the group. This year, the Hawaii House of Representatives passed HR 2589, which would allow appropriately trained psychologists practicing within federally qualified community health centers and in medically underserved areas to prescribe. The legislation was supported by each of the 13 community health center medical directors; HMSA, the Blue Cross/Blue Shield plan of Hawaii; and the Hawai'i Nurses' Association. HPA's quest became the topic of radio debates and newspaper articles (including on the editorial page), where it received the enthusiastic endorsement of the Hawai'i Primary Care Association. The Senate Health Committee recommended the adoption of the House proposal and ultimately both legislative bodies agreed upon a compromise under which the State's Legislative Reference Bureau was directed to study the issue and report back their findings to the legislature for consideration in the 2007 legislative session. Included in this report is to be a review of the Department of Defense RxP experiences. In my judgment, HPA made considerable progress, particularly in educating the broader community regarding the clinical expertise of our profession, as well as truly engaging their membership in determining their own destiny. An insider's view of the process – Ray Folen:

Having previously passed through the House Health Committee, this prescriptive authority bill was recognized as having some 'legs' on it. It is an access to care bill for the underserved and uninsured people of our State seeking care in community health centers (CHCs). Psychologists, well represented in these areas, are in most cases unable to get the psychiatric support needed. Working collaboratively with primary care physicians has proven to be a successful alternative. They trust the medical psychologist's psychopharmacology skills and want them to operate more independently.

Psychology was well represented at the hearing. Robin and Jill, co-chairs of the HPA RxP Task Force, delivered exceptionally persuasive testimony, as did other HPA board members, doctoral-level psychology trainees, CHC staff, CHC medical directors, the APA Practice Directorate, the Louisiana Academy of Medical Psychologists, DoD prescribing psychologists, social workers, and community-based organizations such as the Hawai'i Primary Care Association. A number of psychologists working in CHCs testified and made compelling statements, but clearly the most powerful message they communicated to the legislature was their very presence in the rural and underserved communities.

Organized psychiatry, also realizing that the RxP bill had 'legs,' was particularly unkind at the hearing. It's amazing that some of our legislators still find their self-serving arguments persuasive. Does it matter that so few of them provide care to the underserved? Does it matter that they have not initiated any meaningful efforts to address the mental health problems of this population? Thankfully, some of our legislators continue to champion our efforts to increase access to care, despite the opposition.

"Psychiatry fervently brought out the same tired arguments. They reported that the number of Hawaii psychiatrists per capita is greater than in most other states, but failed to mention that very few psychiatrists will treat Medicaid, welfare or uninsured patients. Indeed, even in rural Honolulu, it is near impossible for a welfare patient to get an appointment with a psychiatrist. Psychiatry did their best to scare the legislature by conjuring up visions of psychologists killing patients and, of course, failed to mention evidence from the DoD reports, the GAO reports and the Louisiana psychologists that suggested a far more positive reality. Thankfully, several psychologists who testified late in the session had the opportunity to correct these distortions.

More egregious were the outright lies and misrepresentations. A state psychiatrist, attempting to minimize the severe lack of psychiatric services, testified

that 'every square mile of the State is covered by psychiatrists in the Adult Mental Health Division,' but forgot to mention that the Division provides services only to the SMI population. After Robin spoke eloquently and in detail about the additional training prescribing psychologists receive, a psychiatrist told the legislators it was an '11 week training program.' After Robin provided a map showing where psychologists were providing services in Medically Underserved Areas, a psychiatrist testified that psychologists don't work in underserved areas. We were also amused by the creativity of the testimony: one psychiatrist said we don't read medical journals and therefore shouldn't prescribe; another psychiatrist showed a graph with two years of RxP training presented as two hours. When pressed by the legislators to define the minimum training necessary to prescribe, the psychiatrists reluctantly suggested the training required for licensure as an APRN. When asked what that training entailed, they didn't have a clue! A Professor of Psychiatry called both psychology and the legislature 'immoral' for promoting the bill.

One of the more disturbing moments at the hearing was when a noticeably medicated patient read testimony that had been prepared for her in opposition to RxP. The patient stumbled over words she could not pronounce and obviously had not seen before, parroting arguments that she didn't appear to understand.

Over the past two decades we have placed many psychologists in underserved areas of the State; psychologists are in 80% of all CHCs and the goal is to have 100% by the end of 2006. We have articulated a financial model that will allow CHCs to easily recoup the costs of hiring medical psychologists. We have a school (Argosy University/Honolulu) with a primary mission of training psychologists to work with diverse and marginalized populations. We have a post-doctoral psychopharmacology training program in place. On the other hand, psychiatry is placing only 3% of its graduates in underserved areas. It can't fill psychiatry residency positions without recruiting 40% from foreign countries. Psychiatry's goal at the hearing was to install fear and confusion in the legislature. In the past, this strategy was effective. It appears, however, that the reasoned word is gaining ascendancy." And, we would add, that HPA's membership is fully engaged.

LOUISIANA

The culmination of a decade of work and four legislative sessions came in 2004 when the Governor of Louisiana signed the Medical Psychologist statute authorizing specially trained psychologists (medical psychologists) [MPs] to prescribe medications in the management of psychiatric disorders. Following implementation of this statute with the promulgation and publication of the necessary enacting regulatory language by the Louisiana Board of Examiners of Psychologists, appropriately credentialed MPs began practicing with this expanded capability. However, the state mental health system, dominated and controlled by psychiatrists who had vigorously opposed this legislation, refused to make the necessary allowances for state service MPs to practice within the fullest extent of the law. The low mark (to date) for this opposition came immediately following Hurricane Katrina when the state's Office of Mental Health quietly scrapped plans to utilize its own state employed MPs in the delivery of emergency psychiatric services associated with the storm and its aftermath, reassigning key state office MP personnel instead to non-clinical activities and support services of various kinds. Thus, in late 2005, the Louisiana Psychological Association (LPA) and its sister organization the Louisiana Academy of Medical Psychologists (LAMP) again joined forces with APA's Practice Directorate and CAPP to address this unacceptable state of affairs.

Early on an antiquated 'Mental Health' statute was targeted for revision as, among other problematic provisions, it held that only a physician could order or prescribe medication for patients in the state's mental health system. Interestingly, during the development of a legislative strategy to correct this problem, it was learned that the Louisiana Nurse Practitioners Association had also been eyeing this statute and, in the hopes of revising it so that nurse practitioners (NPs) could function independently within the state psychiatric system, had planned to pre-file a bill in the 2006 legislative session that would make NPs and MDs functionally equivalent within this system. We elected to amend this legislation, after its introduction so that MPs could prescribe within the state's mental health system and to work cooperatively with the NPs toward some of our common interests. Politics, as you know, however, can make for some strange bedfellows.

At the outset, the psychiatry controlled Office of Mental Health, upon learning of our plans to amend this bill approached the NPs with the intent of trying to work out a compromise that would give NPs some increased role in the public mental health system. The crux of the proposed bargain, however, was to have been the rejection of any effort to pass an amendment involving the explicit recognition of MPs in this legislation. Understandably, the NPs needed to seriously consider such a compromise as it might have been in their best interest to help throw MPs under the bus if it would help assure the passage of their

legislation. However, at the initial legislative hearing it quickly became clear to the NPs that psychology was an exceptionally formidable player and that the best way to avoid the underside of the bus themselves was to tuck in behind us and follow our blocks. At that committee hearing, the matter was deferred for a week and the Office of Mental Health ceased to be a significant player in this matter. However, the Louisiana State Medical Society, the Louisiana State Psychiatric Medical Society, the Louisiana State Board of Medical Examiners and, interestingly, the Office of Louisiana Advocacy Services (who were vehemently opposed to NPs having the authority of issuing 'emergency certificates' or PECs for short term commitments, as could physicians and certain psychologists under prevailing law) all opposed the legislation on the table. In an interesting turn of events, at a second hearing in the same committee the following week, psychology was approached by the Medical Society. It seemed that their greatest concern was the emerging independence of the NPs and, unlike their psychiatric-counterparts, they were relatively less exercised by the prospects of MPs being explicitly recognized in this instrument. Understandably, we were interested in how our joint interests could be achieved but we were not willing to jettison the NPs, and as the session unfolded we continued to work with all sides toward a framework of language that might be acceptable to the principles in this matter.

Here I must honestly tell you that of all the sides on this issue, the Medical Society was the easiest organization with which to work. They were straightforward and open to equitable compromise. In the end, with our assistance, much work and the leadership of the Chair of the House Health Committee, such a compromise was struck. It removed the language recognizing NPs in the mental health statute and instead recognized only Psychiatric Mental Health Nurse Practitioners. For psychology in general, the compromise language changed a provision limiting the authority to execute a PEC to only clinical or counseling psychologists to psychologists with 'a clinical specialty,' specialties that will be determined by the Louisiana Board of Examiners of Psychologists. It also included psychologists, medical psychologists and psychiatric mental health nurse practitioners in the definition of 'primary care providers' of mental health services. Moreover, the compromise language provided for the specific credentialing of medical psychologists and psychiatric mental health nurse practitioners to practice within the fullest extent of their respective authority within the state's mental health facilities. Lastly, the language restricting the prescribing of medications in the state system to physicians was changed to read as follows: 'No medication may be administered pursuant to the provisions of this Chapter, except upon the order of a physician, medical psychologist or psychiatric mental health nurse practitioner. The physician, medical psychologist or psychiatric mental health nurse practitioner is responsible for all medications which he has ordered and which are administered to the patient.'

LAMP, LPA, the medical society, the psychiatric society, and the nurse practitioners all signed off on this language (the Advocacy Office still opposed psychiatric nurse practitioners having PEC authority). Unfortunately, sweeping compromise such as this take a great deal of time and effort and, while it subsequently swept through the House Health Committee unanimously (an earlier version had passed the Senate at both the committee and floor levels), it languished on the House floor late in the session jammed up behind hundreds of other bills. In order for it to become law, it had to pass the House floor and return to the Senate floor for concurrence, as it was considerably altered from its original language. All of this had to occur in the last week of the legislative session.

On the Friday before the last day of the session the following Monday, our bill was scheduled to be heard on the House floor. Just as it was called up, a term limited Representative asked the Speaker for a personal privilege and rose to say his formal good-byes to his fellow legislators. He finished at 6:05 PM and as our bill was then called up, the Secretary of the House advised the Speaker that under changes made in the Louisiana Constitution several years earlier, no bill, except those being heard for concurrence from the other chamber could be heard after the 85th day of the legislative session or 6:00 PM that day!! After quickly reviewing the constitution, it was determined, however, that with a two-thirds vote by both chambers this provision of the Louisiana Constitution could be overridden and a bill kept alive.

While this had never successfully been done before, we were determined to be the first to do so and, after making the appropriate motions, had this historic move put to a vote on the floor. However, the House was in a foul, late session mood and angry that the Senate was not moving on House bills at this late hour. Two former Speakers of the Louisiana House rose in opposition as ours was a Senate bill and, requiring a two-third vote margin we received only 67 of the 70 necessary votes.

We (LAMP/LPA lobbyists, Bud Courson and Jim Nickel, the NP lobbyist and myself) retired to the quiet of the by now nearly deserted area just outside the House chamber and were joined by the House sponsor of this bill who, physically and psychologically exhausted, was weeping and apologizing because we had failed. In a scene that will

stick with me forever, Bud gently hugged this long time champion of health causes and told her not to feel badly. He spoke softly to us as we huddled in the gathering dimness of the evening, whispering that we had come too far and reminding us that miracles are our specialty. We resolved to return again Sunday evening, Father's Day, to make another run at this historic effort. A few minutes later after we had coordinated our schedules and said our good-byes, I walked to a nearby bench where my wife had been waiting so that we could go to dinner when suddenly, out of the corner of my eye, I saw Bud sprinting back toward the House Chamber. I caught him as he reached a side doorway gazing in at something only he could see. After what seemed an eternity, he turned to me and simply said, 'Now is the time.' We eased into seats in the empty gallery behind the floor. One of the former Speakers who had spoken in opposition to us was seated just in front of us. He whirled in his seat towards us and said defiantly that this vote would also fail. Moments later, he was proven wrong, as the Louisiana House of Representatives voted by a vote of 81 to 10 with 13 absent to override the constitution and allow our bill to be heard. Later that night just before adjournment, we moved to the other Chamber where the Senate voted by 35-0 to likewise suspend the constitution and allow a vote on our bill. On Father's Day, the Louisiana House of Representatives took up our bill and voted it out favorably by a 90 to 7 margin with 7 others absent. The following day, the last day of the 2006 legislative session, the Louisiana Senate followed suit and passed out bill out with a favorable 35-0 vote. Governor Kathleen Blanco signed this bill into law on June 29th as Act 664. It becomes effective August 15th.

As I tried to sleep the night we were able to override a constitutional barrier to keep our hopes alive, my mind replayed the history I'd been privileged to witness that evening. I thought about psychology and how far we've come. I thought about those who have despaired of achieving legislative success and wished they had been with me. I thought of a cold day in a duck blind many years ago when my father told me that there would come times in my life when I'd remember what he was to tell me – 'Son, if you don't quit, you win.' He was right.

For those who are personally interested in pursuing the RxP agenda, there are outstanding training programs targeted towards full-time practitioners. And, I would suggest that one should seriously consider becoming credentialed as a "medical psychologist" in the State of Louisiana. Licensure mobility was a very high priority for APA Past President Ron Levant and Russ has been working closely with the Association of State and Provincial Psychology Boards (ASPPB), the American Board of Professional Psychology (ABPP), and the National Register of Health Service Providers in Psychology to make this a reality and thereby bring our profession into the 21st century. In an era of telehealth technology and instant virtual communications, geographical distances will no longer be an acceptable rationale (i.e., excuse) for less than optimal healthcare. The 21st century will present exciting opportunities for those with vision and those who dare to vigorously pursue the future and especially for those "who don't quit" .

State of California: Bill number SB 993 allowing psychologists to prescribe Psychotropic medication

Bill text introduced by Senator Calderon on February 23, 2007

An act to amend Section 2904 of, and to add Article 1.5 (commencing with Section 2919.10) to Chapter 6.6 of Division 2 of, the Business and Professions Code, relating to healing arts.

LEGISLATIVE COUNSEL'S DIGEST

SB 993, as introduced, Calderon.

Psychologists: scope of practice: prescribing drugs.

Existing law, the Psychology Licensing Law, provides for the licensure and regulation of the practice of psychology by the Board of Psychology in the Department of Consumer Affairs. Existing law excludes prescribing drugs from the scope of practice of a licensed psychologist.

This bill would, with certain exceptions, authorize the board to grant a prescription certificate or a conditional prescription certificate to a licensed psychologist authorizing, within the scope of practice of a psychologist, the prescription of certain drugs if certain conditions are met.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS

SECTION 1. The Legislature finds and declares all of the following:

(a) The delivery of comprehensive, accessible, and affordable medical care may be enhanced by providing trained medical psychologists, licensed in California, with limited prescriptive authority for the specific purpose of providing integrated mental health care services. The Legislature has previously authorized prescription privileges to advanced nurse practitioners, optometrists, dentists, podiatrists, osteopaths, physician assistants, and naturopaths.

(b) Psychologists with appropriate credentials have been allowed to prescribe medications to active duty personnel and their families in military facilities for many years. Louisiana and New Mexico are two states that have adopted legislation authorizing prescriptive authority for psychologists.

(c) For many years, psychologists in California have been allowed to discuss and recommend psychotropic medications to both patients and physicians. California psychologists routinely collaborate with primary care physicians to provide combined therapy and psychopharmacological care for their patients.

California psychologists have independent hospital privileges.

(d) California licensed psychologists complete an average of seven years of postbaccalaureate study and three thousand hours of postgraduate supervised practice in the diagnosis and treatment of mental illness. Medical psychologists have earned additional Master of Science degrees in clinical psychopharmacology, or its equivalent, and passed a national examination in psychopharmacology. Because the current scope of medical psychologists' practice in California does not include prescribing medications, patients must consult with and pay for another provider to obtain the requisite prescription.

However, physicians are not readily available in many areas and for minority populations.

(e) This is a particular hardship for patients residing in health care treatment shortage areas and in rural areas.

For patients who require treatment in county and state mental health facilities, including the Department of Corrections and Rehabilitation, medical psychologists could eliminate the problem of access to care and psychiatrist shortages while significantly enhancing mental health treatment. Timely, efficient, and cost-effective treatment of mental illnesses could avoid the significantly greater social, economic, and medical costs of nontreatment for these needy populations.

(f) Research data soundly demonstrates that there is not enough mental health care available to serve the needs of all people in the California due to the severe shortages of psychiatrists. Further, the economically disadvantaged and medically underserved would receive little or no mental health services if not for the services provided by clinical psychologists.

(g) The State of California has long recognized the extraordinarily deficient mental health care of its citizens.

California has some of the highest rates of untreated

psychological concerns in the United States. Recent concerns include the receivership of the prison system due to the state's inability to provide adequate mental and physical health care to inmates. There are several outstanding lawsuits against the State of California alleging that inmates and patients at state mental hospitals are not receiving constitutionally adequate mental health care due to the severe shortage of competent psychiatrists.

h) Further exacerbating the dire need for mental health treatment in underserved areas is the fact that patients from diverse cultural backgrounds are reluctant to seek treatment due to the stigma of mental health problems. Timely access to accurate diagnosis and effective treatment of emotional and behavioral disorders also may contribute substantially to the state's responsibilities to children and needy adults in underserved rural areas.

