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BEHAVIORAL ACTIVATION AND LEISURE IN THE FIRST PSYCHOTIC EPISODE: A CASE STUDY

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Abstract: The present research delves into the implementation of leisure activities and behavioral activation as therapeutic means to attenuate negative symptoms in patients with incipient psychotic episodes. An intervention of 12 semi-structured sessions was implemented with two participants: a 20-year-old boy and a 23-year-old girl. Leisure employment was conceptualized not only as a social reintegration strategy, but also as a vehicle to revitalize the state of encourage and reinforce social and personal connections. Although preliminary results point in a positive direction, more extensive validation is required to consolidate the effectiveness of this interventional strategy in improving patient well-being.
Keywords: Behavioral activation, first psychotic episode, case study, leisure and psychosis.

INTRODUCTION

When analyzing the concept of leisure, it can be understood in two ways: as an end in itself or as a means to achieve an objective (Molano and Agustín, 2006; Iwasaki et al., 2015). When we consider leisure as an end, three key characteristics stand out: the freedom and voluntariness in its choice, the experience of pleasure and satisfaction that it entails, and its intrinsic value and purpose in itself. In contrast, when leisure is seen as a means, it refers mainly to therapeutic leisure, where recreational activities are tools used to induce changes in the behavior of individuals.

This leads to understanding that leisure involves improvements in different areas of people's lives. Likewise, it is very necessary in the socialization and integration of adolescents into society (Uceda et al., 2014). Consequently, in other studies family leisure is valued for promoting trust between family members, improving mutual respect, improving cohesion, adaptability and functionality of families in general (Buswell et al., 2012; Belmonte et al. al., 2021).

Similarly, leisure is also presented as a means of protection against addictions, especially among university students, as pointed out by Morueta et al. (2009). These authors suggest that by strengthening the options for leisure and cultural activities, personal development can be promoted. Among the most popular leisure activities mentioned in this study are video games, reading and music. On the other hand, Litwiller et al., (2017), indicate that sports, dancing, nights out and movies are the most popular leisure preferences among young people.

In relation to the implementation of therapeutic leisure with people with mental disorders, caution must be taken and avoid creating specific activities for this group assuming that the community space cannot cover them. This would cause segregation between groups, strengthening stereotypes and favoring isolation from the rest of society (Iwasaki et al., 2015). Furthermore, it is essential to recognize that people with serious mental disorders deserve interventions in the field of leisure that address their needs in an individualized manner (Cella et al., 2016; Uceda et al., 2014).

In short, leisure can be understood as that space in which people disassociate themselves from the routines established by work or educational commitments (Litwiller et al., 2017). Despite the relevance of the topic, there is a paucity of recent research related to leisure and mental health. However, the Vizcaya Association of Relatives and People with Mental Illness (AVIFES) carried out a study in 2019 to explore in detail the leisure activities of people with mental illnesses (AVIFES, 2019). This study revealed that around 60% of respondents preferred a specific leisure activity: walking. However, when the activities were classified by category, the most prevalent

were those related to cultural consumption (21.7%) and physical activity (21.1%). Cultural consumption includes activities such as listening to music, watching television, attending movies or visiting museums.

In the broad spectrum of mental disorders, psychosis represents a particular challenge. The first psychotic episodes mark a crucial moment in a person's life, not only because of the positive symptoms, which alter the perception of reality, but also because of the negative symptoms and depressive manifestations that often accompany them (Alessandrini et al, 2016; Domenech et al., 2019; Guajardo et al., 2015; Haro et al., 2015). These manifestations can significantly restrict the individual's ability to participate in daily activities, further aggravating their isolation and suffering.

Therefore, it seems interesting to adopt therapeutic approaches that transcend mere pharmacological treatment and address these negative and depressive symptoms. In this sense, for those people who have lost their routines or motivation, behavioral activation emerges as a promising tool. Its goal of connecting people with rewarding and reinforcing activities may be especially relevant in this context, accumulating considerable empirical support (Gaudiano et al., 2015; Hasson-Ohayon et al., 2017; Kanter et al., 2012; Martín et al., 2014).

By promoting participation in activities, we not only seek a return to social integration, but also cultivate enriching experiences that can counteract the effects of apathy and isolation that often accompany psychotic disorders. Leisure, therefore, is not simply a distraction, but a therapeutic tool that can rebuild connections, revitalize spirits, and provide a sense of purpose.

