

## Group Psychotherapy and Minnesota Multiphasic Personality Inventory-2 In College Students

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### ABSTRACT

*The difference in personality traits between men and women have been documented, however, few studies focus on the changes after psychotherapy. This study compares personality traits of college students who attended group psychotherapy for 12 months, analyzing changes and differences between men and women. A quasi-experimental study was carried out with two measurements in a single group. In the basic scales, women decreased F ( $Z = -2.33$ ,  $p = .020$ ), Hs ( $Z = -2.80$ ,  $p = .005$ ), Pt ( $Z = -2.02$ ,  $p = .044$ ); men decreased D ( $Z = -3.03$ ,  $p = .002$ ) and IS ( $Z = -2.13$ ,  $p = .033$ ). In content scales, women had changes in DEP ( $Z = -2.55$ ,  $p = .011$ ), SAU ( $Z = -2.42$ ,  $p = .016$ ) RTR ( $Z = -2.12$ ,  $p = .034$ ); men in BAE ( $Z = -2.03$ ,  $p = .043$ ), DEL ( $Z = -2.14$ ,  $p = .033$ ), FAM ( $Z = -3.07$ ,  $p = .002$ ) SAU ( $Z = -2.34$ ,  $p = .019$ ). In the supplementary scales, women decreased in A ( $Z = -2.10$ ,  $p = .036$ ), Dpr ( $Z = -2.31$ ,  $p = .021$ ) EPK ( $Z = -2.74$ ,  $p = .006$ ) GF ( $Z = -2.12$ ,  $p = .028$ ); men in C ( $Z = -1.97$ ,  $p = .049$ ), GF ( $Z = -2.12$ ,  $p = .034$ ) and R ( $Z = -2.17$ ,  $p = .030$ ), tending to improve in the scale A-MAC ( $Z = -1.89$ ,  $p = .059$ ). Group psychotherapy offers positive changes in patients' personality traits and seems to have different effects regarding each gender.*

### Keywords

College students, Group psychotherapy, MMPI-2.

### Introduction

Over time, the psychotherapeutic process and its effects have been a matter of interest for researchers and psychotherapists. During the last years, investigation in psychotherapy has advanced in searching for the factors that may influence this approach, their effects, and durability over time.

Historically, several studies have investigated the effects of psychotherapy and the factors that intervene in its success or failure. Santibáñez P. et al. [1] observed the influence of common elements and unspecific variables in the psychotherapeutic change; they found that the diagnosis, expectations, and patient's willingness, as well as the therapist's personality, abilities, experience, and emotional well-being, are the main variables related to the psychotherapeutic result.

Other researchers have pointed out the relevance of the process by

studying the verbal interaction patterns between the therapist and the patient; for example, authors like Froján- P. et al. [2] and Ruiz-Sancho E et al. [3], studied the process that explains the clinical changes and enhances the quality of psychological therapy.

Regarding the changes observed in therapy and their durability over time, several authors like Espina J. & Cáceres J. [4], García H. & Fantin B. [5], Davins-Pujols M. et al. [6], and Zimmermann et al. [7] demonstrated that the patients' perception of improvement remained stable after finishing therapy. Additionally, patients gave positive feedback to the psychotherapist's interventions, showing conformity with the help they received. In 2014, VanVreeswijk M. et al. [8] investigated whether schema therapy in a group setting (group schema cognitive-behavioral therapy) was associated with changes in symptom and schema and mode severity, using a pre-post treatment design. They used the Symptom Checklist-90-R (SCL-90-R), the Schema Questionnaire, and the Young-Atkinson Mode Inventory, finding that over 50% of ambulatory patients showed clinical improvement after treatment in a short-term schema therapy group. Besides, all outcome measurements

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showed changes with moderate to high effect sizes. Therefore, the results suggested that changes in schemas and symptomatology mutually reinforce each other.

Concerning the instruments, the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) stands out because it has been the most widely used personality inventory among practitioners, and because it is one of the best validated multiscale measures for irrelevant responding, malingered psychopathology, and defensiveness [9-12].