(i) Professional psychology has developed a model curriculum for the education and training of prescribing psychologists. Independent evaluations of the Department of Defense Psychopharmacological Demonstration Project by the United States General Accounting Office and the American College of Neuropsychopharmacology have found that appropriately trained medical psychologists prescribe safely and effectively. Two states, New Mexico and Louisiana, and the territory of Guam, now allow appropriately trained psychologists to prescribe psychotropic medications. Psychologists in the military have been providing medication services to personnel and their families since 1990. Hundreds of thousands to over 1,000,000 prescriptions written by psychologists with not one patient injured.

This record far exceeds the safety records of any prescribing class of professionals.

SECTION 2. Section 2904 of the Business and Professions Code is amended to read:

2904. The practice of psychology shall not include prescribing drugs, performing surgery or administering electroconvulsive therapy. The practice of psychology shall not include prescribing drugs, except as authorized pursuant to Article1.5 (commencing with Section 2919.10)

SECTION 3. Article 1.5 (commencing with Section 2919.10) is added to Chapter 6.6 of Division 2 of the Business and Professions Code, to read:

Article 1.5. Prescription Certificate and Conditional Prescription Certificate.

2919.10. As used in this article the following terms have the following meanings, unless the context otherwise requires:

(a) "Board" means the Board of Psychology.

(b) "Collaborative relationship" means a cooperative working relationship between a psychologist holding a conditional prescription certificate and a doctor of medicine in the provision of patient care, including diagnosis and cooperation in the management and delivery of physical and mental health care.

(c) "Narcotics" mean natural and synthetic opioid analgesics, and their derivatives used to relieve pain.

(d) "Nonpsychotropic treating formulary" means any medication that is labeled to treat adverse conditions caused by a psychotropic medication.

(e) "Prescribing mental health professional" means a medically trained and licensed physician, psychiatrist, advance practice nurse, or nurse practitioner specializing in mental health care.

(f) "Psychotropic medication" means only those agents related to the diagnosis and treatment of mental and emotional disorders, including controlled substances, except narcotics.

2919.15. (a) A psychologist may apply to the board for a conditional prescription certificate. The application shall be made on a form approved by the board, and be accompanied by evidence satisfactory to the board, that the applicant complies with all of the following:

(1) Holds a current license in good standing to practice psychology in the state.

(2) Has successfully completed a planned sequence of psychopharmacological training from an institution of higher learning approved by the board, or from a continuing education program consistent with professional psychology's postdoctoral training in psychopharmacology or has been recommended by the National Alliance of Professional Psychology Providers. Any applicant who has received a postdoctoral Master of Science degree in psychopharmacology from a regionally accredited institution of higher learning, or an educational institution approved by the state to provide this education, or received a certificate of completion from an approved provider of continuing education designated by the board to provide this training to California licensed psychologists, shall be deemed as meeting the requirements of this section. This training shall include didactic classroom instruction in at least the following core areas of instruction:

(A) Anatomy and physiology.

(B) Biochemistry.

(C) Neurosciences.

(D) Pharmacology.
(E) Psychopharmacology.
(F) Pathophysiology.
(G) Health assessment, including relevant physical and laboratory assessment.
(H) Clinical pharmacotherapeutics.

(3) Has passed a national proficiency examination, approved by the board, that tests the applicant's knowledge of pharmacology in the diagnosis, care, and treatment of mental disorders. The board shall establish what constitutes a passing score and the number of times an applicant may retake the exam within a specific time period.

(4) Applies for a federal Drug Enforcement License for limited use as restricted by state law.

(5) Meets all other requirements, as determined by rules adopted by the board pursuant to obtaining a conditional prescription certificate.

(b) The board shall issue a conditional prescription certificate if it finds that the applicant has met the requirements of this section.

2191.20. (a) A psychologist holding a conditional prescription certificate may administer and prescribe psychotropic medication within the recognized scope of the profession, including the ordering and review of laboratory tests in conjunction with Prescribing medication for the treatment of mental disorders.

(b) When prescribing psychotropic medication for a patient, a psychologist holding a conditional prescription certificate shall maintain an ongoing collaborative relationship with the medical practitioner who oversees the patient's general medical care to ensure that necessary medical examinations are conducted, and to be aware of any significant changes in the patient's physical condition.

(c) A prescription written by a psychologist with a conditional prescription certificate shall do all of the following:

(1) Comply with applicable state and federal laws.

(2) Be identified as issued by the psychologist as a "Medical Psychologist."

(3) Include the psychologist's board number or the identification number assigned by the department of commerce and consumer affairs.

(d) A psychologist holding a conditional prescription certificate shall not delegate prescriptive authority to any other person.

Records of all prescriptions shall be maintained in the prescribing psychologists' patient records.

(e) When authorized to prescribe controlled substances, a psychologist holding a conditional prescription certificate shall file with the board in a timely manner all individual federal Drug Enforcement Agency registrations and numbers.

2191.25. (a) A psychologist may apply to the board for a prescription certificate. The application shall be made on a form approved by the board and be accompanied by evidence satisfactory to the board that the applicant complies with all of the following:

(1) Has been issued a conditional prescription certificate and has successfully completed one year of prescribing psychotropic medication.

(2) Holds a current license to practice psychology in California.

(3) Meets all other requirements, as determined by rule of the board, for obtaining a prescription certificate.

(b) The board shall issue a prescription certificate if it finds that the applicant has met the requirements of subdivision (a).

2191.30. A psychologist with a prescription certificate may prescribe psychotropic medication if the psychologist complies with all of the following:

(a) Continues to hold a current license to practice psychology in California.

(b) Complies with the requirements set forth in paragraph (2) of subdivision (a) of Section 2919.15.

(c) Annually satisfies the continuing education requirements for psychologists, if any are set by the board.

2191.35. (a) By July 1, 2008, the board shall adopt rules pursuant to establishing the procedures to be followed to obtain a conditional prescription certificate, a prescription certificate, and renewals of a conditional prescription certificate and prescription certificate. The board may set reasonable application and renewal fees.

(b) The board shall adopt rules pursuant to establishing the grounds for denial, suspension, or revocation of a conditional prescription certificate and prescription certificate including a provision for suspension or revocation of a license to practice psychology upon suspension or revocation of a conditional prescription certificate or prescription certificate. Actions of denial, suspension, or revocation of a conditional prescription certificate or a prescription certificate shall be in accordance with this chapter.

(c) The board shall maintain current records on every prescribing psychologist, including federal registrations and numbers.

(d) The board shall provide to the California State Board of Pharmacy an annual list of psychologists holding a conditional prescription certificate that contains the information agreed upon between the board and the board of pharmacy. The board shall promptly notify

the board of pharmacy of psychologists who are added or deleted from the list.

(e) The board shall be the sole and exclusive administrative body to implement and oversee this article.

2191.40. (a) This article shall not be construed to permit a medical psychologist to administer or prescribe a narcotic.

(b) This article shall not apply to any of the following:

(1) Any person teaching, lecturing, consulting, or engaging in research in psychology insofar as the activities are performed as part of or are dependent upon employment in a college or university, provided that the person shall not engage in the practice of psychology outside the responsibilities of the person's employment.

(2) Any person who performs any, or any combination, of the professional services defined as the practice of psychology under the direction of a licensed psychologist in accordance with rules adopted by the board, provided that the person may use the term "psychological assistant," but shall not identify the person's self as a psychologist or imply that the person is licensed to practice psychology.

(3) Any person employed by a local, state, or federal government agency in a school psychologist or psychological examiner position, or a position that does not involve diagnostic or treatment services, but only at those times when that person is carrying out the functions of that government employment.

(4) Any person who is a student of psychology, a psychological intern, or a resident in psychology preparing for the profession of psychology under supervision in a training institution or facility and who is designated by a title as "psychology trainee," "psychology student," "psychology intern," or "psychology resident," that indicates the person's training status; provided that the person shall not identify the person's self as a psychologist or imply that the person is licensed to practice psychology.

(5) Any person who is a member of another profession licensed under the laws of this jurisdiction to render or advertise services, including psychotherapy, within the scope of practice as defined in the statutes or rules regulating the person's professional practice, provided that the person does not represent the person's self to be a psychologist or does not represent that the person is licensed to practice psychology.

(6) Any person who is a member of a mental health profession not requiring licensure, provided that the person functions only within the person's professional capacities, and provided further that the person does not represent the person to be a psychologist, or the person's services as psychological.

(7) Any person who is a duly recognized member of the clergy; provided that the person functions only within the person's capacities as a member of the clergy; and provided further that the person does not represent the person to be a psychologist, or the person's services as psychological.

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BEHAVIOURAL ACTIVATION AND THE DEMEDICALIZATION OF DEPRESSION

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Behavioural Activation (BA) emerges as the most effective therapy for treating depression. It has been shown to be more effective than cognitive therapy, and of similar effectiveness to but more efficient than medications used for treating major depression. BA therapy considers depression in contextual terms, trying to help depressed persons 'get their lives back'. BA represents an alternative view to the deficit models of depression that prevail in clinical settings, be they based on brain chemistry or psychological mechanisms.
Key words: *Depression, Behavioural Activation, Cognitive Therapy, Antidepressants*

La Activación Conductual (AC) emerge como la terapia más eficaz para la depresión. Ha mostrado ser más eficaz que la Terapia Cognitiva y tan eficaz pero más eficiente que la medicación para la depresión mayor. La AC entiende la depresión en términos contextuales y trata de ayudar a las personas deprimidas a reengancharse en sus vidas. La AC representa una alternativa a los modelos del déficit de la depresión que dominan el discurso clínico, sea en términos de química cerebral o de mecanismos psicológicos.
Palabras clave: *Depresión, Activación Conductual, Terapia Cognitiva, Antidepresivos*

Behavioural Activation (BA) is a new therapy for depression. In principle, the appearance of a new therapy for depression should not come as a surprise, since depression is one of the psychological disorders that respond most favourably to therapy, provided it is minimally coherent. Indeed, it is no coincidence that effective therapies for depression are so numerous (Pérez Álvarez & García Montes, 2003). The novelty of BA lies in the fact that it calls into question current clinical practices, even going so far as to propose the demedicalization of depression.

CURRENT CLINICAL PRACTICES CALLED INTO QUESTION

Doubts in relation to clinical practices refer to both medication and cognitive therapy. Medication is undoubtedly the most widely used treatment for depression at the present time. But it so happens that the enormous increase in the incidence of depression in developed countries over the last 25 years can be linked precisely to the availability of medication, not to mention the obvious influence of pharmaceutical marketing. And this is the case despite the fact that the new antidepressants, to which, ironically, the increase in depression is attributable, are neither as effective as the classic antidepressants – at least for the most severe depressions – nor free from harmful effects, as it was assumed when they were launched. What is an indisputable fact is the tremendous cost to healthcare systems of antidepressant medication. According to data from the Spanish Ministry of Health, consumption of antidepressants in this country rose from 7,285,182 bottles sold on Social Security prescription in 1994 to 21,238,558 in 2003. Up to now, antidepressant medication was justified on the basis of an assumed superior efficacy, compared to psychological therapy, in the treatment of major depression. As regards 'minor depression' (from mild to moderate), the efficacy of psychological therapy is also acknowledged. Even so, medication is also the commonest treatment for mild and moderate depression, which are indeed the categories that cover most diagnosed cases of depression (see, in relation to this, González Pardo & Pérez Álvarez, in press; Healy, 2004; Leventhal & Martell, 2006; Medawar & Hardon, 2004).

But BA has shown itself to be as effective as medication in major depression (Dimidjian, Hollon, Dodson et al., 2006). This finding calls into question the choice of medication as the preferred treatment for depression. Likewise, it raises doubts over the supposed biological

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nature of depression, and in any case its consideration as an illness. Furthermore, if we consider that a large part of patients with major depression (between 26 and 66% of primary care patients) would choose psychological therapy over medication if given the option (Craven & Bland, 2006), we might also question the health policies that continue to promote the availability of medication to the detriment of psychological therapy of proven effectiveness. All in all, BA appears to provide powerful reasons for the demedicalization of depression (Jacobson & Gortner, 2000; Pérez Álvarez & García Montes, 2003), bearing in mind that its growing incidence largely corresponds to the medicalization of unhappiness, suffering, dissatisfaction, misfortune, dissatisfaction and sadness (Dworkin, 2001; Pilgrim & Bentall, 1999).

As far as psychological treatments for depression are concerned, cognitive therapy is probably the most widely used, and certainly that which has been most frequently compared with medication. We are talking specifically here about Aaron Beck's Cognitive Therapy for Depression (CT) (Beck, Rush, Shaw & Emery, 1979/1981). Following its inclusion as part of a significant research programme on the treatment of depression under the auspices of the US National Institute of Mental Health (Elkin, Shea, Watkins et al., 1989), CT attained a degree of fame over and above the other psychological therapies (including interpersonal therapy, which also formed part of this study, and despite the fact that it was actually superior to cognitive therapy). In any case, CT continued to show its efficacy in comparison to medication in subsequent studies (DeRubeis, Hollon, Amsterdam et al., 2005; Hollon, DeRubeis, Shelton et al., 2005).

But however efficacious CT may be, the question arises as to whether its efficacy is due to the therapy as a whole or rather one or more of its components, in particular, the behavioural or the cognitive ones. This question is not only of empirical-technical interest in relation to the specification of the active components with a view to perfecting the therapy, but also has important implications related to the status of CT and the nature of the depression concept itself. Specifically, if it turned out that the behavioural component by itself was just as effective as the complete therapy, the cognitive component – and hence the status of the therapy – would be called into question. And this is indeed what the relevant research shows (Jacobson, Dodson, Truax, Addis & Koerner, 1996). From the clinical point of view this would not, in principle, constitute a problem, insofar as we would be talking about the same efficacy but possibly greater efficiency. Confirmation of this research finding could lead to the constitution of the behavioural component as a full-blown therapy in its own right. This is actually what has happened, giving rise to the so-called BA therapy. Moreover, BA has succeeded in showing even greater efficacy than CT itself (Dimidjian et al., 2006). It is somewhat ironic that one of the CT components, duly exploited in isolation from the cognitive element, turns out to be more effective than the full therapy, applied with all of its assumptions.

Thus, BA would not be just another psychological therapy to fall in line along with the cognitive-behavioural therapies; rather, it actually calls into question CT itself, both its bases and its procedure. With respect to CT, BA represents a radically different model. Whilst CT endorses a medical model of psychotherapy, BA endorses a contextual model. In this sense, BA contributes to the demedicalization of depression that would also be desirable in psychological therapy represented by CT.

ORIGIN AND DEVELOPMENT OF BA

As already noted, the origin of BA lies in research on the components of CT (Jacobson et al., 1996). The components of CT fall into two broad classes of techniques: behavioural and cognitive. It goes without saying that the cognitive techniques constitute the essential part of the therapy, in accordance with the cognitive model of depression proposed by the therapy itself. The cognitive model of depression maintains that depressive individuals have certain cognitive schemas (assumptions or beliefs) that predispose them to negative interpretations of life events (cognitive distortions and automatic thoughts), which in turn lead to depressive behaviours (reduced activity and low mood). Thus, CT includes techniques designed to activate behaviours and to address distortions or automatic thoughts and schemas or underlying beliefs. The first objective is carried out by means of behavioural techniques, and the other two by means of cognitive techniques, some dealing with the automatic thoughts and others with the underlying beliefs. Although the therapy usually starts with the behavioural techniques, its efficacy is considered to be due primarily to the cognitive techniques, and all the more insofar as they restructure the underlying depressogenic schemas, which are (according to the corresponding cognitive hypothesis) the root cause of the depression.

Since CT is a multi-component package, explanations alternative to the *cognitive hypothesis* can be considered. Specifically, we might consider two alternative hypotheses: the *activation hypothesis* and the *coping hypothesis*. According to the activation hypothesis, efficacy would be attributable to what the therapy does to 'activate' patients and put them in contact with potentially beneficial environmental conditions. According to the coping hypothesis, efficacy would be due to the skills learned during the therapy for dealing with events and dysfunctional automatic thoughts. According to the cognitive hypothesis, efficacy would be due to restructuring of the underlying depressogenic schemas. In order to test these hypotheses, Jacobson designed a study in which these three conditions were carefully compared (Jacobson et al., 1996):

1)behavioural activation in relation to the activation hypothesis,
2)behavioural activation plus modification of dysfunctional automatic thoughts in relation to the coping hypothesis, and
3) full CT in relation to the cognitive hypothesis

The behavioural activation condition consisted in the behavioural techniques component of CT: programming of activities, rating of 'mastery and pleasure' of activities performed, graded task assignments, covert rehearsal of activities, discussion of specific problems and development of social skills. The behavioural activation plus modification of dysfunctional automatic thoughts condition consisted in adding to the previous condition techniques such as the detection of thoughts preceding mood changes, daily record of dysfunctional thoughts associated with events, review of negative thoughts, training in more realistic thoughts, reattribution of events and testing of negative interpretations. The CT condition consisted in the complete therapy, so that in addition to the above conditions it included cognitive techniques aimed at modifying the schemas, such as discussion of the underlying beliefs causing the depressive problems, identification of the basic assumptions and beliefs, the proposal of alternative assumptions, discussion of the advantages and disadvantages of different beliefs, discussion of the short- and long-term advantages of the different beliefs, assignment of tasks to do at home with a view to testing the validity of the beliefs and review of beliefs associated with events (Beck et al., 1979/1981).

If the structural changes in the underlying schemas are truly necessary for the treatment of depression, then CT (condition 3) should be significantly more efficacious than a therapy consisting of only the modification of dysfunctional automatic thoughts (condition 2), and certainly than one made up of no more than behavioural activation (condition 1).