According to the importance and relevance of leisure, it was decided to carry out a case study. This work aims to evaluate the feasibility and effectiveness of an intervention based on the integration of leisure through behavioral activation, for young people who suffer a first psychotic episode. It is hoped that this case study will shed light on the potential benefits of such an intervention and contribute to adapting, refining and expanding this approach in larger future research.

METHOD

PARTICIPANTS

The case study presented below focuses on two young people diagnosed with a psychotic disorder in the initial stages, whose predominant symptoms were negative symptoms: reduction of expression, thinking and cognitive ability, accompanied by a noticeable disinterest and lack of enjoyment in daily activities. During the intervention period, they did not have hallucinations or active delusions.

The first patient, a 20-year-old boy, was diagnosed with a first psychotic episode 10 weeks ago. However, he has had a history of admissions to the psychiatric unit due to intense episodes of anxiety and distress. Since he was 14 years old, he has been under psychiatric follow-up, going through different phases in his clinical evolution. He has been treated with antipsychotics such as Risperidone and benzodiazepines, specifically Lorazepam. However, he has not taken these medications for more than a year, a decision he made himself, since, according to what he says, they made him feel sleepy. Currently, he does not have an established routine, does not follow a fixed schedule and, inferred, minimal supervision in his home.

The second participant is a 23-year-old girl diagnosed with a psychotic disorder for 6 months. Prior to this diagnosis, she had experienced recurrent episodes of discouragement and apathy, being

hospitalized on one occasion for a major depressive episode when she was 18 years old. Since she was 16, she has been monitored by a mental health team, presenting ups and downs in her therapeutic process. She was previously prescribed an antipsychotic, Olanzapine, along with antidepressants, in this case Fluoxetine. Although the medications seemed to stabilize her mood, she decided to stop taking them eight months ago, citing that she felt "disconnected" and had "little energy" to carry out daily activities. Currently, her life lacks leisure activities and structure: she spends most of her time at home, often avoiding social contact and without work or educational commitments to structure her daily life. The apparent lack of motivation and the absence of a routine worry her family, as they notice a gradual disconnection from reality.

INSTRUMENTS

Behavioral Activation Scale for Depression (BADS, for its acronym in English, Kanter et al., 2007; adapted to Spanish by Barraca et al., 2011): it is a 25-item instrument with a Likert-type response ranging from 0 (not at all) up to 6 (totally true), thus making the range of scores from 0 to 150. In addition, it can be divided into 4 subscales: activation, avoidance/rumination, affectation of work/activity and affectation of social life. Its internal consistency is 0.90 (Barraca et al., 2011). The higher the score on the scale, the better global activation.

Environmental Reward Observation Scale (EROS, for its acronym in English, Armento and Hopko, 2007, adaptation to Spanish by Barraca and Pérez-Álvarez, 2010): is an instrument that serves to obtain an objective self-assessment of the degree of reinforcement that the person considers what he has from the environment. There are 10 items and they are scored on a Likert scale from 0 (totally disagree) to 4 (totally agree), with the range of scores being 0 to 40. The higher the score, the greater the perception of reinforcement from the environment. Its internal consistency is 0.85 (Barraca and Pérez-Álvarez, 2010).

Scale for the Evaluation of Negative Symptoms. (SANS for its acronym in English, Andreasen 1982, 1984; Spanish version Vásquez, 1989). Instrument to evaluate the severity of negative symptoms in psychotic disorders. The SANS consists of 30 items and evaluates the severity of negative symptoms on a Likert-type scale (0-5), in five categories: blunted affectivity, alogia, abulia–apathy, anhedonia–unsociability, and impaired attention. The sum of the five categories gives a score of 0 to 25, and the sum of the 20 items (not counting the global scale) gives a sum of 0 to 100. The reliability for the negative symptoms scale ranges between 0.74 and 0.83 for the different subscales.

PROCEDURE

The selection of participants for this study was based on an intentional, non-probabilistic approach, oriented towards individuals who were optimally suited to the clinical situation of interest. To be considered eligible for the study, individuals had to meet specific criteria: be of legal age, not being treated with psychotropic drugs at the time of inclusion, and be going through a first psychotic episode.

Participants provided informed consent to participate in the research. They were informed in detail about the purpose and procedures of the study, guaranteeing their understanding and voluntary participation, without incurring any conflicting ethical principles.