This instrument has shown a high predictive value in mood and anxiety symptom reduction. Kurt D. Michael [13] evaluated 51 patients at a university training clinic, where they assessed patients using the MMPI-2, the Outcome Questionnaire (OQ45), and clinical evaluation. He found that scales such as L, F, 4, 6, and 8, were the most predictive regarding anguish evaluations. Other scales like 3, 2 and 1 were associated with symptom reduction over time; for example, patients who scored higher in these scales had less tendency to show symptom reduction, compared to those with lower scores, pointing out the patients who have more difficulty to improve, those who follow their treatment and those who will need constant revisions or even alternative therapeutic options.

Finn et al. [14] conducted a study where they pointed out the importance of sharing with the participants the results, they obtained in the different scales of the MMPI-2. They showed that those who received test feedback from the therapist reported a significant decline in symptomatic distress and a significant increase in self-esteem, and felt more hopeful about their problems, which persisted over time.

Within the literature, the MMPI-2 has also been used as a predictor of premature desertion of psychotherapeutic treatment. For example, in 2003, Díaz A., Jurado M., and Lucio E. [15] applied the MMPI-2 to all the individuals who attended to psychological treatment at a care center for college students. The objective was to identify the personality traits of the participants who stayed longer in psychotherapy and differentiate them from those who prematurely left the treatment. After three months, attendances were reviewed. The sample was divided into two groups: a group with those who remained from 1 to 4 consultations and the ones who received from 5 to 20 meetings. He found that the Depression (DEP), Hysteria (Hy), Health Concerns (HEA), Anger (ANG) and Ego Strength (Es) scales showed statistically significant differences when comparing the number of sessions. When comparing sex and number of sessions, the scales of Hypochondriasis (Hs), Hysteria (Hy), Masculinity-Femininity (Mf) and Health Concern are highly significant.

Anestis J. et al. [16] evaluated the usefulness of the restructured MMPI-2 to predict the premature cessation of psychotherapeutic treatment using the validity scales. He assessed 511 patients of a university psychological clinic. The indicators that predicted the early abandonment of the treatment were the Infrequency-Psychopathology responses (Fp). Those who tried to give an

impression of higher psychological adaptation were associated with the highest permanence in the therapy and finished it. Likewise, those who ended prematurely had higher scores in True Response Inconsistency (TRIN-r) as well as in Infrequency-Psychopathology responses. To sum up, the adoption of a set of incoherent responses predict a lack of commitment in the therapeutic process and the abandonment of treatments, while trying to present oneself as a psychologically stable person, reduces the risk of prematurely terminating the therapy.

There is a lot of evidence within the literature about the convenience of using the MMPI-2 in the individual psychotherapeutic process to assess changes in personality. However, there is less information about its utility within a group psychotherapeutic process. Therefore, Zimmerman [7] evaluated the effectiveness of group psychotherapy in soldiers with different pathologies such as depressive, neurotic, stress, and personality disorders, comparing them with a control group without treatment. The MMPI-K and the Symptom Checklist-90-R (SCL-90-R) were applied at the beginning and at the end of the therapy, which consisted of 90 sessions, obtaining significant improvements in the therapeutic scales compared to the first scores, unlike the control group where no significant changes were found.

In line with this, Cyranka et al. [17] studied the efficacy of group psychotherapy and assessed the changes in the personality profile and the severity of symptoms in patients with neurotic and personality disorders with short- and long-term group therapy. They applied the MMPI-2 at the beginning and the end of the psychotherapy, observing that the initial values in the patients were significantly higher compared to the healthy population. At the end of the treatment, an improvement was shown in most of the evaluated scales, demonstrating positive changes in areas of personality that had been previously classified as moderate or severe pathology.

Other investigations show the effect of group psychotherapy in the psychopathological and functional aspects and on the dimensions of the personality evaluated by the MMPI-2 like the one Terlidou C. [18] conducted, in which he studied the changes in the personality of the patients who successfully finished group therapy and the possible factors that determined these changes (duration of treatment, diagnosis, age).