The finding was that none of the three conditions was superior to the others, all of them yielding an efficacy comparable to that already yielded by CT in previous studies. The results show that behavioural activation is as effective as the complete therapy; they also suggest that cognitive techniques are not necessary for therapeutic change. Thus, the results confirm the activation hypothesis as against the coping hypothesis and the cognitive hypothesis. Given the rigour of the study, it was ruled out that the results could be due to overlapping of the treatments (which were indeed different in accordance with their own protocols) or the inadequate application of CT, which was in fact applied by accredited cognitive therapists (Jacobson et al., 1996). Furthermore, these results were maintained in two-year follow-up, so that it could not be alleged that the cognitive therapy did not have time to show its contribution (Gortner, Gollan, Dodson & Jacobson, 1998).

This finding gave rise to the proposal of behavioural activation, up to now a component of CT, as a therapy in itself, but the consideration of BA as a therapy *per se* involved its reappraisal as a therapy that was strictly speaking behavioural. Thus, it is resituated in the tradition and the perspective of the functional analysis of depression as established by Ferster (1973), after Skinner (1957/1981). According to Ferster's analysis, depression would consist basically in the reduction of positively reinforced behaviours (reduction of interesting activities) and/or the increase of negatively reinforced behaviours (consisting in the avoidance of something negative more than in the attainment of something positive). It is understood that this situation is due to gradual or abrupt changes in personal circumstances. The point here is that depression involves a *situation* in which things that were previously of value or worthwhile have lost their value, or even taken on a negative value. Thus, depression would be more of a situation *in which* one finds oneself than something one has *within oneself*.

Likewise, BA is akin to the behaviour therapy for depression developed by Lewinsohn and colleagues from the 1970s onwards (Lewinsohn, Muñoz, Youngren & Zeiss, 1978; Lewinsohn & Gotlib, 1995). Lewinsohn's therapy stresses the development of pleasant activities

and social skills. However, with respect to Lewinsohn's behaviour therapies for depression and others that could be cited (see Pérez Álvarez & García-Montes, 2003), BA incorporates some important new aspects (Hopko, Lejuez, Ruggiero & Eifert, 2003).

First of all, BA is more idiographic than traditional behaviour therapies (and certainly than CT), insofar as it pays more attention to the personal circumstances that maintain a specific individual's depressive behaviour. In this line, and secondly, BA involves functional analysis of both the depressive behaviour and the activities proposed. Thus, for example, more than merely increasing activities assumed to be pleasant (or simply drawing up schedules), BA proposes activities that are relevant to the needs and values of that particular person. Thirdly, BA incorporates the acceptance-change model that already formed part of Acceptance and Commitment Therapy (ACT) (Wilson & Luciano, 2002). Thus, it proposes that patients carry out activities in spite of their mood or the negative thoughts they may have. In any case, the 'acceptance' of BA is oriented more towards change than to acceptance *per se*, since it is more a case of modifying the conditions on which the 'depressive experience' depends than accepting such experience in line with a 'philosophy of life'. A propos of ACT, BA also introduces the concept of avoidance, even if it refers to behavioural avoidance rather than experiential avoidance (as we shall see later). Fourthly, BA acknowledges the implication of cognition in depression, but does not consider it to be the immediate cause of the overt behaviour, or that it should be the direct object of treatment. BA 'treats' cognitions and emotions indirectly, on putting people in contact with the possible positive consequences of their overt behaviour.

CONTEXTUAL PHILOSOPHY

BA represents first of all a recovery of the contextual roots of behaviour therapy (Jacobson, 1997; Jacobson, Martell & Dimidjian, 2001).

In what could be considered as its first-generation version, from the 1950s, behaviour therapy had a markedly contextual approach, on stressing environmental contingencies as determinants of behaviour, including problematic behaviour. An example of this approach would be Ferster's (1973) above-mentioned functional analysis of depression (1973). In this sense, behavioural change would involve change in the environment in relation to it. This environmental change can be 'operated' by the therapist insofar as the necessary conditions are available – which often restricts things to institutional contexts. Another possibility for the therapist to 'manage' the environment lies in the clinical situation. This possibility was developed in particular by functional analytical psychotherapy (Kohlenberg, Tsai, Parker, Bolling & Kanter, 1999). Environmental change can also be 'operated' by patients, if they do something that can alter the circumstances in a beneficial way. In this case the patient's role would be transformed from a passive one to that of an active agent or operative subject. This is the strategy BA will follow.

However, this contextual approach largely disappeared when behaviour therapy allied itself with cognitive therapy, giving rise to the well-known cognitive-behavioural concept, which would constitute a second generation of behaviour therapy, from the 1970s onwards. Now, the aim of therapy would be to change not the environment but the mind. Psychological problems would no longer be due to life conditions, but rather to perceptions, information processing, and so on: in sum, there was a shift from a contextual approach to a cognitive one. An example of this *descent* into the cognitive approach would be precisely Beck's Cognitive Therapy for Depression. The point is, however, that much of the success of the cognitive approach would be at the cost of distorting the contextual and idiographic sense of behaviour therapy and adopting in its place a medical, internalist, nomothetic model, largely decontextualized from psychological problems, as though all cases of a condition were equal and its causes consisted in a deficiency or dysfunction of some supposed internal mechanism. Furthermore, the cognitive approach may impede more effective therapeutic applications, given its explanatory rigidity and the standardization of its procedure (Addis & Jacobson, 1996; Kohlenberg, Kanter, Bolling et al., 2002).

As a result of these problems (distortion of contextual sense and limited efficacy), together with improved development of the contextual approach, there emerged during the 1990s a new generation of therapies, already dubbed the third wave or third generation of behaviour therapies (Hayes, 2004; Pérez Álvarez, 2006). Among these new therapies is BA. A characteristic of all of them, beginning with BA, is precisely the recovery of the lost contextual roots. But it is not simply a question of reclaiming lost roots; rather, BA represents an entire contextual philosophy in relation to the understanding of

psychological (psychiatric or mental) disorders and their treatment.

The contextual philosophy situates psychological disorders in the context of personal circumstances and not, for example, in that of some supposed internal, psychiatric and psychological malfunction. The 'symptoms', far from being seen as emanations (outbreaks or signs) of underlying causes, would be seen as dramatic (in various senses) actions that develop in the course of life. These 'symptoms', like all behaviours, have some function, obviously in the context in which they occur. In this sense, 'symptoms' would be both a problem and an attempted solution, albeit unsuccessful. It could be stated, then, that 'symptoms' are failed attempts to solve a life problem. In this perspective, chronification could be seen more as the installation of a person in the 'symptom' than as the 'symptom' installed in a person, whose installation *in* the 'symptom' can be influenced, indeed, by some clinical practices.

This contextual philosophy, in turn, conceives psychological treatment as a task consisting, above all, in helping the person to solve the problems presented. More specifically, psychological therapy would be conceived as behavioural consultancy (Froján, 2004). The role of the therapist is thus defined, and is explained to the client in terms of consultant, counsellor, collaborator or even '(personal) coach', in spite of being within the framework of a clinical-medical context, or perhaps precisely because of that. This role would have to generate the complementary role of client or consulter, more than that of patient or sufferer. In any event, the point is that the 'patient' adopts an active role in relation to his/her problem, rather than waiting for the clinician to provide him or her with the necessary solution (if one exists). It goes without saying that this therapeutic relationship is somewhat paradoxical in the clinical context as it is "formatted" in the image of medical practice. The clinical psychologist, although a clinical professional, would not be a clinician in the medico-psychiatric sense.

BA is a paradigmatic example of this contextual philosophy of clinical practice, consisting in making patients active agents in changing the real conditions on which their problem depends. It would also be relevant in this line to cite Costa and López's (2006) psychological help model, conceived expressly to 'give power for living' in the sense of 'strengthening people', in contrast to the tendency to convert them into patient-consumers of remedies that promote helplessness.

DEPRESSION IN CONTEXT

According to this perspective, depression is not something that one has, as we are often given to understand, as though one had an internal pathogenic condition (a neurochemical imbalance or a deficit in psychological functioning), but rather a situation in which one finds oneself, typically a situation without incentives, at least without the incentives that were previously important. This depressive situation may be due to a range of circumstances, though these are not always easy to identify. For many people, the onset of depression may follow a situation of sudden loss, such as losing one's job, the end of a relationship or the death of a close one; failure to achieve a personal goal; or difficulty in coping with the vicissitudes of everyday life. For others, however, the onset of depression is not easy to associate with any circumstances or events in particular. Even so, this does not mean they do not exist. In the contextual perspective the antecedent conditions can be considered to have been present for a long time – even years – without the individual him/herself realizing it. In any case, it does not follow that it is necessary to assign the aetiology of depression to supposed biochemical conditions; nor do we gain anything by labelling it as endogenous. The attribution of depression to biochemical or endogenous causes is more representative of ignorance of personal conditions than of actual knowledge of causal factors.

The guiding principle of BA is that people are susceptible to depression for a range of circumstances. Thus, depression would be nothing more than a possible form of being-in-the-world, given the circumstances. The fact of anyone having more propensity to depression than another in the 'same circumstances' should be understood in the context of his or her personal history, which is unique, so that one is never really in the 'same circumstances' as another. The invocation of a supposed genetic predisposition is not only made in the absence of causal knowledge, but it diverts attention from knowledge of the contextual causes, which are indeed more plausible and remediable.

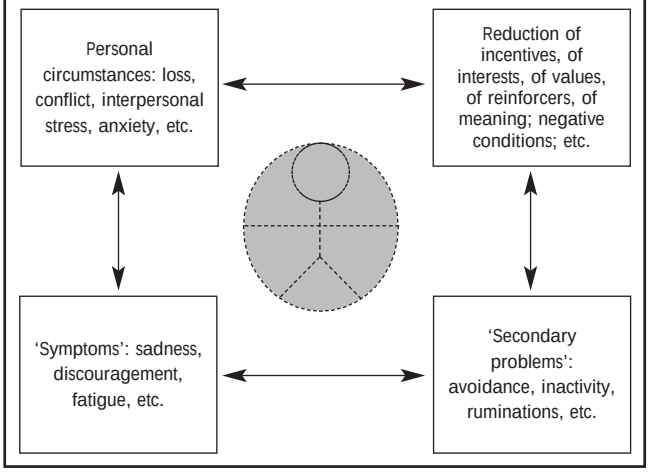
In any case, regardless of the clarity of the circumstances that have brought about the depression, depressed people tend to act in a way that may serve to maintain the depressive condition itself. The actions and reactions characterizing the depressed person play a significant role in depression, rather than being mere symptoms of a condition, as assumed by the current psychopathology (of a nosographic bent). Thus, according to BA, a large part

of the 'symptoms' of depressed people actually work as avoidance, which in effect makes them 'symptoms' that fulfil a function in relation to the environment. Looked at in this way, symptoms could be more appropriately considered as behaviours. Indeed, BA refers to symptoms in terms of 'behavioural avoidance'.

Behavioural avoidance takes a variety of forms, from staying at home, 'withdrawing' from one's normal activities to 'ruminations' or 'depressive modes of interaction' with others. In general, it could be said that 'depression' on the whole is a form of avoidance, even though it is not always obvious that clients' behaviours are avoidance behaviours. The client does what *feels* natural. Only when one analyzes the consequences of the behaviour can one begin to understand its function, in this case, that of avoidance. The decisive aspect is the function, rather than the form. The point is that the avoidance would not only be preventing depressed people from confronting the problems that have caused the current situation and opening up now possibilities for their life, but that it would also be perpetuating the vicious circle of depression.

But behavioural avoidance is actually a 'secondary problem' derived from the initial depressogenic circumstances, which do play a fundamental role in the depressive situation. Thus, BA is concerned both with the events that occur in a person's life, in this case the circumstances that bring about the depression, and with the responses to such events, in this case, behavioural avoidance. BA represents the depressive situation as interaction between diverse aspects of the context, as shown in Figure 1.

FIGURE 1
CONTEXTUAL MODEL OF DEPRESIÓN



Life events, then, may be associated with a reduction in positive reinforcement or life incentives, which may lead to 'secondary problems' of avoidance and to diverse 'depressive symptoms'. Note that the 'symptoms', often considered as the 'depression' itself, are no more than an aspect of an entire situation that ends up engulfing the person.

APPLICATION OF BA

For the application of BA, the contextual philosophy is more important than the techniques. In fact, the techniques are fairly common ones, though those applying them do require some degree of skill and should have a clear idea of the direction they are taking (Martell et al., 2001, p. 59). Below, we shall first of all consider some principles the therapist should bear in mind throughout the therapy. This will be followed by a consideration of some of the foundations underpinning the therapeutic application, and finally, by an explanation of the procedure (Hopko et al., 2003; Jacobson, Martell & Dimidjian, 2001; Martell et al., 2001).

Principles to bear in mind throughout the therapy

1) *People are susceptible to depression for a variety of reasons*. The reference to 'susceptibility' suggests that depression is understood more as a possibility within human beings than as a deficit or dysfunction in relation to some supposed neuro-psychological mechanism. As regards the reference to a 'variety of reasons', it concerns life circumstances; these may not always be easy to identify, but this should not lead to the conclusion that depression has endogenous causes. In this context, it would be more appropriate to say that depression had life-related *reasons* than that it had biological *causes*.
2) *Behaviours for coping with the depressive situation play a decisive role in depression*. This refers to the fact that behaviours characteristic of depressed people exacerbate depression, prevent them from changing things by dealing adequately with life problems, and sustain a passive attitude that leads to a vicious circle. These 'depressive' behaviours would include feelings of sadness, pessimistic thoughts, reduction of activities, passive attitude, and so on. For BA, these behaviours, far from being mere symptoms of depression, constitute and contribute to the depressive condition. In particular, BA highlights the

avoidance role fulfilled by such symptoms or behaviours – the behavioural avoidance previously referred to.

3) *BA does not consist simply in increasing pleasant activities*. It is not a question of simply doing things for the sake of it (in hypomaniac fashion), nor of filling up time to keep oneself occupied, but rather of doing something functional, which makes practical sense for the person. The idea is that the consultant ends up becoming an expert in observing the relationships between the actions and consequences in everyday life, particularly the consequences related to the client's mood.
4) *Clients should be aware of the situation they are in and the consequences of behaviours on their mood*. BA teaches clients to observe what they do or fail to do so as to see why they feel the way they feel. It is a priority of BA to link what is happening to the person and their life circumstances.

Foundations underpinning the therapeutic application

a) *The main focus of the therapy are the client's behaviours and the context in which they occur*. The crucial question for the therapist is 'what circumstances are involved in how the client feels and responds to them so as to maintain the feeling' – of sadness, discouragement or whatever.
b) *The therapy tries to teach clients to be active, in spite of their emotional states*. The aim is for clients to act in accordance with objectives that will benefit them rather than in accordance with how they feel.
c) *The therapy needs to identify response patterns that could be maintaining the depression*. This involves analyzing, by means of daily records or other data, the client's characteristic patterns in everyday life.
d) *The therapy teaches clients to make functional analyses of their own behaviours, identifying their antecedents and consequences*. It represents, in general, a new perspective about oneself, consisting in understanding one's own behaviour in relation to the context, rather than being content with internal explanations referring to feelings or thoughts. It is not a question of invalidating or disputing the explanations given by clients in terms of internal causes, such as when they attribute their behaviour to 'low self-esteem', but rather of relating such 'causes' to manageable conditions of the context. Thus, with regard to 'low self-esteem', the therapist would not question this concept, but would rather say something like, 'Well, people understand different things by this term, and I'd like to know what it means for you. Could you tell me what sort of things are happening when you feel you have low self-esteem? Are there times when your self-esteem is high?' Once the internal explanations, which appeared self-sufficient, are related to the conditions on which they actually depend, it is possible to 'activate' the person in a way in which he or she can now create, change and improve his/her situation, including the 'self-esteem' component.

PROCEDURE

Presentation of the procedure of BA has to begin with a consideration of four objectives: behavioural avoidance, therapeutic context, disruption of routines and passive coping.

Behavioural avoidance. As already suggested, behavioural avoidance constitutes, as far as BA is concerned, the fundamental problem of depression. Given the circumstances through which one has *entered* into a depression, a secondary problem – in terms of time –, that of behavioural avoidance, emerges as the essential problem of the depressive situation. According to BA, depression itself is a form of avoidance. The avoidance we are talking about here is not a question of intentionality (as in saying that the client spends the day in bed to avoid going to work), but rather of functionality, insofar as the action in question does nothing to resolve the situation. A functional, pragmatic criterion is what prevails in BA. More specifically, behavioural avoidance maintains one out of contact with the conditions on which can depend an improvement, at the same time as potentially condemning one to a self-reflective vicious circle.

Therapeutic context. For BA, as for other psychotherapies, the context of the therapeutic relationship is highly important. But BA not only requires an empirical collaboration like CT, in this case to put behavioural activation into practice in the extra-clinical context, but takes the therapeutic relationship itself as the actual therapeutic context, being akin in this respect to functional analytical psychotherapy (Kohlenberg et al., 1999). Thus, it is a requirement of the BA therapist to consider the function of the client's verbalizations as much as or even more so than their content. For example, the client's expression 'I feel lonely' may have the function of a 'mand', in Skinnerian terminology, which indeed

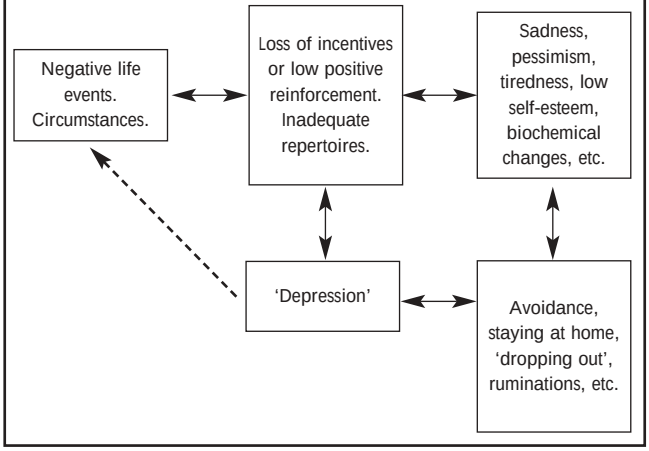
demands certain a social attention; it can have the function of 'magic mand' in Skinner's definition (1957/1981, p. 62), without this 'demanding' a particular response; or, finally, it can have the function of avoiding the subject that was being talked about. In general, it is better to stimulate conversations about practical activities than to encourage conversations about repeated complaints in relation to the client's life.