Before the intervention, all participants underwent an initial evaluation, which served to establish a baseline of their clinical status. Once this baseline was determined, we proceeded to the intervention phase, which

consisted of 12 individual and semi-structured sessions, aimed at addressing and treating the psychotic episode. At the conclusion of the intervention sessions, a post-intervention evaluation was carried out with the objective of determining the changes and adjustments resulting from the therapeutic sessions.

Finally, to evaluate the sustainability and effectiveness of the intervention in the medium term, a follow-up evaluation was carried out three months after the post-intervention. This last phase sought to analyze the evolution of the participants and verify the persistence of the results obtained during the intervention.

INTERVENTION

It has been based on the methodology proposed by Mairs et al., (2011), which is based on the models described by Lejuez et al., (2001) and Richards et al., (2008). Because of the inherent clarity and conciseness of these paradigms, it is possible to outline treatment in a four-stage structure.

1. Assessment of current activity levels through a diary or activity schedule.

2. Identify activities (pleasure, need, routine) that offer access to optimal reinforcements.

3. These activities are listed and organized in a hierarchical order.

4. Goals are established to systematically introduce the selected activities in a gradual manner.

Session 1 - Functional and contextual evaluation:

• Detailed exploration of the current daily routines and activities that participants perform.

• Functional analysis of problem behaviors: identify antecedents, consequences and contingencies. Explanation to patients of the three-term model.

• Brief presentation of behavioral activation: objectives and expectations.

Session 2 - Assessment of behavioral repertoire:

• Structured record of activities that were previously pleasurable or that you wanted to resume. For example, Patient 1 remembers that she enjoyed playing strategy video games with friends. Patient 2 comments that she used to "get lost" in historical and fantasy fiction novels.

• Measurement of the frequency, duration and context of these activities.

• Introduction to self-registration tools for the following week.

Session 3 - Establishment of daily behavioral routines:

• Joint development of a structured schedule, emphasizing the importance of sleep and eating routines.

• Planning basic activities at home that you can do.

• Introduction to the token economy system to reinforce adherence. In addition, for each completed activity of the daily routine, they earned a token. By accumulating 10 tokens, they could exchange them for a reward, such as an activity of their choice accompanied by the therapist.

Session 4 - Introduction to the activation hierarchy:

• Joint list of activities from least to greatest difficulty.

• Selecting 2-3 low-effort activities to integrate into your week. Example for Patient 1: Get out of bed before 9 a.m., eat breakfast, and walk for 20 minutes. Example for Patient 2: eat breakfast,

stretch muscles for 15 minutes and meditate for 10 minutes.

• Live reinforcement of any progress made. Whenever patients showed progress in the activities, the therapist provided immediate positive reinforcement through verbal rules, promoting contingency learning. For example, "You did a great job getting up early and eating breakfast. It's an important step toward establishing a routine." Another important point was to observe and point out the clinically observable behaviors that occurred in the sessions. If the patient showed signs of being more cheerful, less anxious, or more engaged, these observations were reinforced. For example: "I've noticed that you are more energetic and focused today in our conversation. It's a good indication of your progress."

Session 5 - Behavioral confrontation with barriers:

• Identification of thoughts and emotions that hindered activation. Example of thinking for Patient 1: "If I try to socialize or go out, people will judge me or think I'm weird." Example of thinking for Patient 2: "no matter what I do, I will never get out of this state of despondency."

• Live exposure techniques to situations that generate anxiety, starting with the least threatening.

• Practice of behavioral relaxation techniques.

Session 6 - Increase in prosocial activities:

• Brainstorming simple social activities, such as making a call, sending a Whatsapp or walking with a friend.

• Role-playing of social situations and reinforcement of social skills.

• Setting a small social goal for the week.

Session 7 - Diversification of reinforcing activities:

• Introduction of new activities based on previously identified interests.

• Role-playing and practicing the skills necessary for these activities.

• Differential reinforcement of more complex activities. For example, Patient 2 committed to making a simple recipe once a week (desired behavior) but one day decided to make a two-course dinner for her family (more complex behavior), the therapist provided more intense reinforcement for that more advanced action that was important to the patient.

Session 8 - Self-monitoring and self-reinforcement:

• Training in self-observation techniques: recording when and how you carry out activities. For both patients, WhatsApp was used, sending the records to their own telephone number, this way they recorded functionally at all times.