There were 39 patients between 18 and 51 years old, who were assessed with the MMPI test and the Rorschach projective technique before entering therapy and evaluated six months after they finished. He found significant differences in 9 of 11 scales: Scale F and K, Hysteria, Depression, Hypochondria, Paranoia, Psychasthenia, Psychopathic Deviation, and Schizophrenia. He observed a significant decrease of clinical symptomatology, improved social adaptation, more controlled and better-adjusted emotional expressions, the maturity of internalized representations and ability to establish and maintain personal relationships, demonstrating the preservation of these characteristics over time.

Regarding investigations where sex and gender are considered, several studies that describe the differences between men and women. For instance, Gumbiner and Flowers [19] demonstrated statistically significant differences where men had higher scale scores on antisocial, authority problems, admission of addiction, and amorality than women. In contrast, women showed higher mean raw scale scores on Hypochondriasis, Depression, Hysteria, Paranoia, Depression subscale, Health Concerns, and Somatic Complaints, which agrees with previous research on literature. These authors studied a sample of 198 patients, where 132 were women, and 66 were men, with an average age of 33.9 years old. Some of them were college students with anxiety disorders, single parents with family and work problems; others were unemployed patients and diagnosed with mental health disorders. This paper concludes that men are more aggressive, antisocial, and are more likely to present drug abuse in the clinic population as well as in the non-clinic population. However, women have a propensity to present depression, have more health concerns and somatic complaints, according to MMPI-2 scales.

Seedat S. et al. [20] carried out a research which was published by the World Health Organization (WHO) in 2009, in order to study time-space (cohort-country) variation in gender differences in lifetime DSM-IV (Diagnostic and Statistical Manual of Mental Disorders-IV) mental disorders across cohorts in 15 countries and to determine if this variation is significantly related to time-space variation in female gender role traditionality as measured by aggregate patterns of female education, employment, marital timing, and use of birth control. The survey was applied in 72 933 residences in Africa, America, Asia, Europe, the Middle East, and the Pacific. They assessed the prevalence and age of onset of the anxiety, mood, externalizing, and substance disorders, finding that in all cohorts and countries, women had more anxiety and mood disorders than men. The difference between substance use and depressive disorder was reduced over time, shortening the difference between men and women.

In 2016, Schmitt et al. [21] found that in 58 nations, both men and women report higher levels of self-esteem in countries with more egalitarian gender roles, gender socialization, and sociopolitical gender equity. Nevertheless, the effects of cultural gender egalitarianism on men were stronger.

Additionally, literature has reported gender differences regarding depression, which suggests that women present higher levels of depression, approximately twice as prevalent among women as it is among men [22]. On the contrary, in 2012, Hopcroft and McLaughlin [23] found that the sex gap in feelings of depression is wider in high gender equity societies even though overall levels of feelings of depression are low.

## Objective

This study looks forward to comparing personality traits of students who attended group psychotherapy, at the beginning and 12 months after group therapy, and analyze possible changes and differences between men and women in these personality traits.

## Method

### Design

Quasi-experimental design, with two measures: at study entry and 12 months after in a single group.

### Participants

Using a convenience and non-probability sampling, 32 college students between 19 and 27 years old were assessed; seventeen of them were women (53%), and 15 (47%) were men.

To participate, a psychiatrist performed a clinical diagnostic interview and diagnosed them with depressive-anxious and mild personality disorders. Some of the participants were pharmacologically treated until they were stabilized in the acute phase so that afterward, they could join group psychotherapy.

The principal diagnosis found in the participants, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) were Major Depressive disorder in 25 students (78.1%), Anxiety and Depression in 4 participants (12.5%) and Social Anxiety Disorder in 3 of them (9.3%). The pharmacological treatments were antidepressants in 27 of the participants (84%), 4 of them (15%) had a combined treatment (methylphenidate, mood-stabilizing drugs or Benzodiazepines), one patient (3%) with mood-stabilizing drugs and 4 (12%) did not have any pharmacologic treatment.

### Instruments

**Sociodemographic questionnaire:** participants responded to the main sociodemographic characteristics, such as age, gender, marital status, education, occupation), considering most of them were college students.