Disruption of routines. Disruption of the routines that constitute the functioning of everyday life tends to precede a depressive episode. Although such disruption is particularly recognized in bipolar depression, it is also important in other forms of depression. In any case, BA attempts to re-establish the interrupted routines or to establish others capable of stabilizing the client's everyday life pattern.

Passive coping. Given that passive coping is the accomplice of the depressive situation, BA proposes from the outset an active role for its clients. Instead of assigning to depressed people the role of passive patients, waiting to get well in order to act, BA proposes that they act in order to get well.

BA is an idiographic treatment, so that it does not follow a protocolized session-by-session procedure. In any case, its logic permits a structured application which is nevertheless flexible. Duration of the treatment is 20-24 sessions, even though there are briefer versions of the order of 6-12 sessions (Lejuez, Hopko & Hopko, 2001), and even self-application formats (Addis & Martell, 2004). The course of the treatment moves through a series of stages. It begins, like other psychotherapies, with the establishment of a collaborative therapeutic relationship,

FIGURE 2
MODEL OF DEPRESSION PRESENTED TO THE CLIENT



though the BA approach seeks to maintain a balance between attention to the client's preoccupations and adherence to the treatment objectives and techniques. In this line, the therapist demonstrates an understanding of the client's situation and asks questions that can lead to greater specification of the behavioural patterns that have become problematic. Given this context, the therapist shows the client how to analyze the depression in contextual terms, presenting a model of depression, often through the use of diagrams. The model of depression presented to the client situates on a diagram the different aspects of the depressive situation (Figure 2).

One of these aspects is given by the life conditions antecedent to the depression. These antecedent conditions may consist in easily identifiable current or recent negative events or in predisposing biographical circumstances. Another aspect is the loss of incentive of things that were previously of interest and value – in technical terms, the low level of positive reinforcement. This aspect also includes the inadequacy of the behavioural repertoires necessary for maintaining or attaining worthwhile or valued goals. Another aspect distinguished is the 'depressive feeling' (sadness, low self-esteem, etc.) resulting from the previous aspects. We might include here possible neurochemical changes concomitant to the depressive state. Note that this aspect, often considered as the depression itself, is situated in the model as a sub-effect of the depressive situation and not, for example, as a self-defining cause or entity. A fourth aspect identified is the behavioural avoidance pattern, consisting in withdrawal from one's normal activities, involvement in other activities which only lead to the avoidance of situations, 'dropping out' in various senses, 'rumination', turning thoughts over and over with no resolution, and so on. Despite this aspect being, as stressed above, a 'secondary problem' of the depressive condition, it nevertheless plays a decisive role in the development and maintenance of the depression. The model also considers a fifth aspect called 'depression', perhaps so that the idea of depression becomes *situated* in the model, though this 'depression' is no more than one aspect within the circuit constituting the depressive situation. The reader will recall that depression would be a *situation* in which one finds oneself, and not a *thing* one has inside oneself.

The intention of the model is to provide an understanding of the circuit that comes to constitute the depression and to make the client see how to escape from

it. It is a question of understanding the 'trap' of depression and getting back on 'track' through 'action'. BA indeed uses these three words as acronyms: TRAP, TRAC(K) and ACTION, in order to transmit the essential idea of the underlying functional analysis.

TRAP stands for:

Trigger, to refer to negative antecedent events;

Response, to refer in this case to how one feels (e.g., 'depressed');

Avoidance-**P**attern, 'avoidance pattern', to refer to the pattern of avoidance one adopts ('staying at home', etc.).

It is understood that the *avoidance pattern* maintains the *response* of feeling depressed and impedes one from dealing with the *events* that *triggered* it (Figure 3). In order to get out of this trap, BA proposes an alternative path or 'track', TRAC.

TRAC stands for:

Trigger, as in TRAP;

Response, as in TRAP;

Alternative **C**oping, to refer to a new pattern of action that breaks the established avoidance pattern.

It is understood that the *alternative coping* blocks the avoidance pattern, interrupts the circuit that reinforces the depressive response and opens up the possibility of modifying the 'depressogenic' situation (Figure 3).

For its part, ACTION is another acronym that can be useful for some clients with a view to establishing new routines.

ACTION stands for:

Assess, in this case asking oneself whether what one does might not actually be maintaining the problem;

Choose, taking the decision to continue avoiding or to act in a resolutive way;

Try, the actions chosen;

Integrate, the new activities into one's daily routines;

Observe, the result, asking oneself if one feels better or worse after this activity and if it is in the direction of one's long-term goal.

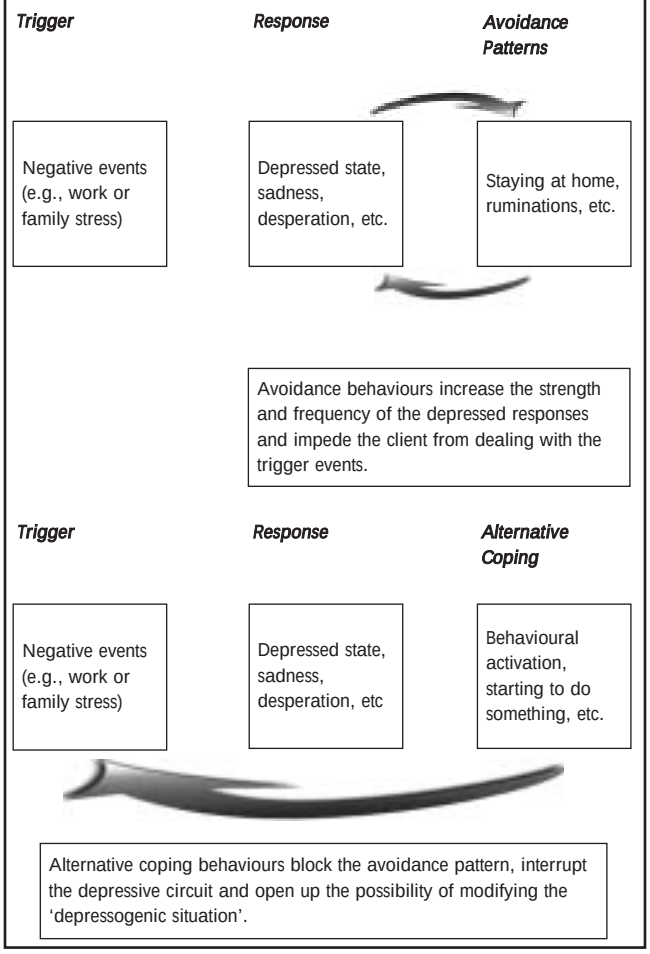
Never give up, keep on trying.

On the assumption that what is most important is the contextual philosophy, BA boasts a range of other techniques, in addition to the functional analysis through the TRAP, TRAC and ACTION schemas. Among them, perhaps the most important is the continuous monitoring of activity, by any means (systematic records, diaries, narratives, etc.), so that clients can relate what they *feel* with what they *do* and what is *happening in their environment*.

In a similar line, continuous assessment may take place through, for example, an inventory such as that of Beck. Likewise, BA may involve a rating of the 'mastery and pleasure' of activities, always with the aim of providing opportunities for bringing into play actions that might possibly be reinforced by the contingencies of the natural social environment. Other common techniques are:

- assignment of graded tasks,
- verbal rehearsal of the tasks proposed,
- management of situational contingencies,
- rehearsal of behaviour,
- shaping of activation strategies by the therapist,
- training for overcoming social skills or other deficits,
- relationships therapy,
- 'attention to the experience' or *mindfulness*,
- acceptance, etc.

FIGURE 3
THE 'TRAP' OF DEPRESSION AND THE ALTERNATIVE 'TRACK'



The therapy also considers techniques that may involve temporary relief, such as distraction, restricted contact, avoidance, or medication, with a view to improving the conditions in which one will deal with the situations that eventually have to be faced.

Of all the techniques used in BA, of the most noteworthy is 'goal-directed action' (Martell et al., 2001, pp. 116-119), a revised version of George Kelly's 'fixed-role therapy' and Alfred Adler's 'acting as-if' (Pérez Álvarez, 1996, p. 154). Clients are instructed to behave in accordance with a self-proposed goal or in a way consistent with how they would like to feel or be perceived by others – for example, as though they had 'high self-esteem'. The new role is designed and trained and it is proposed to the client that they act *as-if*, in this case, they had 'high self-esteem'. BA uses this technique of acting in accordance with a goal more than with a feeling, so as to demonstrate to clients that their behaviour can have an effect on how they feel and how others interact with them. After all, depressive behaviour contributes to a person's depressed feelings and creates a depressing atmosphere, which extends to others' interaction with that person. Beyond this justification, moreover, behaving *as-if* corresponds to a 'Quixotic principle' or 'Quixote effect' according to which feigning and pretending a (temporary) way of being can actually forge a full-blown and more permanent way of being, way of life or character (Pérez Álvarez, 2005; Pérez Álvarez & García Montes, 2004). This can work both for good and for ill: for good insofar as behaving *as-if* makes one capable of overcoming insecurity, and for ill insofar as such as *as-if* can lead to a neurotic character or style, as Adler would put it. Thus, for example, if one has to 'feigning' and 'pretending' that one is more depressed than one actually is to obtain a 'sicknote' and 'justify' it to others, one may end up actually 'forging' a depression, including the social environment generated.

EMPIRICAL EVIDENCE

The first empirical evidence on BA comes from the study of the breakdown of the CT components in which, the reader will recall, the 'behavioural activation' component showed an efficacy equivalent to that of the complete therapy (Jacobson et al., 1996). It should be borne in mind that CT is of proven efficacy, and is in fact currently the psychological therapy of reference for others (Pérez Álvarez & García Montes, 2003).

Following that research, BA as a therapy in its own right was tested in various studies. Thus, a study with hospital inpatients with major depression showed that BA applied in a brief format over two weeks with three 20-minute sessions per week was significantly more effective than supportive psychotherapy (Hopko, Lejuez, LePage, Hopko & McNeil, 2003). BA has also been tested in group format with major depression in a public mental health context, showing its efficacy in a waitlist-group design (Porter, Spates & Smitham, 2004). Another study showed BA to be effective both in patients who are taking antidepressant medication and those who are not, in an application of between 6 and 10 sessions (Cullen, Spates, Pagoto & Doran, 2006). There are also case studies on BA applied to depression with additional complications, and which again show its efficacy (Hopko, Bell, Armento, Hunt & Lejuez, 2005; Hopko, Lejuez & Hopko, 2004; Hopko, Robertson & Lejuez, 2006; Hopko, Sánchez, Hopko, Dvir & Lejuez, 2003; Lejuez, Hopko, LePage, Hopko & McNeil, 2001; Mulick & Naugle, 2004; Ruggiero, Morris, Hopko & Lejuez, 2005).

However, the most important study providing evidence in favour of BA, and probably the most rigorous of those carried out up to now in the field of depression, is that already cited, by Dimidjian et al. (2006). This study compared BA with CT and with antidepressant medication in a randomized design with control-placebo groups in 241 adult patients with major depression. Although all the treatments were effective with less severe depression, BA was superior to CT with more severe depression, equalling the efficacy of medication. Moreover, BA showed a lower drop-out rate than medication. This means that 'patients', here considered as active agents, are more committed to BA than to medication, despite the latter apparently being a more convenient form of treatment. If in addition to this we consider the side effects that tend to be associated with medication and the relapses that tend to occur when patients come off it, all things considered BA emerges as the best treatment option.

In sum, the empirical evidence shows that BA is a psychological treatment of proven effectiveness for depression. All the indications are that it is more effective than CT itself and just as effective as medication, currently the therapy of reference against which other therapies are tested. The empirical evidence also shows BA to be an efficient treatment in cost-benefit terms. For a start, BA is more parsimonious than CT; by comparison with medication, fewer people appear to give up BA, so that

reaches more clients, not to mention the data in relation to relapses and side effects; furthermore, BA has also shown its efficacy in brief formats, of the order of 6-10 sessions, and is suitable for group application to 6-10 participants. It will be recalled that its efficacy has been proven in a variety of contexts, including that of public mental health services. There is also preliminary evidence from case studies suggesting the efficacy of BA for other conditions, such as post-traumatic stress disorder (Mulick et al., 2005; Mulick & Naugle, 2004), anxiety disorder (Hopko et al., 2004; Hopko et al., 2006) and borderline personality disorder (Hopko et. al., 2003).

It should be stressed that this efficacy shown by BA was measured using instruments associated with CT and medication, the typical scales of Beck and Hamilton. Nevertheless, BA also has its own scale (Kanter, Mulick, Bush, Berlin & Martell, 2007). It is assumed that the efficacy of a depression therapy should be measured not only in negative terms of *reduction of symptoms*, but also in positive terms of *personal improvements* (environmental changes, life orientation, clarification of values, carrying out of activities, achievement of objectives, and so on).

TOWARDS THE DEMEDICALIZATION OF DEPRESSION

In the year 2000, Jacobson and Gortner wondered whether the 21st century might see the demedicalization of depression (Jacobson & Gortner, 2000). The answer depended on a study in which BA was tested in relation to CT and antidepressant medication, according to a challenging methodological design. Thus, for example, CT would be applied by a *Dream Team* of cognitive therapists, so that there could be no suggestion of a lack of commitment to the therapy. Likewise, the medication would be applied with all the necessary psychopharmacological rigour. For its part, the contextual character of BA would be maximized. The study in question is none other than that already cited, by Dimidjian et al. (2006).

In the light of the data, the reply would be that depression can indeed be demedicalized. What does this mean in the current state of affairs? First of all, the reopening of an alternative to the deficit models of depression that dominate clinical discourse, be it in terms of brain chemistry (typically, 'serotonin imbalances') or of psychological mechanisms (typically, 'cognitive schemas'). These deficit models represent the triumph of the illness model among mental health professionals, a model that was once contested by clinical psychologists but is now embraced by the majority of them, insofar as CT is the psychological treatment of reference. Indeed, the illness model of depression is incorporated in clinical conventions even by those who advocate psychological treatment.

The alternative would be a contextual model which, as we have seen, begins by helping clients to understand the problem presented in relation to their personal circumstances and to what they do in response to them (rather than as something that 'happens' or is 'faulty' inside them). Given the current climate, it is especially relevant to resituate the 'patient' with respect to his or her own problem, since it is common for people to conceive themselves precisely as patients suffering from the supposed illness of depression – a notion propagated in popular clinical culture and promoted in professional practice. Since this conception is derived not from scientific findings but from cultural tendencies largely promoted by the pharmaceutical industry, it is open to question, and, as proposed here, to replacement by one in which people would take the initiative for solving their own problems as active agents seeking help in accordance with the nature of those problems – which would be the type of help provided by BA. For a discussion of the contextual perspective in clinical practice, see, for example, Costa and López (2006) or González Pardo and Pérez Álvarez (in press).

At the very least, patients/clients should be informed of these therapeutic findings, which suggest an alternative to medication and to the consideration of their problem as an illness. It goes without saying that this notion does not in any way belittle depression or ignore the suffering it involves. What it does is situate depression in the context of life problems and give back to the patient the role of agent expropriated by the illness conception.

Clinical professionals should also be informed of how, moreover, it is their duty to take note of findings such as these, coming out of duly controlled and published studies. If the 'ongoing training' of clinicians were to include – as its merits demand – the contextual alternative, the demedicalization of depression would be possible, since its current medicalization is more than anything an institutional question. 'How institutions think' determines whether things develop in one way or in another. In any event, change in clinical conventions is not only a question of 'ongoing training', but rather, and above all, of 'initial training', of the way professionals are educated before they begin their careers in the field. If the

clinicians of the future do not know how to conceive of people's problems other than in terms of molecules or minds, apart from the fact of their ignorance of other approaches, they may well be subject to a sort of 'Charcot effect', whereby they will find in patients what they themselves prescribe (Pérez Álvarez & García Montes, in press). It is even easier for those who think in terms of molecules to be subject to this effect, since patients tend to be formatted through the same concepts, notions and marketing as those which influence the training and education of the professional themselves.

Finally, a health system that is not content with mere statistics, that is concerned with the ever-rising cost of antidepressants (which, the reader will recall, has tripled in 10 years), and that is also interested in offering the most effective and efficient solutions for its users, should consider the contextual alternative represented by BA. It is a case not only of acknowledging, as we have seen, the better alternative represented by psychological treatments for depression (Pérez Alvarez & García Montes, 2003) – an alternative also recognized, indeed, by the London School of Economics (LSE, 2006; see also InfoCop, 2006), which recommended the British National Health System to take on five thousand clinical psychologists over the next seven years – but also of highlighting within the psychological treatments the most efficacious and efficient alternative, which would appear to be BA, and which the US National Institute of Mental Health has already begun to consider at least as a simpler form of CT (NIMH, 2005, p. 92).

