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Rethinking the concept of addictions: steps towards dual pathology

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Editorial

Since the 1980s, several epidemiological studies have demonstrated the existence of significant statistical associations showing the high prevalence of co-occurrence between Substance Use Disorders (SUD) and Other Psychiatric Disorders (OPD),[1,2] which ranges between 20% and 50% in general population and between 40% and 80% in clinical population.2 Likewise, epidemiological studies suggest that in more than 80% of cases OPD started before the onset of SUD, so that people with OPD are up to 3 times more likely to develop SUD later.[3-6]

It is also known that in most cases such co-occurrence points out the interaction of various psychopathological diagnostic categories, i.e. a person with SUD can have more than one OPD. This co-occurrence has been called differently: Co-occurring Disorders, Dual Diagnosis, Dual Disorder or as it has been called in Spanish: *Patología Dual* (Dual Pathology).[1,2,7,8]

Notwithstanding the various nomenclatures and the apparent lack of consensus among clinicians and scientists, Dual Pathology has an adverse impact on quality of life and biopsychosocial functioning of people suffering from this, since the coexistence between SUD and OPD is associated with high rates of: severity of addiction and of co-occurring psychiatric symptoms, suicidality (suicidal thinking and behavior), greater use of medical services, emergency, psychiatry and addiction, relapse and abandonment of treatment, injecting drug use, sexual risk behavior (multiple partners and unprotected sex), spread of HIV, HBV, HCV and other sexually transmitted diseases (STDs), violent and criminal behavior, as well as imprisonment, homelessness, vagrancy and social adjustment work, school, financial and family burden problems.[2,8-12]

In summary, people with Dual Pathology have high levels of biopsychosocial deterioration, a situation that increases the risk of disability, placing them at greater risk of social marginalization. But why talking about Dual Pathology and not only about substance abuse?

Historically, the concept of addictions has adopted different philosophical and conceptual orientations ranging from religious, existentialist, biological, or psychological, to integrative orientations, such as biopsychosocial.[13] For example, in 1930, Alcoholics Anonymous (AA) conceived alcoholism as an allergic disease, since it put forward that the disorganized, obsessive, and compulsive behavior is the result of alcohol intake as an allergen.

This early conception of alcoholism had an impact not only on how to define alcohol and other drug addiction, but also on decades of models and programs for its care. After the influence of the mutual self-help philosophy, a very long period of time elapsed so that psychology and psychiatry could adopt and integrate methodologies and concepts from other scientific disciplines allowing a better understanding of the complexity of the human brain and mind, and thus of addiction.[12]

Therefore, until the 1980s different neurobiological theories appeared attempting to explain addictions.[14] All of such theories were based on the substance-centered paradigm which is explained in terms of neurobiological mechanisms and their effects on the brain reward system. However, there is evidence supporting the idea that, from the vast majority of people at risk of substance use, only a portion use them; and, from these people, an even smaller portion develops a problematic or addictive behavior. This assumption leads us to propose and reinforce the paradigm of individual vulnerability.[8]

This paradigm supports the existence of neurobiological, genetic, epigenetic and psychopathological pre-existing factors that cause people to develop problematic and addictive substance consumption, as well as impulsive and/or compulsive behaviors such as pathological gambling.[8,15]

For example, preliminary findings of behavioral genetics report approaches of premorbid vulnerability where people with SUD have more robust associations with the so-called externalizing disorders (attention deficit and hyperactivity

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disorders, oppositional defiant disorder, conduct disorder, personality disorders, etc.) predominantly in men; while the so-called internalizing disorders (major depressive disorder, dysthymia, generalized anxiety disorder, etc.) occur co-ocurrently with SUDs more often in women.[16] Additionally, clinical epidemiology indicates that OPDs start at a very early age and, predominantly, before SUDs.[3,5] These findings are part of the growing evidence supporting the hypothesis of Dual Pathology as a form of a neurodevelopmental disorder rather than as a process of only neuroadaptation.[8]

Moreover, this theoretical evolution has also set trends in how to structure care services for SUDs; hence the evidence of transitions ranging from mutual self-help to psychosocial paradigm models.[17] However, and still focusing on the great contributions of existing models, scientific evidence supports the need to rethink the conceptualization of addiction as well as how to prevent and treat it.

As an example, the fact that a large number of adult patients with SUD and co-occurrence with antisocial personality disorder reported having, in their childhood and adolescence, attention deficit and hyperactivity disorders, oppositional defiant disorder and conduct disorder[18] is not a coincidence, but probably a causality. Therefore, thinking in the development and implementation of prevention models based on the treatment of disorders preceding SUDs could be a cost-effective strategy.[15]

Nevertheless, to achieve success, Dual Pathology as a new paradigm requires integrated models of prevention and treatment; which would challenge the current (public and private) service health-care model, supporting a marked split in the treatment of SUDs and OPDs, and favoring the operation of sequential or parallel models of care, a situation that has only generated high costs and poor efficiency.[15]

Today, there no answers to all the questions, but rethinking the concept of addiction from scientific evidence is the first step towards a new paradigm. Thus, by using science as a driver of change, not only would revolutionize the concept of addictions, but would impact positively on existing prevention, treatment, human resource training and public policies programs. The foregoing, with the purpose of redirecting all available health infrastructure to be more effective and efficient on behalf of people affected by the phenomenon of Dual Pathology.

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