• Design a self-reinforcement system: give yourself small rewards for achievements. Some examples were: buying a magazine, watching an extra episode of the series she was watching at that moment,

• Review of records and necessary adjustments.

Session 9 - Relapse prevention:

• Discussion about possible triggers for activation relapses.

• Role-playing challenging situations and how to deal with them.

• Creation of an "emergency plan" for low mood or motivation. These plans consisted of; recognize warning signs (for example, desire to isolate, frequent

crying, intense negative thoughts), intervene immediately through activities that patients know help them feel a little better or distract them. A support network was created, that is, a list of trusted people whom patients could call or send a message to when they felt bad. Motivational messages (phrases that the person finds reinforcing) were also written.

Session 10 - Expansion of the social and support network:

• Identification of group activities related to her interests. Activities were jointly sought to be carried out within the community and that were appealing to the patients.

• Strategies to approach and participate in these groups. Imagined guided presentations were carried out and live accompaniment was provided with both patients to the chosen activities.

• Reinforcement of the importance of social support.

Session 11 - Evaluation and adjustment of activation goals:

• Detailed review of the progress achieved so far.

• Adjustment of activities and goals based on patient progress and feedback.

• Reinforcement of achievements and adjustment of challenges.

Session 12 - Generalization and maintenance of skills:

• Discussion on how to transfer skills and routines to new contexts or situations.

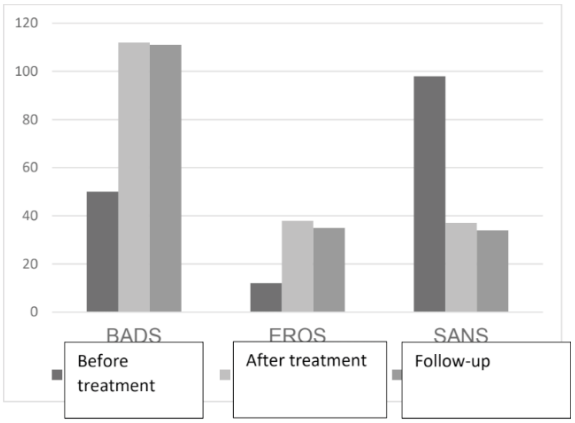
• Creating a structured plan for the next few weeks after therapy.

• Completion and reinforcement of commitment to activation.

RESULTS

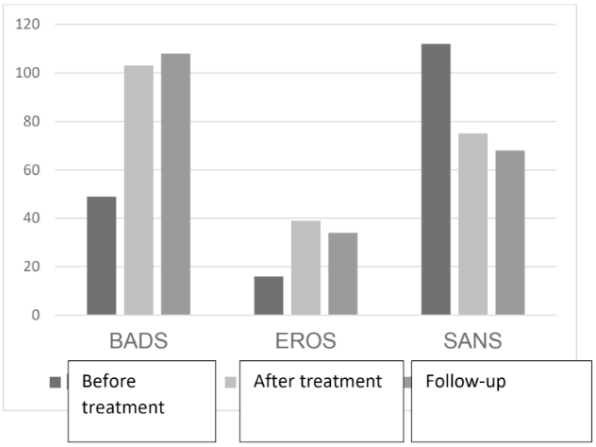
The analysis of the results obtained from the intervention was carried out at the individual and group level with the use of SPSS software, version 23. Considering that this study has a preliminary approach and has a small number of participants, attention was focused on confidence intervals and effect sizes, rather than focusing on the statistical significance of the results. Related samples t tests were used, adjusting to the distribution of the data, in order to determine the magnitude of the effect. Additionally, Pearson's r correlation coefficient was used to discern the experimental power of the effect.

Figure 1 illustrates the mean scores of Patient 1, obtained using three evaluative instruments at three time intervals: pretreatment, posttreatment, and three-month follow-up. In relation to the Behavioral Activation for Depression Scale (BADS), a progression is identified in the mean scores of 50, 112 and 111, respectively, indicating a substantial increase in global activation after the intervention and a subsequent stabilization in the follow-up phase. At the same time, the scores on the Environment Reward Observation Scale (EROS) were 12, 38 and 35, in the aforementioned time intervals, which denotes an increase in the perception of the environment as more reinforcing and rewarding post-intervention. On the other hand, in the Negative Symptom Assessment Scale (SANS), the scores recorded were 98, 37 and 34, showing a reduction in negative symptoms in the subscales of flattened affectivity, alogia, anhedonia, avolition and inattention, after the intervention, with relative constancy in the follow-up period.