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EFFECTIVENESS OF MODERN ANTIPSYCHOTIC DRUGS FOR THE TREATMENT OF SCHIZOPHRENIA AND OTHER PSYCHOTIC DISORDERS: THERAPEUTIC PROGRESS OR MORE OF THE SAME?

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Antipsychotic or neuroleptic drugs are the most effective known medications for the treatment of psychotic symptoms in schizophrenia and related mental disorders. Despite progress in pharmacological therapy for schizophrenia over the last twenty years, quality of life in most patients diagnosed with schizophrenia remains below normal levels. Recent clinical trials not sponsored by the pharmaceuticals industry on the effectiveness and cost-utility of different classes of antipsychotics indicate that there are no substantial differences between modern second-generation or atypical antipsychotics and older, conventional ones with regard to discontinuation rates, efficacy or quality of life. These results reflect our lack of knowledge on the physiopathology of schizophrenia, but also serve to stimulate research on new pharmacological targets, psychological treatments, and alternative psychosocial interventions.
Key Words: *Antipsychotic drugs, Schizophrenia, Effectiveness*

Los antipsicóticos o neurolépticos son los fármacos con la mayor eficacia conocida para tratar los síntomas psicóticos en la esquizofrenia y otros trastornos mentales relacionados. A pesar de los avances en la terapia farmacológica de la esquizofrenia durante las dos últimas décadas, la calidad de vida en la gran mayoría de pacientes con diagnóstico de esquizofrenia crónica se mantiene por debajo de la normalidad. Recientes ensayos clínicos no subvencionados por empresas farmacéuticas sobre la efectividad y la relación coste-beneficio de las distintas clases de fármacos antipsicóticos disponibles para el tratamiento de la esquizofrenia, indican que no existen grandes diferencias entre los modernos antipsicóticos atípicos o de segunda generación y los convencionales en cuanto a eficacia, tasa de abandono o calidad de vida. Estos resultados evidencian nuestro desconocimiento sobre la fisiopatología de la esquizofrenia, pero también estimulan la investigación de nuevas dianas farmacológicas, tratamientos psicológicos e intervenciones psicosociales alternativas.
Palabras clave: *Antipsicóticos, Esquizofrenia, Efectividad*

The clinical introduction in 1952 of the first neuroleptic drugs, such as chlorpromazine, for the treatment of manic agitation and schizophrenia, is traditionally considered to represent a crucial advance in the field of psychiatry. Despite the fact that the progressive decrease in the number of patients admitted to mental institutions is commonly attributed to the introduction of these drugs – mainly in the USA –, it was in fact a range of social, political and economic factors unrelated to the efficacy of neuroleptics that triggered the well-known phenomenon of "psychiatric deinstitutionalization" (González Pardo & Pérez Álvarez, 2007). Nevertheless, it is beyond doubt that neuroleptic drugs represented and continue to represent a significant therapeutic advance in the treatment of schizophrenic symptoms. The first neuroleptics were actually discovered by a kind of serendipity, via research and experience with antihistaminic drugs for the treatment of allergic reactions and the prevention of physiological stress reactions during major surgery (Healy, 2002).

The term neuroleptic, literally "that seizes the nerves", was coined by the French psychiatrists Delay and Deniker, to whom is attributed the introduction of chlorpromazine for the treatment of schizophrenia. Though now in disuse, this term reflects perfectly the neurological and psychic effect of these drugs, which cause a general reduction of spontaneous movements and a state of emotional indifference to environmental stimuli. This neuroleptic effect is commonly considered as therapeutic above all in agitated or aggressive patients, many of whom tend to present psychotic symptoms. The therapeutic potential of neuroleptics is evident in the treatment of the so-called

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positive symptoms of schizophrenia, since they tend to attenuate the psychic impact of delusions, auditory hallucinations, agitation and anxiety. Long-term treatment with antipsychotics in patients diagnosed with schizophrenia has also been seen to lead to improvement in other symptoms, such as disorganized thinking or inappropriate behaviour, and to a decrease in relapses in the form of psychotic episodes. Thus, there is currently a tendency to refer to these drugs as 'antipsychotics', since they reduce these psychotic symptoms without totally eliminating them. Even so, other, more devastating and lasting symptoms of schizophrenia, such as the reduction of emotivity, social isolation, lack of initiative or motivation, anhedonia, language deficiencies (the so-called negative symptoms), or cognitive and mood disorders, do not appreciably improve – or indeed even worsen – as a result of chronic treatment with antipsychotics (Miyamoto, Duncan, Marx & Lieberman, 2005).

Although estimates of the clinical efficacy of classic or conventional antipsychotics vary widely depending on the clinical criterion employed, in general it is estimated that just a third of schizophrenic patients respond favourably to these drugs, achieving both social and employment integration; another third respond partially, improving their symptoms but suffering relapses that sometimes require their hospitalization and in need of social assistance (Lewander, 1992); finally, the remaining third do not respond at all, or only minimally, to antipsychotics (Meyer & Quenzer, 2005; Kane, 1996). For example, some meta-analyses show a relapse rate of 55% in schizophrenic patients who receive a placebo, while the rate falls to 21% in those treated chronically with antipsychotics, indicating a net efficacy of antipsychotics of 34% against placebo from this perspective (Davis et al., 1993). Despite their limited efficacy, however, multiple studies have shown chlorpromazine and other classic neuroleptics to be more effective than placebo or psychotherapy alone in the treatment and prophylaxis of psychotic episodes in patients with schizophrenia (Davis et al., 1993; May et al., 1981; Prien & Cole, 1968).

Unfortunately, the discontinuation rate for neuroleptic treatment is very high, due not only to the fact that it is only moderately effective for the treatment of psychoses, but also, and indeed mainly, to the high incidence of adverse side-effects (van Putten, 1974). Notable among many other such effects are those known as extrapyramidal symptoms (EPS), observed in almost 75% of patients with schizophrenia receiving long-term treatment with antipsychotics, in the form of movement disorders such as tardive dyskinesia, dystonia or akinesia/Parkinsonian bradykinesia, as well as akathisia, a subjective sensation of motor restlessness.

ATYPICAL ANTIPSYCHOTICS

At the end of the 1980s, the pharmacological treatment of schizophrenia appeared to take a new turn with the reintroduction of clozapine in Europe for treating schizophrenia resistant to conventional neuroleptics. Diverse randomized clinical trials succeeded in demonstrating that clozapine had unique pharmacological characteristics, in that it was more effective for the treatment of resistant schizophrenia and had fewer EPSs (Kurz, Hummer, Oberbauer & Fleischhacker, 1995; Kane, Honigfeld, Singer & Meltzer, 1988). However, clozapine is associated with the risk of potentially fatal agranulocytosis, sedation, hypotension and weight gain. Therefore, diverse antipsychotic drugs have been developed in attempts to imitate the pharmacological and therapeutic properties of clozapine, agents generally referred to as second-generation or "atypical" antipsychotics: risperidone, quetiapine, olanzapine, amisulpride, ziprasidone, and so on.

There is currently no consensus among specialists on the criterion of atypicality, with respect to conventional neuroleptics or antipsychotics. For some, atypicality would be based on their distinctive pharmacological properties, given that they tend to be antagonists (with a blocking effect) of not only dopamine receptors (especially type D2), but also of different serotonin receptors, with even greater affinity (type 5HT-2). However, this criterion is not met, for example, by amisulpride, since it does not have such affinity for serotonin, but rather for different dopamine receptors (types D2 and D3). For others, though, atypicality would be based on the lower tendency of these drugs to cause EPSs, compared to conventional neuroleptics such as haloperidol (like chlorpromazine, a prototypical high-potency neuroleptic). With the possible exception of clozapine, these EPSs appear only as a result of moderately high therapeutic doses of risperidone or other atypical antipsychotics. Finally, other specialists highlight the supposed greater efficacy of the atypical agents for

treating the negative symptoms of schizophrenia, by comparison with conventional neuroleptics (Davis, Chen & Glick, 2003). In any case, the lower risk of EPSs with atypical antipsychotics has greatly popularized their use as first-choice therapeutic agents for the treatment of schizophrenia and other psychotic disorders in clinical practice, so that, despite their high cost, they have largely supplanted conventional antipsychotics.

Due in part to the enormous cost to health systems, the issue of the efficacy of atypical antipsychotics has given rise to extensive debate, especially amid revelations of new adverse effects, such as obesity, hyperlipidemia, diabetes, resistance to the action of insulin and hypercholesterolemia (a set of symptoms known as "metabolic syndrome"), and a greater associated risk of cardiovascular or cerebrovascular disorders in general (Lieberman, 2004). Furthermore, the supposed greater therapeutic efficacy of atypical antipsychotics in general for the treatment of schizophrenia, as against conventional neuroleptics, has been called into question by various meta-analyses and systematic reviews over a number of years (Bagnall et al., 2003; Leucht, Wahlbeck, Hamann & Kissling, 2003; Geddes, Freemantle, Harrison & Bebbington, 2000). It would seem that the majority of studies comparing therapeutic efficacy and tolerance for atypical and conventional antipsychotics produced highly inconsistent and even contradictory results, depending on the type of conventional antipsychotic of reference – which is usually haloperidol, a potent neuroleptic with high risk of EPSs – and the dose, which tends to be very high.

EFFECTIVENESS VERSUS EFFICACY

If the above is true, how are we to explain the generally accepted view that atypical or second-generation antipsychotics are more effective for treating not only the negative symptoms of schizophrenia, but also the associated mood and cognitive disorders, though not for improving quality of life? Recently, various researchers and clinical professionals have offered a possible solution to this paradox on employing measures of effectiveness, rather than simply of efficacy, for establishing the true therapeutic value of antipsychotics. Effectiveness refers to a drug's efficacy in conditions of regular use and in non-selected patients with a certain disorder or illness. However, in randomized clinical trials (RCT), which are the most widely used experimental procedures for determining the efficacy and safety of pharmacological or therapeutic treatments in human beings, effectiveness is not taken into account. In contrast to effectiveness (or "efficacy in the real world"), efficacy in RCTs is established at best in highly limited samples of no more than a thousand patients studiously selected so as to present a minimum of associated pathologies, with well-defined or prototypical clinical conditions, and who are, moreover, assessed in a short-term context in controlled environments such as hospitals or clinics. Therefore, it is reasonable to suppose that the results in effectiveness will be inferior to those of therapeutic efficacy, given the large number of factors that negatively affect the efficacy of drugs in real life.

UNEXPECTED RESULTS OF THE LATEST STUDIES ON THE EFFECTIVENESS OF ANTIPSYCHOTICS

In late 2006, the initial results were published of two large-scale multicentre studies analyzing for the first time the effectiveness of antipsychotics in the treatment of schizophrenia, and which, exceptionally, were not funded by pharmaceutical companies, but rather from public sources (Lieberman, 2006). These were the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE), carried out under the auspices of the US National Institute of Mental Health, and the Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study (CUtLASS 1).

Table 1 provides a summary of the characteristics of the experimental design of the two studies. The CATIE trials showed originality in their attempts to establish the common conditions of use and prescription of antipsychotics, and were subdivided in three consecutive phases. The first had a randomized double-blind design as regards the assignment of treatments, in which patients with schizophrenia were assigned to treatment with either a conventional or first-generation antipsychotic (perphenazine) or a second-generation drug (olanzapine, quetiapine, risperidone or ziprasidone). Patients who discontinued the treatment in the first phase were allowed to participate in a study comparing clozapine with other atypical antipsychotics – the so-called efficacy pathway – or in another study comparing atypical antipsychotics other than clozapine with one another – the so-called tolerability pathway. This study has the additional peculiarity that the principal variable of

analysis is the discontinuation rate, which was used a general index of treatment effectiveness. Through a series of questionnaires, the discontinuation rate could be associated with lack of therapeutic efficacy, or with intolerance to side-effects.

In contradiction of the authors' initial hypothesis, the results of these first two phases of the CATIE trials (Table 2) showed high discontinuation rates in general for all types of antipsychotics, with large individual variations. Moreover, no great differences were appreciated with regard to the effectiveness of any of the antipsychotics utilized. Thus, although olanzapine was slightly more efficacious than the rest of the antipsychotics (except clozapine), it had a high discontinuation rate due to its adverse side-effects, such as weight gain and other endocrine disorders (Nasrallah, 2006; McEvoy et al., 2006; Lieberman et al., 2005). Atypical antipsychotics such as clozapine confirm their greater efficacy only in those patients who show resistance to treatment with other antipsychotics.

Furthermore, all the antipsychotic drugs produced a modest improvement in psychosocial function measured with quality of life scales, with no significant differences between first and second-generation antipsychotics (Swartz et al., 2007). Phase 3 of CATIE is currently under way. This final phase includes patients who dropped out of Phase 2, who will be treated in an open design with one or two of the conventional and atypical antipsychotics

TABLE 1
EXPERIMENTAL DESIGN OF THE FIRST TRIALS ON THE EFFECTIVENESS OF ANTIPSYCHOTICS

	CATIE USA	CUtLASS 1 United Kingdom
Country		
Public sponsor	*National Institute of Mental Health*	*National Health Service*
Primary clinical variable	Discontinuation of the assessed	Quality of life medication
Diagnosis	100% schizophrenia	75% schizophrenia, 25% other psychoses
Duration	18 months	12 months
Number of subjects	1460	227
Masking procedure	Double-blind	Open for patients and doctors, but blind for evaluators
Nº of participating institutions	57	14
Inclusion of patients with first psychotic episode	No	Yes (13%)
Antipsychotics utilized	4 SGA, 1 FGA (20% subjects, perphenazine)	4 SGA, 15 FGA (50% subjects)
Percentage of patients with previous antipsychotics treatment	74%	99%
Mean duration of the disorder	16 years	14 years

Based on Constantine and Tandon (2007).
CATIE: *Clinical Antipsychotic Trials of Intervention Effectiveness*
CUtLASS: *Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study*
SGA: Second-generation or atypical antipsychotic
FGA: First-generation or conventional antipsychotic

TABLE 2
SUMMARY OF PRINCIPAL RESULTS OBTAINED IN THE *CATIE* TRIALS

- ✔ After Phase I, a high percentage of patients discontinued the medication (74%) due to their own decision to abandon it (24%), due to lack of efficacy (24%), due to intolerance to adverse side-effects (15%) and for other reasons (6%).
- ✔ Highest percentage gives up olanzapine (19%), followed by perphenazine (16%), quetiapine and ziprasidone (15% each) and risperidone (10%).
- ✔ Reasons for discontinuation: metabolic syndrome-weight gain (olanzapine), EPSs (perphenazine).
- ✔ Mean time to discontinuation: maximum in olanzapine (9.2 months) as compared to the other drugs (between 3.5 and 5.6 months).
- ✔ Duration of successful treatment: greater in olanzapine (3 months) than the rest (0.5 to 1.5 months).
- ✔ Phase II, greater efficacy with clozapine (56% discontinue), as against olanzapine (72%), risperidone (86%) and quetiapine (93%).
- ✔ Phase II, similar tolerance, though better in risperidone (64% discontinue) than in olanzapine (67%), ziprasidone (77%) and quetiapine (84%).

TABLE 3
SUMMARY OF RESULTS OBTAINED IN THE *CUTLASS 1* TRIALS

Branch I

- ✔ 1-year study comparing the cost-utility relationship in FGAs and SGAs for the treatment of schizophrenia.
- ✔ FGA and SGA equal in general effectiveness and quality of life, with no differences in relation to side-effects.

Branch II

- ✔ 1-year study comparing clozapine with other SGAs in the treatment of treatment-resistant schizophrenia.
- ✔ Clozapine significantly more effective than other SGAs ($P<0.02$), but not in relation to improvement of quality of life ($P = 0.08$).

employed (including the newcomer aripiprazole). It is to be expected that, in accordance with meta-analyses in the field, the "third-generation" aripiprazole will not bring advantages with regard to tolerability or efficacy compared to the other classic or atypical antipsychotics (El-Sayeh & Morganti, 2006).

The second recent cost-effectiveness study (CUtLASS 1), carried out in the United Kingdom, confirms the results of the CATIE trials from the US (Table 3). Once again in contradiction of the researchers' initial hypothesis, as far as effectiveness and quality of life are concerned, the atypical or second-generation antipsychotics are similar to the classic neuroleptics (Jones et al., 2006). This study was quite exhaustive with regard to the assessment of effectiveness, rated on six different scales completed by the patient or evaluator, together with a quality of life scale. Not even clozapine was significantly better than the rest of the atypical antipsychotics in terms of quality of life, though it did stand out in its general efficacy for reducing psychotic symptoms. The results of these two clinical trials and of previous meta-analyses indicate that the difference in efficacy and tolerability between different classes of antipsychotics has been exaggerated, and they do not provide justification on cost-benefit grounds for the prescription of atypical antipsychotics as first-choice drug in the treatment of schizophrenia.

Furthermore, other results from CATIE and recent meta-analyses advise against the use of atypical antipsychotics for the treatment of the psychotic symptoms or agitation associated with dementias such as Alzheimer's disease, due to their lack of efficacy and the risk of death from cardiovascular disorders (Ballard & Waite, 2007; Schneider et al., 2006)

In conclusion, these new studies highlight the importance of individualizing treatment with antipsychotics, due to the high variability of response and discontinuation rate found. Likewise, they confirm the benefits of changing the antipsychotic drug in certain patients with schizophrenia resistant to treatment with drugs. They also indicate, except in patients with greater risk or the presence of EPSs, the justification of making conventional antipsychotics the first-choice class of drug, given their similar effectiveness and low cost. Finally, the unexpected results on the modest effectiveness of the pharmacological treatment of schizophrenia should lead to a reappraisal of current pharmacological approaches to this disorder. The key in terms of therapy would actually not necessarily seem to reside in the well-trodden path of direct or indirect modulation of the systems of dopaminergic neurotransmission in the brain, which is the action mechanism common to all antipsychotics developed up to now. Moreover, the extremely high discontinuation rate for antipsychotic medication, together with its minimal beneficial effect on the low quality of life of patients with schizophrenia, suggest an urgent need for the introduction of new and more effective drugs or therapies. We hope and trust that effectiveness studies can be extended to other psychoactive drugs, and that they will stimulate research on the etiopathology of schizophrenia and other serious mental disorders.