### Minnesota Multiphasic Personality Inventory-2 (MMPI-2):

the Spanish adaptation was used since it is one of the most widely used and researched clinical assessment tool and because it counts with a reliable statistical base, which allows knowing the degree of validity of each of the scales and because it has been applied by mental health professionals to assess and diagnose mental illness, but it also has been utilized in other fields outside of clinical psychology [24].

This instrument allows the participant, through 567 items, to define their personality characteristics, to show the image they have of themselves, allowing to compare the study subjects with the general population. Lucio et al. [24], carried out the standardization of the test for the Mexican population, using a probabilistic, multistage, stratified sampling. The final normative sample included 1744 adults (860 men and 884 women). The participants came from different regions of the Mexican Republic, and their average age was from 19 to 90 years. Uniform T scores were obtained as well as means and standard deviations. The factorial analysis, as well as the reliability and validity studies of the test, showed that the Spanish version of MMPI-2 is a stable and reliable measure.

Standardized punctuations (T) were calculated for the validity scales: Lie (L), Infrequency (F) and Defensiveness (K), as

well as for the 10 clinical subscales: Hypochondriasis (Hs), Depression (D), Hysteria (Hy), Psychopathic Deviate (Pd), Masculinity/Femininity (Mf), Paranoia (Pa), Psychasthenia (Pt), Schizophrenia (Sc), Hypomania (Ma) and Social Introversion (Si). Also the Content scales' scores were calculated: (ANX) Anxiety, (FRS) Fears, (OBS) Obsessiveness, (DEP) Depression, (HEA) Health Concerns, (BIZ) Bizarre Mentation, (ANG) Anger, (CYN) Cynicism, (ASP) Antisocial Practices, (TPA) Type A Behavior, (LSE) Low Self Esteem, (SOD) Social Discomfort, (FAM) Family Problems, (WRK) Work Interference, and (TRT) Negative Treatment Indicators. Also for the 12 Supplementary scales: (Es) Ego Strength, (OH) Over-Controlled Hostility, (MAC-R) MacAndrews Alcoholism, (Do) Dominance, (Mt) College Maladjustment, (A) Anxiety, (R) Repression, (Re) Social Responsibility, (GM) Masculine Sex Role, (GF) Feminine Sex Role, (Pk) Post-traumatic Stress Disorder – Keane, (Ps) Post-traumatic Stress Disorder – Schlenger.

Participants who had T punctuations higher than 100 in F scales were not considered, as well as those with more than ten omitted elements.

### Procedure

The study was approved by the local Investigation and Ethics Committee (Project #109-2014).

Members of the group were selected according to an individual assessment by a psychiatrist and according to the DSM-IV; the inclusion criteria was anxious-depressive disorders and mild personality disorders as the principal diagnosis.

Before entering the group, the leading therapist assessed the participants in 3 individual sessions, so their symptomatology could be under control when joining the group. From that moment, the MMPI-2 was applied, and they were randomly assigned to any of the three psychotherapy groups. An average of 10 patients each formed each one of them. All of them signed an informed consent in which they accepted to answer the inventory and that their data would be used for the trial. After patients completed 12 months of therapy, once again, they were assessed with the MMPI-2.

Patients were treated with the Yalom type group psychotherapy, which focuses on the individuals' concerns, the here-and-now perspective, and the therapeutic factors. Therapeutic changes are the result of the guided interaction of human experiences, emphasizing interpersonal learning as a fundamental healing mechanism.

Each session lasted 2 hours and, with an approximate of 30 sessions during the 12 months. The group psychotherapy was conducted by a therapist with more than 30 years of experience in group psychotherapy together with a co-therapist with 25 years of experience in the group.

### Data analysis

All analyses were performed by the IBM Statistical Package for the

Social Sciences (SPSS), Version 23. Frequencies and percentages described the categorical variables, and their comparison by gender was performed with the Chi-square test. The time comparisons of the MMPI-2 scales (T scores) were made using the Wilcoxon test because when dividing by sex, the sample size was reduced and because 25% of the variables did not follow a normal distribution (evaluated by the Shapiro-Wilk test). The hypothesis tests were two-tailed, and the level of significance was established at a value of  $p \leq .05$ .