Graph 1: Evaluation of means in three instruments for Patient 1.

Note: Own elaboration



Graph 2. Evaluation of means in three instruments for Patient 2.

Note: Own elaboration

Figure 2 presents the mean scores of Patient 2 at the three evaluation moments: pretreatment, posttreatment, and three-month follow-up, using the same instruments mentioned above. In the case of the BADS scale, scores progressed from 49 in pretreatment to 103 in posttreatment, remaining at 108 in follow-up, suggesting a notable increase in global activation after the intervention, with a slight additional improvement during the treatment. follow-up period. Regarding the EROS scale, the scores evolved from 16 in pretreatment to 39 in posttreatment, experiencing a slight decrease to 34 in follow-up. This pattern points to an increase in the perception of the environment as more reinforcing after the intervention, although with a small reduction at follow-up, without returning to initial levels. Finally, with respect to the SANS, the scores decreased from 112 in pretreatment to 75 in posttreatment, reducing further to 68 in follow-up, indicating a pronounced reduction in negative symptoms, in particular, in the various subscales of the instrument, after intervention and further improvement in subsequent months.

Table 1 shows the results of the post-treatment effect size in the three instruments used. Regarding the BADS, a substantial increase is seen in the mean scores from 49.50 (sd = 0.70) in the pretreatment to 107.50 (sd = 6.36) in the post-treatment, remaining at 109.50. (sd = 2.12) during follow-up. The 95% confidence intervals for the difference between the pretreatment and posttreatment scores range from -108.82 to -7.17, indicating that the difference in the means does not cross the point of no difference (zero), which It is a positive indicator of change. Furthermore, an effect size d of -10.3 and a correlation r of 1 are indicative of a substantial effect and a good association.

On the other hand, EROS shows a notable increase from pretreatment (M = 14, dt = 2.82) to posttreatment (M = 38.50, dt = 0.70), with a small reduction at follow-up (M = 34.50, dt = 0.70). The 95% confidence intervals, ranging from -43.55 to -5.44, also demonstrate a positive clinical change, supported by a d effect size of -11.55 and an r correlation of 1, suggesting an effect robust and a good correlation.

Finally, for the SANS, a considerable reduction is observed from pre-treatment scores (M = 105, sd = 9.89) to post-treatment

	Before treatment	After treatment	Follow-up	95% confidence interval of the difference		After treatment
VARIABLES	Average (*dt*)	Average (*dt*)	Average (*dt*)	Lower	Upper	Effect size
BADS	49,50 (0,70)	107,50 (6,36)	109,50 (2,12)	-108,82	-7,17	*r*=1 *d*=-10,3
EROS	14 (2,82)	38,50 (0,70)	34,50 (0,70)	-43,55	-5,44	*r*=1 *d*=-11,55
SANS	105 (9,89)	56 (26,87)	51 (24,04)	-103,47	201,47	*r*=1 *d*=2,89

Table 1: Evolution of Scores in the pre-treatment, post-treatment and follow-up phases.

Note: Own elaboration

scores (M = 56, sd = 26.87), with an additional decrease at follow-up. (M = 51, sd = 24.04). However, the confidence intervals for the difference (-103.47 to 201.47) cross zero, suggesting caution in the interpretation of these results, since the variability in the differences in the scores includes the point of not difference. The effect size d is 2.89 and the correlation r is 1, indicating a large effect and a good correlation, but it is important to consider the width of the confidence interval when interpreting these results.

DISCUSSION

The current study, exploratory and based on a single-case design, examined the potential efficacy and feasibility of an intervention focused on integrating leisure through behavioral activation in youth during a first psychotic episode. Although the results are preliminary and require validation with larger samples, they offer clues to the potential benefits of this approach.

The 12-session intervention has focused on the use of behavioral activation to improve the quality of life of young people experiencing a first psychotic episode. Throughout the process, patients have been guided through a series of stages strategically designed to encourage greater participation in pleasurable and socially connected activities, as well as to learn to overcome barriers that prevent activation.