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MULTIDIMENSIONALITY OF SCHIZOTYPY UNDER REVIEW

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The purpose of this article was to review dimensional studies of schizotypy in the last decade, particularly on its nature and structure, with a view to a better understanding and definition of this construct. Data from these studies indicate that schizotypy is a multidimensional construct consisting of three or four dimensions. A Positive factor (Unusual experiences) and a Negative factor (Anhedonia) were widely confirmed, but a third or even a fourth dimension (Disorganization, Impulsive Nonconformity, Paranoia or Social Anxiety) were also found. Dimensions of schizotypy vary according to gender and age, men presenting higher scores in the Negative dimension than women, while women score higher than men in the Positive dimension and in the Social Anxiety factor; however, a precise comparison is hindered by the instruments, the samples, and the statistical model used. The Schizotypal Personality Questionnaire is the most widely studied instrument, as it shows good consistency in a tri-factorial solution. Factorial analyses of schizotypy were carried out in widely differing cultures. Future research should bear several aspects in mind, notably: methodological shortcomings, the combined use of different measures of schizotypy, the study of this construct in different cultures, and the relationship of schizotypy to other variables.
***Key words**: Review, Schizotypy, Psychosis proneness, schizotypal traits, Factor analysis*

El objetivo del presente trabajo consistió en llevar a cabo una revisión de las dimensiones de la esquizotipia en la última década. La finalidad fue estudiar la naturaleza y estructura de la esquizotipia de cara a una mejor comprensión y delimitación del constructo. Los datos indican que la esquizotipia es un constructo multidimensional que se puede concretar en tres o cuatro dimensiones. El factor Positivo (Experiencias Inusuales) y el factor Negativo (anhedonia) han sido ampliamente replicados. El tercer y/o cuarto se concreta en una dimensión de Desorganización, de No Conformidad Impulsiva, de Paranoia o Ansiedad Social. Las dimensiones de la esquizotipia varían en función del sexo y la edad. Los varones tienden a puntuar más elevado que las mujeres en la dimensión negativa mientras que las mujeres lo hacen en la dimensión positiva y en el factor Ansiedad Social. La comparación estricta entre los estudios factoriales se encuentra dificultada por el tipo de instrumento, la muestra empleada y el modelo estadístico utilizado. El Schizotypal Personality Questionnaire es el cuestionario más investigado, mostrando gran consistencia en su solución trifactorial. Los estudios factoriales de la esquizotipia se han realizado en una amplia variedad de culturas. Las futuras investigaciones deberán tener presente las limitaciones metodológicas, la aplicación de diferentes medidas de esquizotipia de forma conjunta, el estudio del constructo a través de las diferentes culturas y la relación de la esquizotipia con otras variables.
***Palabras clave**: Revisión, Esquizotipia, Propensión a la psicosis, Rasgos de la esquizotipia, Análisis factorial*

One of the most important challenges for psychopathology today is the study of the features and characteristics that make people vulnerable to the appearance of psychological disorders. Thus, current research efforts are aimed at detection of and early intervention in people with a propensity for developing psychological problems. In this regard, studies on early intervention in schizophrenia are quite well-developed by comparison with those on other disorders. The literature indicates that early intervention in schizophrenia is a good predictor of obtaining better results in treatment (McGlashan & Johannessen, 1996), a finding that has led to the development of a wide variety of programmes throughout the world (Vallina, Lemos Giráldez, & Fernández, 2006).

Schizotypy has been since its origins closely related to psychosis. The schizotypy concept, also referred to by the term psychosis proneness (Chapman, Edell, & Chapman, 1980), can be seen as a normal personality dimension or as an indicator of predisposition to psychoses (Claridge, 1997; Cyhlarova & Claridge, 2005). Diverse studies indicate that psychotic experiences are present in the normal population, suggesting the existence of a

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dimensional continuum (Johns & van Os, 2001) between the normal population and such experiences (Verdoux & Van Os, 2002). Schizotypy is within the framework of this model (Claridge, 1997), also extending from non-pathological personality (health) to psychosis (illness). Variations along this continuum describe different degrees of predisposition to psychotic disorders. Such vulnerability or predisposition to schizophrenia is expressed, then, along a psychopathological continuum.

The relevance of research on schizotypal features rests on three basic points. First of all, it helps to improve understanding of the mechanisms underlying schizophrenia, exploring the links between the two entities. Secondly, it permits the study of subjects free of psychotic illness, without the side effects of medication and iatrogeny (Heron, Jones, Williams, Owen, Craddock, & Jones, 2003; Martinena Palacio et al., 2006). Thirdly, it offers the possibility of detecting, by means of self-reports and interviews, participants with a high probability of developing disorders on the schizophrenic spectrum, in the so-called psychometric high-risk paradigm (Lenzenweger, 1994).

Studies on assessment of schizotypal personality fall basically within the framework of psychometric high-risk research. Their purpose is none other than to detect, by means of psychometric tests, those subjects likely to develop disorders on the schizophrenic spectrum, such as schizophrenia, schizoaffective disorders or schizoid, paranoid or schizotypal personality. Thus, high scores in the schizotypy measure appear to indicate a certain proneness to the development of disorders on the schizophrenic spectrum (Chapman, Chapman, Raulin, & Eckblad, 1994; Gooding, Kathleen, & Matts, 2005; Kwapil, Miller, Zinser, Chapman, & Chapman, 1997), and also constitute the best predictor with respect to subsequent development of this type of disorder among a broad range of psychopathological variables (Gooding et al., 2005). With the aim of measuring the schizotypy concept, a wide variety of self-report instruments have been created, the most notable of which are the *Schizotypal Personality Questionnaire*, in both its long and its short versions (Raine, 1991; Raine & Benishay, 1995), and the scales designed by the Wisconsin-Madison University group: *Perceptual Aberration Scale* (Chapman, Chapman, & Raulin, 1978), *Magical Ideation Scale* (Eckblad & Chapman, 1983), *Physical and Social Anhedonia Scales* (Chapman, Chapman, & Raulin, 1976) and *Revised Social Anhedonia Scale* (Eckblad, Chapman, Chapman, & Mishlove, 1982). The majority of these scales have been adapted and translated for Spanish samples by different research groups (Mata, Mataix-Cols, & Peralta, 2005; Muntaner, García-Sevilla, Fernández, & Torrubia, 1988).

As in the case of schizophrenia, a multidimensional structure has been proposed for schizotypy. There has been extensive debate in recent years on the structure of schizotypy, with attempts to determine the nature and number of psychopathological dimensions. The objective of the present work is to study the nature and structure of schizotypy through the different factorial studies carried out on assessment self-reports. The purpose is to provide an up-to-date picture of schizotypy and to clarify its structure, in terms of number and content of factors, with a view to understanding, defining and working with this construct.

MULTIDIMENSIONALITY OF SCHIZOTYPY

Research on the dimensionality of schizotypy is closely linked to the technique of factor analysis and the notion of factor itself. Therefore, before embarking on the study of the schizotypy dimensions it is necessary to clarify the objective of factor analysis and what we understand by factor. According to the main proponent of this technique in Spain, Mariano Yela: "*The aim of factor analysis is to reveal the dimensions of common variability in a given field of phenomena. Each dimension of common variability is called a factor*" (Yela, 1997, p. 25).

Concentrating on the factor analyses of schizophrenia and schizotypy, the accumulated empirical evidence indicates that schizophrenia is a multifactorial construct (John, Khanna, Thennarasu, & Reddy, 2003; Lemos Giráldez et al., 2006; Lindenmayer et al., 2004). The factors found in schizotypy emerge as phenotypically parallel to those found in schizophrenia. This similarity between the two entities may indicate a common aetiological mechanism (Meehl, 1962), though not necessarily so (Venables & Rector, 2000).

Table 1 shows the factor analyses carried out in the last decade and the number of factors, type of sample, instrument used and type of statistical analysis. It is important to mention that the factorial studies carried out differ clearly in sample type (clinical, non-clinical, culture of origin and age), number of participants, quantity and type of measurement instruments employed and methodological analyses, which makes their comparison extremely difficult (Álvarez López & Andrés Pueyo, 2006;

TABLE 1
PRINCIPAL RESEARCHERS FOR FACTORIAL STUDIES ON SCHIZOTYPY, 1997-2007

Reference	*Nº of factors*		*Scales*	*Sample N; Mean (SD)*	*Type and nationality*	*Type of analysis*
Chen, Hsiao, & Lin, 1997	3	Cognitive-Perceptual Interpersonal Disorganization	SPQ PAS	(1) 345; 42.9 (12.8) (2) 115; 14.0 (0.8)	(1) Adults (2) Adolescents from Taiwan	CFA
Wolfradt & Straube, 1998	3	Magical Ideation/Perceptual Experiences Ideas of reference/social anxiety Suspicion	STA	1362; 15.6 (1.12)	German adolescent students	EFA
DiDuca et al., 1999	5	Cognitive Perceptual Social Anhedonia Impulsiveness-Nonconformity Physical Anhedonia	JSS (MSTQ)	492; 15.5 (1.75)	English adolescent students	EFA-T
Martínez-Suárez et al., 1999	3	Positive Negative Impulsive Nonconformity	MSTQ (JSS)	721; 15.8	Spanish high-school students	EFA-T
Reynolds et al., 2000	3	Cognitive-Perceptual Interpersonal Deficits Disorganization	SPQ	1201;23.3 (1.17)	Mauritanians	CFA
Venables et al., 2000	3	Positive (disorganized) Negative Social Deficit	SS	330; 20.41 (5.89)	English student	CFA
Axelrod et al., 2001	3	Interpersonal Cognitive-Perceptual Disorganization	SPQ-B	237; 15.8 (1.4)	Adolescent psychiatric patients	EFA
Rawlings et al., 2001	5	Magical Thinking Paranoid Suspicion and Isolation Unusual Perceptual Experiences Social Anxiety	STA	1073; 39.9 (16.8)	English adults	EFA-T
Suhr et al., 2001	3	Positive Negative Disorganized	SPQ MAS MIS	1336	US university students	EFA
Suhr et al., 2001 (2)	3	Positive Negative Disorganized Paranoid Thinking	SPQ MAS MIS	348	US university students with high schizotypy	EFA
Rossi & Daneluzzo, 2002	3	Cognitive-Perceptual Interpersonal Deficits Disorganization	SPQ	347 5 subsamples group, Italians	Schizophrenics, bipolars, OCD, depressives and control M= between 25.4 and 43.4	CFA
Fossati et al., 2003	3	Cognitive-Perceptual Interpersonal Deficits Disorganization	SPQ	(1) 803; 21.93 (1.57) (2) 929; 16.43 (1.45)	(1) University students (2) Italian adolescent students	EFA
Stefanis et al., 2004	4	Cognitive-Perceptual Negative Paranoid Disorganization	SPQ	1335; 20.3 (1.8)	Greek reserve soldiers	CFA
Calkins et al., 2004	3	Cognitive-Perceptual Interpersonal Deficits Disorganization	SPQ	(1) 135; 46.5 (15.3) (2) 112; 34.6 (13.3)	(1) Relatives of psychotics (2) US adults	EFA
Linscott & Knight, 2004	4	Aberrant Beliefs Social Fear and Paranoia Anhedonia (physical and social) Aberrant Information Processing	TPSQ	216; 20.2 (3.8)	New Zealand university students	EFA-T

TABLE 1
PRINCIPAL RESEARCHERS FOR FACTORIAL STUDIES ON SCHIZOTYPY, 1997-2007

Reference	*Nº of factors*		*Scales*	*Sample N; Mean (SD)*	*Type and nationality*	*Type of analysis*
Cyhlarova et al., 2005	3	Unusual Perceptual Experiences Paranoid Ideation/Social Anxiety Magical Thinking	STA (children)	317; 13.3 (1.2)	English adolescent students	EFA
Lewandowski et al., 2006	3	Positive Schizotypy Negative Schizotypy Negative affect	PAS MIS PhARSoA BDI BAI	1258;19.4 (3.7)	US university students	CFA
Aycicegi et al., 2005	2	Positive Negative	SPQ-B	(1) 190; 20.3 (1.8) (2) 260; 18.7 (1.2)	(1) Turkish university students (2) US university students	EFA
Mata et al., 2005	3	Interpersonal Disorganization Cognitive-Perceptual	SPQ-B	477; 21.1/20.2 (4.6/4.3)	Spanish university students	EFA-T
Badcock et al., 2006	3	Cognitive-Perceptual Interpersonal Deficits Disorganization	SPQ	352; 39.9 (10.9)	Australian adults	CFA
van Kampen, 2006	3	Positive Schizotypy Negative Schizotypy Asocial Schizotypy	SSQ	771; 36.1 (10.3)	Dutch adultos	EFA
Wuthrich et al., 2006 (1)	3	Cognitive-Perceptual Interpersonal Disorganization	SPQ	558; 22.7 (6.4)	Australian university students	CFA
Wuthrich et al., 2006 (2)	3	Cognitive-Perceptual Interpersonal Disorganization	MIS PAS RoSA SPQ	277; 21.7(5.3)	Australian university students	CFA
Mass et al., 2007	6	Negative/Interpersonal Positive Cognitive-Perceptual Disorganized Schizotypy Magical Thinking Social Anxiety Psychotic Experiences	ESI,PAS, SPQ,STA and SPI	159; 26.3 (5)	German secondary and university students	EFA-O
Fonseca-Pedrero et al., 2007	4	Aberrant Information Processing Social Paranoia Anhedonia Aberrant Beliefs	TPSQ	321; 13.8 (1.3)	Spanish adolescents	EFA-T
Compton et al., 2007	3	Cognitive-perceptual Interpersonal Disorganization	SPQ-B	118; 46.2 (12.2)	US normal first-order relatives	CFA

Note: JSS: *Junior Schizotypy Scales*; CSTQ: *Combined Schizotypal Traits Questionnaire*; MIS: *Magical Ideation Scale*; PAS: *Perceptual Aberration Scale*; MSTQ: *Multidimensional Schizotypal Traits Questionnaire*; PAS: *Perceptual Aberration Scale*; PhA: *Physical Anhedonia*; RSoA: *Revised Social Anhedonia*; SPQ: *Schizotypal Personality Questionnaire*; SPQ-B: *Schizotypal Personality Questionnaire Brief*; SS: *Schizotypal Scale*; STA: *Schizotypal Personality Scale*; STB: *Borderline Personality Scale*; SSQ: *Schizotypal Syndrome Questionnaire*; BDI: *Beck Depression Inventory*; BAI: *Beck Anxiety Inventory*; O-LIFE: *Oxford-Liverpool Inventory of Feelings*. TPSQ: *Thinking and Perceptual Style Questionnaire*; ESI: *Eppenford Schizophrenia Inventory*; SPI: *Schizotypal Personality Inventory*.

CFA: Confirmatory Factor Analysis; EFA-T: Orthogonal Exploratory Factor Analysis; EFA- O: Oblique Exploratory Factor Analysis.

Stefanis, Smyrnis, Avramopoulos, Evdokimidis, Ntzoufras, & Stefanis, 2004).

As occurs in the case of schizophrenia, there seems to be no agreement on the number of dimensions. Factorial studies do not yet present a unitary picture with respect to the structure underlying schizotypy. The numbers proposed are two (Aycicegi, Dinn, & Harris, 2005), three (Compton, Chien, & Bollini, 2007; van Kampen, 2006;

Wuthrich & Bates, 2006) four (Mason & Claridge, 2006; Rawlings, Claridge, & Freeman, 2001; Stefanis et al., 2004), five (DiDuca & Joseph, 1999), or even six (Mass et al., 2007) dimensions. These factors vary according to participants' sex and age (Mata et al., 2005).

The majority of studies present a three- or four-dimensional solution in which the positive (Cognitive-Perceptual or Unusual Perceptual Experiences) and negative (Anhedonia, Introverted Anhedonia or Interpersonal Deficits) dimensions of schizotypy have been widely replicated. The current debate focuses on the inconsistent nature of the third dimension (Suhr & Spitznagel, 2001). In the three-dimensional models some authors propose a (Cognitive) Disorganization dimension (Fossati, Raine, Carretta, Leonardi, & Maffei, 2003), while others prefer an Impulsive / Asocial Nonconformity dimension (DiDuca & Joseph, 1999; Martínez-Suárez, Ferrando, Lemos, Inda Caro, Paino-Piñeiro, & López-Rodrigo, 1999; van Kampen, 2006). In the case of the four-dimensional models the factors proposed are Positive (Unusual Experiences), Negative (Introverted Anhedonia), Cognitive Disorganization, and Impulsive (Mason & Claridge, 2006) or Paranoid (Stefanis et al., 2004; Suhr & Spitznagel, 2001) Nonconformity. The Paranoid factor is usually combined with a Social Anxiety factor (Cyhlarova & Claridge, 2005; Wolfradt & Straube, 1998). The Positive dimension breaks up, resulting in the emergence of a factor of Magical Thinking or Aberrant Thoughts (Cyhlarova & Claridge, 2005; Fonseca-Pedrero, Campillo-Álvarez, Muñiz, Lemos Giráldez, & García-Cueto, 2007; Linscott & Knight, 2004; Rawlings et al., 2001). The variety of the factors found depends to a large extent on the instrument employed for measuring the construct. The body of research currently available includes studies that have used in a combined way various types of self-reports for measuring schizotypal features; the three-dimensional solution (positive, negative and disorganization), with or without modifications, has emerged as the most appropriate and stable (Chen, Hsiao, & Lin, 1997; Suhr & Spitznagel, 2001; Wuthrich & Bates, 2006).