### Results

The sample was integrated by 32 students, 18 (56%) women and 14 (44%) men. The average age of the sample was 22.3 (SD  $\pm$  1.9), with an M = 22.17 (SD  $\pm$  1.8) years in women and M = 22.4 (SD  $\pm$  2.1) years in men, without significantly differing between them [ $t(29) = 0.31, p = .760$ ]. Five (16%) of the students were in high school, and 27 (84%) were undergraduate, without observing differences in their distribution by sex ( $\chi^2 = 0.64, p = .425$ ).

Figure 1 shows the pre-post changes in the basic scales of women, in whom a significant decrease was observed in the F scales (Z = -2.33,  $p = .020$ ), Hs (Z = -2.80,  $p = .005$ ) and Pt (Z = -2.02,  $p = .044$ ). Regarding this, men only decreased in the D scales (Z = -3.03,  $p = .002$ ) and IS (Z = -2.13,  $p = .033$ ) (Figure 2).

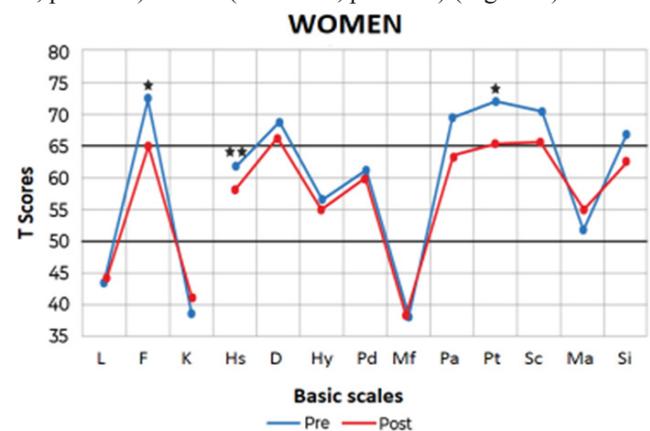


Figure 1: Changes from pre to post-treatment in the basic scales of women.

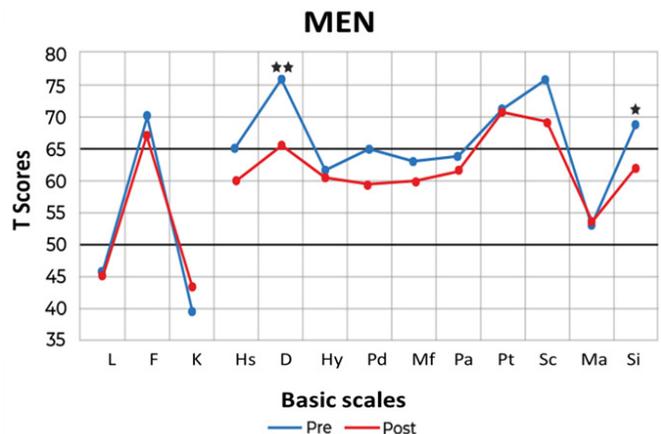
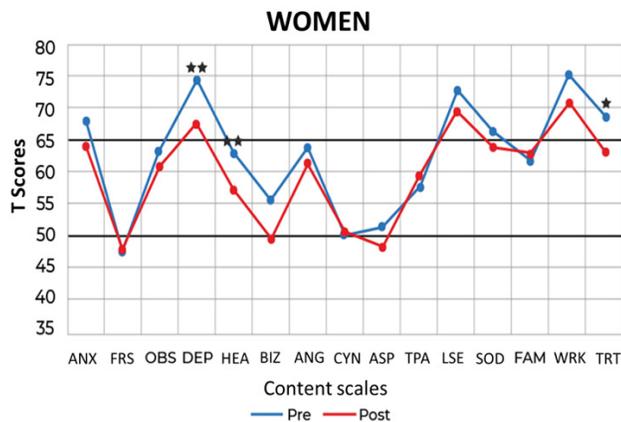
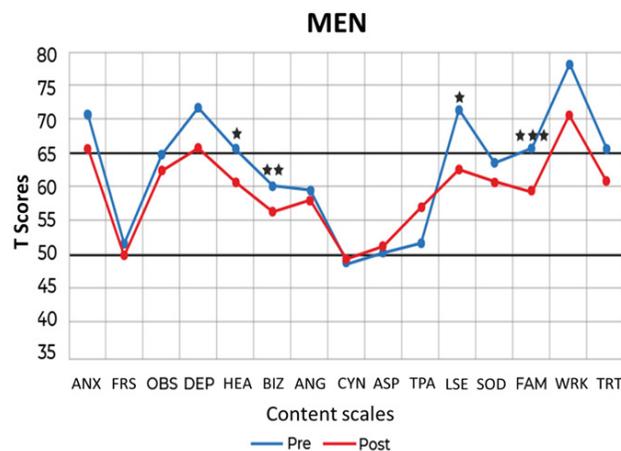