In this sense and following empirical models (Hasson-Ohayon et al., 2017; Kanter et al., 2012; Martín et al., 2014), the intervention began with a functional evaluation, followed by the assessment of the behavioral repertoire and the establishment of basic routines. Patients were then introduced to the activation hierarchy and taught to address behavioral and cognitive barriers. Half of the program focused on increasing prosocial activities and diversifying reinforcing activities. Self-management and self-reinforcement were introduced, while relapse prevention strategies were explored. The final parts included a strategy on increasing the patient's social network, evaluating and adjusting activation goals, and generalizing and maintaining the skills acquired during the intervention.

The intervention discussed is coherently articulated with the strategies proposed by Mairs et al., (2011) and Gaudiano et al., (2015), which seek to attenuate negative symptoms in cases of psychosis. Both previous research and the current intervention converge in the pragmatic implementation of strategies linked to leisure, all of them oriented towards enhancing the functionality and well-being of patients. This approach not only aims to improve patients' living conditions, but also seeks to offer a tangible and effective path to recovery and continuous improvement in their daily quality of life.

In short, although the findings are tentative

and limited to the context of a case study, they hint at the potential of leisure integration through behavioral activation in the treatment of youth in early psychotic episodes. The pilot nature of this research invites reflection on the results and encourages further, broader and controlled research to be carried out to more precisely discern the effectiveness, applicability and optimization of this therapeutic approach in similar populations.

REFERENCES

Alessandrini, M., Lançon, C., Fond, G., Faget-Agius, C., Richieri, R., Faugere, M., Metairie, E., Boucekine, M., Llorca, P.-M., Auquier, P., & Boyer, L. (2016). A structural equation modelling approach to explore the determinants of quality of life in schizophrenia. *Schizophrenia Research*, *171*(1–3), 27–34. https://doi.org/10.1016/j.schres.2016.01.012

Andreasen, N. C (1982). *Scale for the Assessment of Negative Symptoms (SANS)*. Iowa City: University of Iowa.

Armento, M. E., & Hopko, D. R. (2007). The environmental reward observation scale (EROS): development, validity, and reliability. *Behavior Therapy*, *38*(2), 107-119.

Asociación Vizcaína de Familiares y Personas con Enfermedad Mental (AVIFES) (2019). *Ocio y Salud Mental. Proyectando el futuro.* AVIFES. https://avifes.org/wp-content/uploads/2021/05/Ocio-y-salud-mental-Proyectando-el-futuro.pdf

Barraca, J., & Pérez-Álvarez, M. (2010). Adaptación española del Environmental Reward Observation Scale (EROS). *Ansiedad y Estrés*, *16*(1).

Barraca, J., Pérez-Álvarez, M., & Bleda, J. H. L. (2011). Avoidance and activation as keys to depression: Adaptation of the Behavioral Activation for Depression Scale in a Spanish sample. *The Spanish Journal of Psychology, 14*(2), 998-1009.

Belmonte, M. L., Álvarez-Muñoz, J. S., & Hernández Prados, M. Á. (2021). Beneficios del ocio familiar durante el confinamiento. *Psicoperspectivas*, *20*(3). https://dx.doi.org/10.5027/psicoperspectivas-vol20-issue3-fulltext-2364

Buswell, L., Zabriskie, R. B., Lundberg, N., & Hawkins, A. J. (2012). The relationship between father involvement in family leisure and family functioning: The importance of daily family leisure. *Leisure Sciences, 34*, 172-190. https://doi.org/10.1080/01490400.2012.652510

Cella, M., Edwards, C., & Wykes, T. (2016). A question of time: A study of time use in people with schizophrenia. *Schizophrenia Research*, *176*(2–3), 480–484. https://doi.org/10.1016/j.schres.2016.06.033

Domenech, C., Bernasconi, C., Moneta, M. V., Nordstroem, A.-L., Cristobal-Narvaez, P., Vorstenbosch, E., Cobo, J., Ochoa, S., & Haro, J. M. (2019). Health-related quality of life associated with different symptoms in women and in men who suffer from schizophrenia. *Archives of Women's Mental Health, 22*(3), 357–365. https://doi.org/10.1007/s00737-018-0896-0

Gaudiano, B. A., Busch, A. M., Wenze, S. J., Nowlan, K., Epstein-Lubow, G., & Miller, I. W. (2015). Acceptance-based behavior therapy for depression with psychosis: Results from a pilot feasibility randomized controlled trial. *Journal of Psychiatric Practice*, *21*(5), 320–333. https://doi.org/10.1097/pra.0000000000000092