The Positive dimension of schizotypy, also known as Unusual / Anomalous Perceptual Experiences or Cognitive-Perceptual, refers to an excessive or distorted functioning of a normal process. Its facets include hallucinations, paranoid ideation, ideas of reference and thinking disorders. On the other hand, the Negative factor, also known as Anhedonia, Introverted Anhedonia or Interpersonal Deficits, refers to a reduction or deficit in the person's normal behaviour. It embraces facets involving difficulties for experiencing pleasure at a physical and social level (anhedonia), flattened affect, absence of close confidants and difficulties in interpersonal relations. The Positive dimension is associated with temporolimbic dysfunctions, impulsiveness, antisocial behaviour (Dinn, Harris, Aycicegi, Greene, & Andover, 2002) and symptoms of anxiety and depression, indicating higher risk of presenting affective problems and non-affective psychotic disorders (Lewandowski, Barrantes-Vidal, Nelson-Gray, Clancy, Kepley, & Kwapil, 2006). The Negative dimension is associated with a deficit in frontal functions, social anxiety and obsessive-compulsive phenomena (Dinn et al., 2002). It appears to indicate a more specific risk of disorders in the schizophrenic spectrum (Lewandowski et al., 2006). Both the Positive and Negative dimensions of schizotypy have been associated with genetic vulnerability to schizophrenia (Calkins, Curtis, Grove, & Iacono, 2004; Vollema, Sitskoorn, Appels, & Kahn, 2002). The Disorganization factor describes thinking problems, strange or unusual language and strange behaviour. The Impulsive Nonconformity factor refers to aspects related to rebelliousness, impulsiveness and extravagance.

As Table 1 shows, with regard to type of sample in research on schizotypy, there are studies in children and adolescents (Cyhlarova & Claridge, 2005) and in adults (Badcock & Dragovic, 2006). Participants tend to be secondary-school pupils (Fonseca-Pedrero et al., 2007) or university students (Lewandowski et al., 2006), though there are also representative studies with reserve soldiers (Stefanis et al., 2004), in first-order relatives of schizophrenia patients (Calkins et al., 2004; Compton et al., 2007) and in other types of psychiatric population (Axelrod, Grilo, Sanislow, & McGlashan, 2001; Vollema & Hoijtink, 2000). Sample sizes vary considerably, from those with rather small numbers (Mass et al., 2007) to larger-scale ones (Suhr & Spitznagel, 2001).

The most widely-used psychometric measure in factorial studies is the *Schizotypal Personality Questionnaire* (SPQ), in its two versions (Raine, 1991; Raine & Benishay, 1995). The SPQ has been used in different populations with a range of different characteristics, as well as in conjunction with other schizotypy assessment measures and with other statistical models. As Vollema and Hoijtink (2000) point out, the SPQ data appear to

indicate a certain convergence towards a tripartite structure of schizotypy, invariant across sex, age (Badcock & Dragovic, 2006; Fossati et al., 2003), culture (nationality), religious affiliation, family conditions (e.g., adversity or its absence), psychopathology (Reynolds, Raine, Mellingen, Venables, & Mednick, 2000), sample composition and statistical models (Vollema & Hoijtink, 2000).

The last ten years have seen a tendency among researchers to carry out both exploratory and confirmatory factor analyses, which show a clear equivalence. Of all the factorial studies reviewed, there is only one approach from Rasch's multidimensional model (Vollema & Hoijtink, 2000), even though there are others with different purposes (Graves & Weinstein, 2004). Nevertheless, studies have also been carried out using cluster analysis (Barrantes-Vidal, Fañanás, Rosa, Caparrós, Riba, & Obiols, 2003).

As regards the nationality of participants in factorial studies on schizotypy, the review carried out indicates the presence of a wide variety of cultures. There are studies with Spanish (Fonseca-Pedrero et al., 2007), Australian (Wuthrich & Bates, 2006), American (Lewandowski et al., 2006), Italian (Fossati et al., 2003), German (Wolfradt & Straube, 1998), Oriental (Chen et al., 1997), Greek (Stefanis et al., 2004), New Zealander (Linscott & Knight, 2004) and British (Rawlings et al., 2001) participants. The structure of schizotypal features across different nationalities indicates substantial cultural invariance, which lends greater support to the cross-cultural validity of the construct.

Finally, as mentioned above, the schizotypal dimensions vary according to participants' sex and age. As far as sex is concerned, women score higher than men in the so-called positive symptoms (Cyhlarova & Claridge, 2005; Mason & Claridge, 2006; Mass et al., 2007; Mata et al., 2005; Rawlings et al., 2001; Venables & Bailes, 1994), as well as presenting higher total scores in some self-reports (Claridge et al., 1996; Rawlings et al., 2001) and Social Anxiety (Badcock & Dragovic, 2006; Fossati et al., 2003; Mass et al., 2007). In contrast, men tend to score higher than women in the so-called Negative dimension of schizotypy (Claridge et al., 1996; Linscott & Knight, 2004; Mason & Claridge, 2006; Venables & Bailes, 1994; Wuthrich & Bates, 2006) and on the SPQ subscales of flattened affect, strange behaviour and lack of close friends (Badcock & Dragovic, 2006; Wuthrich & Bates, 2006). With regard to age, the factorial studies carried out in adults indicate that the Negative factor (e.g., Introverted Anhedonia) is positively correlated with age, whilst the Positive factor is negatively correlated with it (Mason & Claridge, 2006; Mata et al., 2005; Rawlings et al., 2001). In comparisons of participants according to age, young people tend to score higher on the schizotypy scales and/or dimensions than those who are older (Chen et al., 1997; Fossati et al., 2003; Venables & Bailes, 1994). Factorial studies in adolescents indicate a certain tendency towards the paranoid ideation or thinking dimension (Cyhlarova & Claridge, 2005; Rawlings & MacFarlane, 1994; Suhr & Spitznagel, 2001; Venables & Bailes, 1994), though it should be borne in mind that schizotypal dimensions in this age group may form part of the processes of development and maturation (DiDuca & Joseph, 1999).

RECAPITULATION

The study of personality dimensions is a classic field but a highly pertinent one within psychology. In research on schizotypy there have so far been very few theoretical reviews attempting to provide a comprehensive account of the large number of studies on the subject. The aim of the present work is to explore the principal factor analyses of schizotypy. The purpose is none other than to analyze the structure and nature of schizotypy, in terms of the number and content of factors, with a view to better definition and understanding of the construct and consideration of its parallels with schizophrenic psychosis. The importance of schizotypy resides in the detection of people vulnerable to the development of disorders on the schizophrenic spectrum, in the study of symptoms similar to schizophrenia without side effects of the medication, and in an improved understanding of the mechanisms underlying schizophrenia and the links between the two entities.

The review of factor analyses reveals that schizotypy is a multidimensional construct based on three or four factors phenotypically similar to those found in schizophrenia. The Positive (Unusual Experiences) and the Negative (Anhedonia) dimensions appear in a consistent fashion throughout the literature. The third (or even fourth) dimension emerges as a factor of Disorganization, of Impulsive (Asocial) or Paranoid Nonconformity (sometimes linked to a Social Anxiety factor). In some studies the Positive factor of schizotypy breaks off, constituting a single factor called Magical Thinking or Aberrant Beliefs. The relationships between the factors

found are multiple, varied and confused, similar terms sometimes being used to define different dimensions. The variety of studies carried out over the last ten years reveals the richness of this field, in which there would seem to emerge a certain coherence in the nature and structure of schizotypy, even though it is still not a fully unitary concept. The main limitation found on making comparisons between factorial studies concerns the type and quantity of instruments, the nature of the sample, and the statistical model employed.

The *Schizotypal Personality Questionnaire* (SPQ), in both its long and its short versions, is the most widely used instrument for the assessment of schizotypy in the factorial studies reviewed. The samples used are basically made up of university students, among whom the schizotypy dimensions behave differently according to sex and age. As is also the case for schizophrenia, women tend to score higher than men in the Positive dimension, whilst men score higher in the Negative dimension.

The possible limitations observed in the review can be found at the methodological level. First of all, there are very few studies using samples selected at random from the population. Secondly, the majority of research concentrates on the normal population, on university students from introductory Psychology courses. Thirdly, there is scarce use of other, more recent models or statistical techniques, such as Item Response Theory (IRT). And fifthly, and as pointed out above, the features of schizotypal personality vary in accordance with certain characteristics of participants, with few studies evaluating systematically the differential functioning of the items (Guilera, Gómez, & Hidalgo, 2006).

Schizotypy has generated its own research line as regards its structure, nature and relationships with other constructs. Studies on schizotypy can be categorized according to three periods. The first of these saw the creation of scales for evaluating features similar to those of schizophrenia, such as the Wisconsin-Madison University group scales, referred to earlier. Subsequently, schizotypy measurement scales were designed from a multidimensional and comprehensive perspective of psychosis proneness, as is the case of the *Oxford-Liverpool Inventory of Feeling and Experiences* (O-LIFE) (Mason, Claridge, & Jackson, 1995). In a third period, the current one, researchers are carrying out factor analyses of a confirmatory type, as well as factor analyses employing in a combined fashion different self-reports for assessing the schizotypy dimensions. Work is also being done using factor analyses in conjunction with other scales that measure constructs related to schizotypal features, such as dissociative experiences (Pope & Kwapil, 2000), obsessive-compulsive disorder (Suhr, Spitznagel, & Gunstad, 2006), Asperger's syndrome (Hurst, Nelson-Gray, Mitchell, & Kwapil, 2006) or anxious-depressive symptomatology (Lewandowski et al., 2006).

Future research in the field of schizotypy should take into account such methodological limitations. The relationship between schizotypy and other psychopathological constructs (such as obsessive-compulsive disorder) is interesting with regard to both clinical practice and comorbidity studies. The development of combined factorial studies employing different types of schizotypy assessment instruments also appears to make sense with a view to unification of the construct. Globalization and internationalization lead to an increase in the number of test adaptations and translations from one culture to another, and such adaptations and translations should be carried out with rigour, following the guidelines of the *International Test Commission* (Muñiz & Hambleton, 1996). Studies comparing schizotypy across cultures are of great relevance to improved understanding of the cross-cultural, universal nature of schizotypy. Finally, instruments for evaluating schizotypy should demonstrate their predictive value, sensitivity and specificity in independent studies with a view to early detection and intervention in those who are prone to the development of disorders on the schizophrenic spectrum.

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MOTIVATIONAL INTERVENTION IN THE INITIAL PHASE OF SCHIZOPHRENIA

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Many studies have shown the effectiveness of early intervention programs for schizophrenia and their impact on illness outcome. In fact, preventive intervention in the prodromal period and after the first episode of psychosis has come to play a crucial role in research on the treatment of schizophrenia and in clinical procedures. The initial phase of schizophrenia affects many activity and relational areas that must be addressed by patients in their recovery, so that patient motivation in this early period is of the utmost importance for treatment. This article presents a review of the literature and a general consideration of motivational interventions in schizophrenia.

Key words: *schizophrenia, initial phase, early intervention, motivational intervention*

Son muchos los estudios que en los últimos quince años han demostrado la efectividad de los programas de intervención precoz en la esquizofrenia y su impacto sobre el pronóstico de la enfermedad. De hecho, la intervención preventiva en la fase prodrómica y posterior al primer episodio se ha convertido en una de las líneas principales de investigación y de aplicación clínica para el abordaje de la esquizofrenia. Durante el la fase inicial de la esquizofrenia, quedan paralizadas muchas áreas de actividad y relacionales a las cuales el paciente deberá enfrentarse durante la fase de recuperación. Su grado de motivación en esta fase será de vital importancia para el tratamiento. En el presente trabajo se presenta una revisión y algunas consideraciones acerca de las intervenciones motivacionales en la esquizofrenia.

Palabras clave: *esquizofrenia, fase inicial, intervención precoz, intervención motivacional*

EARLY PHASES OF SCHIZOPHRENIA: FIRST EPISODES

During the 1990s there was increasing optimism with respect to the prognosis of schizophrenic disorders. Much of this optimism was due to the emergence of second-generation neuroleptic drugs that were more effective and had fewer side-effects. Another reason for such optimism was the growing conviction that special attention in the early phases of psychosis could substantially reduce morbidity, influence the prognosis, increase quality of life in patients and their families and lead to high levels of clinical improvement.

The present study reflects how published reports of controlled clinical trials over the last ten years on the efficacy of cognitive-behavioural interventions in schizophrenia have totally confirmed that effective psychological treatments combined with neuroleptics have a high impact on the illness (Perona, Cuevas, Vallina & Lemos, 2003).

Thus, recent and current early intervention programmes opt for psychotherapy comprising interventional approaches that have demonstrated their efficacy in patients with schizophrenia.

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EMOTIONAL IMPACT OF THE FIRST PSYCHOTIC EPISODE AND A CONSIDERATION OF INTERVENTION

The psychopathological experiences of the first episode and the initial phase can have a truly disturbing and lasting effect on the person (McGorry et al., 1991). Undoubtedly, people tend to be more sensitive to treatment than in subsequent episodes and later phases, but relapses are also more frequent during the first five years (the so-called *critical period*) (Birchwood et al., 1998). It could be said that this period provides us with highly fertile ground for our intervention, though the matter is greatly complicated by the large quantity of variables to take into account during the onset of the first episode (McGorry, 2005).

Standard cognitive-behavioural therapy focuses on delusional beliefs, beliefs about voices and negative self-assessment, dealing in a more collateral fashion with subjective experience of the disorder and patients' coping with both their own difficulties and with their adaptation to the use of the new coping tools provided by the therapist.

From this perspective, and from the review of the effectiveness of interventions in patients suffering from psychosis, it emerges that combined intervention is essential for the correct treatment of the illness, but is not yet complete.

In this process of the initial phase there is a sudden break with everything that made up the person's self-concept, increasing confusion, affecting self-esteem levels and prompting the progressive disintegration of the identity (Ridgway, 2001; Birchwood et al., 1992).

It is at this point that the person realizes that everything that defined him or her as a unique and individual person is undergoing a process of change. Without doubt, the multiple and progressive losses the person experiences strongly affect his or her overall functioning (Harrop & Trower, 2001).

We can suppose that the process of adaptation to these changes might form part of a process of mourning, whose purpose would be the reconstruction of one's identity based on the integration or assimilation of each one of these losses (Palma, Ferrer, Farriols & Cebrià, 2006).

The patient's experience is commonly one of "paralysis"; the areas of global functioning have become blocked by the onset of the first episode, often having gradually deteriorated during the prodromal phase. The difficulties of the illness itself, with which the patient is burdened throughout the recovery phase, substantially reduce the person's functioning at the work, social, family, affective and recreational levels.

Thus, it would seem that the pathways of emotional unease are not concentrated in prodromal conditions or post-psychotic depressive symptoms, nor in effects secondary to the symptomatology of schizophrenia. After the onset of a first psychotic episode on the schizophrenic spectrum, the person will go through a series of complex processes in which emotional management and motivation will constitute the mainstay of their coping.

It should be borne in mind that the onset of the disorder most commonly occurs between adolescence and early adulthood, a time when one's personal identity is become consolidated (Ridgway, 2001), and this contributes to making it such a complex and onerous problem.

AFFECTIVE ASPECTS AND MOTIVATION: TWO KEY ELEMENTS IN TREATMENT

During this period, then, a series of emotional needs emerge that are not considered by the cognitive-behavioural therapy (CBT) treatments described. From an integrational perspective, the emotional component should be understood as a heuristic, a global construct covering both biological and psychological/psychosocial aspects of the individual. The person-centred approach stresses the value of the personal experience, the capacity to experience life events fully and consciously, the attitude of getting to know and valuing the being who one "really is" –as Rogers (1961) puts it –, which implies an attitude of being open to one's own complexity, to accepting oneself and accepting others. This is, moreover, an optimistic attitude, of openness to change, since experience is never static. And the emotional aspect is the basic structure underlying that experience.

Emotional treatment and accompaniment are clearly fundamental, and come into play in motivational intervention. Patients' motivation to start their own mechanisms of change is an essential requirement of the therapeutic process, but precisely in a context in which there has been a rupture and blockage of the person's areas of global functioning it becomes difficult to find motivations for change. And it is here where we find the principal difficulties of the therapeutic exercise with patients suffering from schizophrenia.

In spite of this complexity, since the mid-1990s researchers have been carrying out studies and trials in which they have incorporated motivational interventions into treatments for schizophrenia (not necessarily in the first episodes). We shall continue by looking at some of the principal results of these types of intervention.

The majority of studies have attempted to show the effectiveness of motivational or combined interventions on treatment compliance in people with psychotic disorders (Coffey, 1999; Gray, Robson & Bressington, 2002; Hayward, Chan, Kemp & Youle, 1995; Kemp, Kirov, Everitt, Hayward & David, 1998; Randall et al., 2002; Rusch & Corrigan, 2002; Swanson, Pantalon & Cohen, 1999; Walitzer, Dermen & Connors, 1999; Zygmunt, Olfson, Boyer & Mechanic, 2002) or on compliance with treatment for substance abuse (Baker et al., 2002a; Baker et al., 2002b; Barrowclough et al., 2001; Bellack & Diclemente, 1999; Brown et al., 2003; Etter, Mohr, Garin & Etter, 2004; Graeber, Moyers, Griffith, Guajardo & Tonigan, 2003; Haddock et al., 2003; Kavanagh et al., 2004; Martino, Carroll, O'Malley & Rounsaville, 2000; Martino, Carroll, Kostas, Perkins & Rounsaville, 2002; Pantalon & Swanson, 2003; Steinberg, Ziedonis, Krejci & Brandon, 2004; Tsuang et al., 2004; Van Horn & Bux, 2001; Zhang, Harmon, Werkner & McCormick, 2004).

The main difficulty for assessing results concerns the variation in what different authors understand by motivational intervention. Little research has been carried out in this area, and although some guidelines have been drawn up, particularly in pioneering works such as those of Miller and Rollnick (1991), there are no manuals for motivational intervention in psychotic disorders. This shortcoming in this particular field of intervention makes it difficult at the present time to draw firm conclusions from reviews.

For the present article we selected the thirteen works with *good quality* criteria, with descriptions of the methodological aspects in relation to selection, random assignment, blinding and losses (Jadad, 1998). The purpose is to observe the results and consider the principal conclusions of the studies (see Table 1).

In general, better results are observed in relation to the objectives set in 90% of studies that compare motivational intervention with another therapeutic technique. Nevertheless, this difference in improvement was only statistically significant in 55% of the studies.

As regards clinical results, some studies endorse the effectiveness of motivational intervention for improvements in relation to level of *insight,* attitude towards medication, relationship with services, symptomatology and global functioning, substance use, and relapses.

On the other hand, it would be highly advantageous to consider the heterogeneity of the term "motivational intervention" – with a view to achieving some kind of consensus – so as to avoid confusion about the type of intervention involved in each study. From this starting point there emerges a need to carry out more studies in this line in order to draw more consistent conclusions.

THE CONCEPT OF MOTIVATIONAL INTERVENTION

We shall continue by examining the content of motivational interventions. Some studies understand motivational intervention as a set of strategies making up a style (and themselves interwoven) in specific interventions such as social skills training or problem-solving therapy (Kemp, Kirov, Everitt, Hayward & David, 1998; Swanson, Pantalon & Cohen, 1999; Bellack & Diclemente, 1999; Barrowclough et al., 2001; Haddock et al., 2003; Tsuang et al., 2004). Other studies start out from a view that understands motivational intervention as a model in itself (rather than merely an intervention style) (Baker et al., 2002, Graeber, 2003, Brown et al., 2003; Steinberg, Ziedonis, Krejci & Brandon, 2004).

SOME GENERAL PREMISES OF MOTIVATIONAL INTERVENTION

Coinciding with the former point of view, we believe the climate in the therapist-patient relationship to be based largely on the style of the therapist him/herself, to the extent that the pioneers of the motivational interview (MI) have used the term *motivational spirit* (Rollnick et al., 1995) to refer to this form of relating to the patient. From these bases, motivational intervention could be defined according to the following principles (see Table 2):

Thus, the professional's task is essentially to identify the intrinsic values that stimulate change in the patient, facilitate the verbal expression of ambivalence, employ strategies for provoking ambivalence, clarify and resolve that ambivalence in a framework of respect and unconditional acceptance and promote patients' freedom of choice and independence with regard to their behaviour (Cebrià & Bosch, 1999,2000).

Psychotherapeutic changes feed off an empathic and authentic relationship with the professional, and the motivation for these changes is developed by the patient; the professional respects the person's independence and freedom of choice (Palma, Cebrià, Farriols, Cañete & Muñoz, 2005).

The crucial aspect is the therapist's belief in patients' own resources and in their independence for experiencing, directing and managing their own process of recovery and adaptation.

The therapist, during the intervention, tries to get patients to position themselves and accumulate reasons for adopting more functional attitudes or behaviours, increasing their commitment and determination; in this way they will be able to resist the psychological suffering involved in all types of change (Cebrià & Bosch, 2000). This idea is also derived from one of the principles of cognitive therapy, whereby if a person has a mistaken belief about reality it is because they have accumulated sufficient present and contextual reasons for doing so; thus, unless they find a valid alternative to their beliefs, they will be unlikely to develop mechanisms for changing them (Sassaroli & Lorenzini, 2004).

Motivational intervention is underpinned by some theoretical principles described by Miller and Rollnick (1991), on which the pertinent techniques are articulated.

- ✔ *The expression of empathy*: empathy is by definition an acquired ability involving "putting yourself in the other person's place". In the framework of the relationship with the patient, in addition to understanding

TABLE 1
RESULTS OF THE STUDIES ON MOTIVATIONAL INTERVENTIONS IN THE TREATMENT OF SCHIZOPHRENIA

Studies	N	Comparison groups	Principal results
(Hayward et al., 1995)	25	- Drug compliance therapy (Motivational Interview, MI) - Control group	Changes are observed in attitude to medication and improvement at the level of *insight*. However, in comparison with the control group the improvement is not statistically significant.
(Kemp, Kirov, Everitt, Hayward & David, 1998)	74	- Drug compliance therapy (motivational interview strategies) - Counselling	For the group on compliance therapy an improvement is observed in attitude towards medication, and there is better fulfilment of therapeutic instructions and an improvement in *insight*.
(Swanson et al., 1999)	121	- Standard treatment (pharmacological, individual and group psychotherapy, leisure activities) - Standard treatment + motivational intervention.	The proportion of patients that linked up adequately with services during the follow-up was greater in the MI group ($p<0.01$). The same applied to the patients with dual diagnosis (42% of the group that received MI, compared to 16% of the standard treatment group; $p<0.01$).
(Barrowclough et al., 2001)	36	- Motivational intervention + cognitive-behavioural therapy + family intervention + standard treatment. - Standard treatment.	Statistically significant improvement in the first group at the level of global functioning after 12 months' intervention ($p=0.001$). The improvement in positive symptomatology is also significant in the first group compared to the second at 12 months ($p=0.01$), as it is in negative symptomatology ($p<0.02$). Differences are also observed in relapse rates in favour of the first group ($p<0.05$)
(Baker et al., 2002a and b)	160	-Motivational intervention (n=79) -Standard treatment (n=81)	No statistically significant differences were observed between groups in relation to reduction of substance use or to treatment compliance
(Haddock et al., 2003)	36	- Motivational intervention + cognitive-behavioural therapy + family intervention + standard treatment. - Standard treatment.	Statistically significant improvement in the first group at the level of global functioning at 12 months. No differences are observed in relation to reduction in carers' needs or in health system costs for either group.
(Graeber et al., 2003)	30	- Psychoeducational intervention - Motivational intervention.	Statistical differences are observed in abstinence rates in favour of the group that received motivational intervention.
(Brown et al., (2003)	191	- Motivational intervention - Brief advice	Motivational intervention was more effective than brief advice for abstinence from smoking in people with schizophrenia. It was more effective in adolescents, whether or not they had the intention to change their habit. However, it was not effective in adolescents with a history of attempts to give up.
(O'Donnell *et al.*, 2003)	94	- Motivational therapy for compliance - Counselling	One year after the intervention, therapeutic compliance did not differ between the intervention and control groups. No differences were found in improvement of symptoms or in quality of life.
(Steinberg et al., 2004)	78	- Motivational intervention - Counselling - Brief advice	The researchers observed a higher proportion of people in the first group that gave up smoking (32%) with respect to the groups receiving counselling (11%) and brief advice (0%) in a single session.
(Kavanagh et al., 2004)	25	- Motivational intervention - Standard treatment	All the participants in the first group gave up consumption after 6 months of therapy, compared to 58% of control group participants. Changes were maintained at 12-month follow-up
(Haddock et al., 2003)	36	- Motivational intervention + cognitive-behavioural therapy + family intervention + standard treatment. - Standard treatment.	The first group showed a maintenance of improvement in global functioning and negative symptoms 18 months after the intervention. However, differences were not notable in either relapses or number of days of abstinence (though the rates were lower).
(Bellack, Bennett, Gearon, Brown & Yang, 2006)	129	- Motivational intervention + social skills training - Control group (support therapy)	The results show significant effects in the first group in post-treatment at 6 months in the measures of management of community resources, rehospitalizations and quality of life.

with unconditional acceptance what the client is expressing, the professional should be capable of transmitting by means of verbal or non-verbal facilitators that the emotion presented is received and taken on board.

- ✔ *Helping to develop discrepancy*: the professional attempts to get patients to identify and verbalize the conflict or discrepancy between their present behaviour and their desired behaviour*: "I would love to go to the driving school, even just three days a week,… but when the time comes…".*

  The professional's objective is to increase the level of conflict in order to help the patient express emotions that generate discomfort (in a verbal or non-verbal fashion).

  The discomfort of some emotions that are repeated in different situations reported by the patient is the principal motor of change. In this context the therapist has to be alert to these emotions for facilitating expression, since the verbal expression of an uncomfortable situation in our own words is one of the principal motivations for a change of position (auditory self-conviction).
- ✔ *Avoiding attempts to persuade*: psychoeducational advice and recommendations provoke *rejection* (psychological reactance) (Bosch & Cebrià, 1999). Persuasion is not a good tool for convincing someone about the usefulness of a change, insofar as it can lead to resistance. Patients may feel that their freedom to choose is being controlled by some kind of authority.
- ✔ *Working with resistance*: the best tool for dealing with resistance is avoiding its appearance, though it sometimes emerges without the clinician's having intervened inappropriately. Resistance forms part of any natural process of change, but it is advantageous to have strategies for dealing with it. These would include:

  a) Empathy: The principal strategy for managing resistance is the verbal and non-verbal expression of empathy.

  b) Paradox: resistance often appears as a natural expression of psychological reactance. The paradox technique utilizes this reactance inversely, in favour of "no change", so that patients react in the opposite direction, actively seeking change themselves.

  c) Exploration of beliefs: most of the time, resistance goes hand in hand with the person's belief system. It is very difficult to promote a change if it is incongruent with one's belief system. Therefore, in the face of resistance it is generally useful to explore this system, ask the patient what he/she thinks about certain things and point out to him/her, if deemed necessary, any distortion that is maintaining the constructs. The objective is to deactivate those beliefs that block the processes of change and hinder the therapeutic task. In this regard, the *restructuring of ideas* technique can be useful.

  d) Refocusing on objectives: this is a strategy that can be employed when the patient avoids some issues and "beats about the bush", continually blocking the communication processes. Whenever clinicians consider it appropriate to intervene directly on the symptom they can use this strategy for dealing with resistance.

  e) Double pact: this is a strategy of negotiation with the patient that can be used when resistance is activated by a patient's need associated with the process of change.

  f) Exploration of values: this involves inquiring in detail about things that are important for the person and how they influence their current state.

  g) Balanced decision: the objective of this strategy is for the patient to weigh up the positive and negative aspects of the target behaviour. It is recommended to begin by asking about the positive aspects and eventually move on to those that are giving the patient some difficulty (focusing on the behaviour).
- ✔ *Enhancing and reinforcing the feeling of self-efficacy.* The principal motor of change is determined by three main elements: self-esteem, internal locus of control and belief in the possibility of change. The therapist's

TABLE 2
PRINCIPAL ELEMENTS OF MOTIVATIONAL INTERVENTION

- It is a patient-centred intervention style
- The therapist decides which elements it should reflect from the patient's discourse
- The therapeutic relationship is one of collaboration between experts (professional-patient), rather than of expert-patient
- The intention is to promote changes in behaviour through statements of commitment drawn up by the patient.
- The method involves helping patients to explore and resolve their own ambivalence (Miller & Rollnick, 1991)
- It is based on the cross-theoretical model of stages of change (Prochaska & Diclemente, 1992)

role here is to encourage the feeling of **ability** by carefully reinforcing all of the person's abilities that denote control over one's behaviours. Patients have to experience small sensations of success in the framework of the therapeutic relationship in order to feed their self-esteem and strengthen their self-efficacy in the proposed behaviours. The patient connects with his or her deepest and most powerful motivations. At a psychophysiological level, the fronto-limbic connections are reinforced.

On the basis of these principles, patient and therapist, in their expert-to-expert relationship, will begin their journey through the different stages of change set out in Prochaska and Diclemente's (1992) cross-theoretical model: pre-contemplation, contemplation, preparation, action, maintenance and relapse. Nevertheless, the motivational strategies described by pioneers Miller and Rollnick in 1991 must be adapted to the patient in question. In the case of patients with schizophrenia we find certain common difficulties that must be borne in mind, such as cognitive deterioration, information-processing difficulties, deficits in the perception or interpretation of affective stimuli, thinking disorders or awareness of the illness.

In this context, motivational strategies should be specifically adapted to the implicit difficulties of communication with the schizophrenic patient (Palma et al., 2005).

EFFECTIVENESS OF MOTIVATIONAL INTERVENTIONS IN THE INITIAL PHASE OF SCHIZOPHRENIA

In the light of the results from the selected studies on motivational intervention, in which 90% obtain better results than the control or comparison groups, 55% of which are statistically significant, we could deduce that it is an effective type of intervention for helping patients with schizophrenia to change their behaviours.

Moreover, given that the majority of this research has been carried out with schizophrenic patients in advanced phases, we can infer that in the early phases the results of motivational intervention might be more sensitive, since there is a lesser presence of elements of elements of deterioration, relapses, pharmacological treatments, and so on.

Indeed, we believe this phase of the illness to be the ideal point to use this type of intervention. But we cannot ignore some aspects that will make it difficult, and which we must bear in mind in order to be able to use this approach in an integrated, appropriate and focused manner. The motivational style acts as a backdrop, but can we use the tools to work in all contexts and at all times? The answer is no. Our experience is that during the initial phase schizophrenic patients do not, generally, have as many difficulties as a person many years into the disorder, but that they present difficulties which block some abilities essential for the use of motivational strategies. The main one of these, and the most common in patients who recover after their first episode (as outpatients, beyond the hospital context) is difficulty with introspection. This will greatly reduce the field of activity if we do not focus clearly on the objective pursued.

These patients' efforts are usually short-lived and infrequent, influenced by a pronounced external locus of control and by a rigid perception, so that they commonly have expectations of a negative type (Hodel & Brener, 2004). Therefore, progressive reinforcement of behaviours and insistence on recalling the objectives set is fundamental, as is collaboration and support from the family. In therapeutic practice, problem-solving techniques facilitate active behaviour in these people, as well as highlighting what they learn from their own experiences (Palma et al., 2005).

The aim of motivational strategies is not for patients to become more aware of their illness or to make sophisticated reflections on their life; rather, it is to progressively mobilize some of the areas affected by sudden rupture and secondary blockage at the onset of the first episode (including the prodromal stage).

We consider that the increase in **awareness of the illness** must be related basically with the taking of medication in the most independent way possible, and with involvement in psychosocial intervention programmes. A sudden awareness implying patients' identification with their often substantial limitations may hinder improvement due to the depressive symptoms this may bring with it (Palma et al., 2005).

Thus, without being too presumptuous about the potential of motivational intervention, we could set out the following four premises with regard to its suitability (see Table 3).

It should be borne in mind that the emotional impact on the person who has suffered a first psychotic episode is highly complex. This means that the therapist must pay particular attention to the process employed, given the likelihood of the patient's resistance when dealing with emotionally-charged issues. As mentioned above, the

emotional dimension involves the very life fabric of the person, including the awareness and acceptance of their experience and their problem.

This is the main reason why the intervention should be tailor-made, without the objectives marking the rhythm or pace of the process for patient. The emotional tempo is in the person experiencing the unease, not in the intervention; and in the course of the treatment patients will deal with each objective as and when they are emotionally prepared to do so. This "journey" constitutes a veritable learning-for-life process, made possible by attitudinal training, and which patients must undertake at their own pace. Among its objectives is that of increasing awareness about one's personal responsibilities and about the meaning of the experience of change, within a broad biographical context. Each and every behaviour acts as an indicator of change.

The therapist must therefore be alert to verbal and non-verbal signals – including behavioural ones, such as failure to keep session appointments, arriving late for sessions, talking about banal subjects in an attempt to avoid dealing with one's true concerns, etc. – and be able to adjust to the patient's rhythm.

Awareness of the illness, included as just one of the objectives of the intervention, at the suitable moment, could be considered as what Frankl describes on referring to the treatment of psychosis – the capacity to "go beyond the condition of the illness towards an image of the man", to discover for oneself the meaning of one's own suffering, which, more than an illness, can become a way of describing one's own being, one's own identity (Frankl, 1979, 1992).

For their own well-being, it is as important that therapists be able to respect the intervention process as it is for the patients themselves to be able to tolerate the frequent slowness with which small changes occur. This is why, on the basis of a sound alliance, the therapist must be a model of tolerance to processes of change, reinforcing each small success, since, in a patient with schizophrenia recovering from an episode, it is a great step forward to be able to approach the illness in a more constructive way, with a more conscious and rounded attitude.

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TABLE 3
CONSIDERATIONS IN MOTIVATIONAL INTERVENTION FOR SCHIZOPHRENIA

- The motivational style promotes a suitable climate for change, and a lack of changes does not imply failure. This style helps set the scene for work on emotional dysfunction resulting from a reaction to psychosis (Birchwood & Trower, 2005).
- It increases personal control of behaviour.
- The person's capacity for introspection must be valued.
- The behaviours to be changed must be specified. Among the commonest behaviours worked on by means of motivational interventions are:
- The taking of medication in the most independent way possible.
- Drug use.
- Compliance with psychological treatment and with therapeutic schedules.
- Doing activities.
- Task-planning habits.
- Hygiene habits.

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