Guajardo, V. D., Terroni, L., Sobreiro, M. de F. M., Zerbini, M. I. dos S., Tinone, G., Scaff, M., Iosifescu, D. V., de Lucia, M. C. S., & Fráguas, R. (2015). The influence of depressive symptoms on quality of life after stroke: a prospective study. *Journal of Stroke and Cerebrovascular Diseases: The Official Journal of National Stroke Association*, *24*(1), 201–209. https://doi.org/10.1016/j.jstrokecerebrovasdis.2014.08.020

Haro, J. M., Altamura, C., Corral, R., Elkis, H., Evans, J., Malla, A., Krebs, M.-O., Zink, M., Bernasconi, C., Lalonde, J., & Nordstroem, A.-L. (2015). Understanding the impact of persistent symptoms in schizophrenia: Cross-sectional findings from the Pattern study. *Schizophrenia Research*, *169*(1–3), 234–240. https://doi.org/10.1016/j.schres.2015.09.001

Hasson-Ohayon, I., Arnon-Ribenfeld, N., Hamm, J. A., & Lysaker, P. H. (2017). Agency before action: The application of behavioral activation in psychotherapy with persons with psychosis. *Psychotherapy (Chicago, Ill.)*, *54*(3), 245–251. https://doi.org/10.1037/pst0000114

Iwasaki, Y., Messina, E., Shank, J., & Coyle, C. (2015). Role of leisure in meaning-making for community-dwelling adults with mental illness: Inspiration for engaged life. *Journal of Leisure Research*, *47*(5), 538–555. https://doi.org/10.18666/jlr-2015-v47-i5-5305

Kanter, J. W., Mulick, P. S., Busch, A. M., Berlin, K. S., & Martell, C. R. (2007). The Behavioral Activation for Depression Scale (BADS): psychometric properties and factor structure. *Journal of Psychopathology and Behavioral Assessment, 29*, 191-202.

Kanter, J. W., Puspitasari, A. J., Santos, M. M., & Nagy, G. A. (2012). Behavioural activation: history, evidence and promise. *The British Journal of Psychiatry, 200*(5), 361-363. doi: 10.1192/bjp.bp.111.103390

Lejuez, C. W., Hopko, D. R., Acierno, R., Daughters, S. B., & Sherry, L. (2011). Depression: Revised Treatment Manual Ten Year Revision of the Brief Behavioral Activation Treatment for Depression. *Behavior Modification, 35*, 111-161.

Litwiller, F., White, C., Gallant, K. A., Gilbert, R., Hutchinson, S., Hamilton-Hinch, B., & Lauckner, H. (2017). The benefits of recreation for the recovery and social inclusion of individuals with mental illness: An integrative review. *Leisure Sciences, 39*(1), 1–19. https://doi.org/10.1080/01490400.2015.1120168

Mairs, H., Lovell, K., Campbell, M., & Keeley, P. (2011). Development and pilot investigation of behavioral activation for negative symptoms. *Behavior Modification, 35*(5), 486–506. https://doi.org/10.1177/0145445511411706

Martín, L. C. F., Velasco, C. F., & Fernández, C. M. (2014). Terapia de activación conductual para síntomas negativos de la esquizofrenia: a propósito de un caso. *Norte de Salud Mental, 12*(49), 76-81.

Molano, M. M., & Agustín, I. B. (2006). El ocio terapéutico. In *Envejecimiento activo, envejecimiento en positivo* (pp. 133-154). Universidad de La Rioja.

Morueta, R. T., Gómez, J. I. A., & Gutiérrez, I. M. (2009). Factores de protección y de riesgo del consumo de alcohol en alumnos de la universidad de Huelva. *Salud y Drogas*, *9*(2), 165-183.

Richards, D., Lovell, K., Gilbody, S., Gask, L., Torgerson, D., Barkham, M., & Richardson, R. (2008). Collaborative care for depression in UK primary care: A randomised controlled trial. *Psychological Medicine, 38*, 279-287

Uceda, F. X., Navarro, J. J., & Pérez, J. V. (2014). El ocio constructivo como estrategia para la integración de adolescentes en conflicto con la ley. *Portularia, Revista de Trabajo Social de la Universidad de Huelva, 2014, vol. XIV, núm. 1, p. 49-57*

Vásquez, C. (1989). *Traducción española de la Escala para la Evaluación de Síntomas Negativos (SANS*). Facultad de Psicología (UCM): documento interno.