Figure 2: Changes from pre to post-treatment in the basic scales of men.

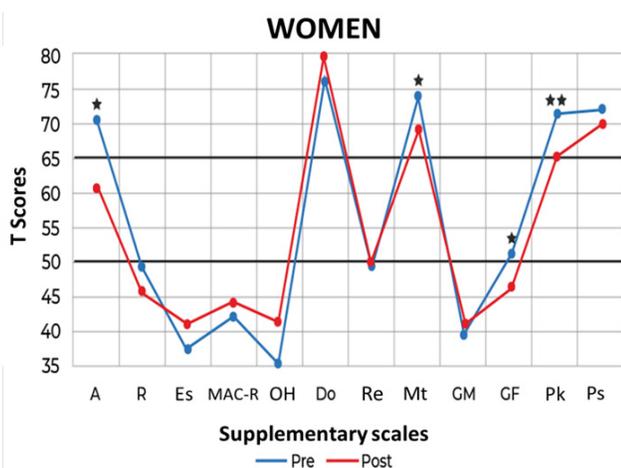
About the Content Scales, women had significant changes in the DEP scales ( $Z = -2.55, p = .011$ ), HEA ( $Z = -2.42, p = .016$ ) and TRT ( $Z = -2.12, p = .034$ ) (Figure 3). While men changed significantly on the LSE scales ( $Z = -2.03, p = .043$ ), BIZ ( $Z = -2.14, p = .033$ ), FAM ( $Z = -3.07, p = .002$ ) and HEA ( $Z = -2.34, p = .019$ ) (Figure 4).



**Figure 3:** Changes from pre to post-treatment in the content scales of women.

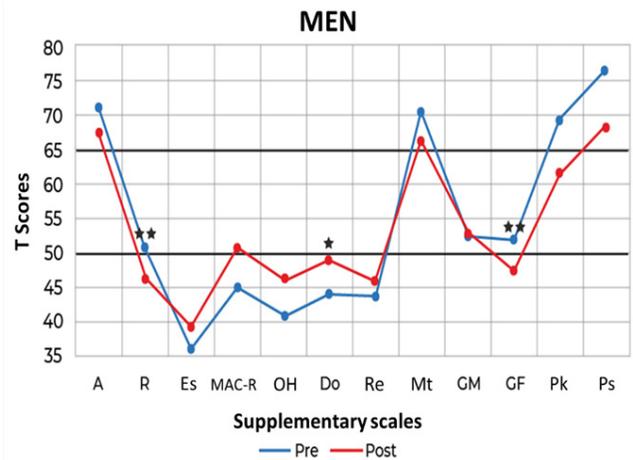


**Figure 4:** Changes from pre to post-treatment in the content scales of men.



**Figure 5:** Changes from pre to post-treatment in the supplementary scales of women.

Finally, in the Supplementary scales, women decreased in scales A ( $Z = -2.10, p = .036$ ), Mt ( $Z = -2.31, p = .021$ ) PK ( $Z = -2.74, p = .006$ ) and GF ( $Z = -2.12, p = .028$ ) (Figure 5). While men decreased in the Do scales ( $Z = -1.97, p = .0499$ ), GF ( $Z = -2.12, p = .034$ ) and R ( $Z = -2.17, p = .030$ ). The MAC-R scale only showed a tendency to improve ( $Z = -1.89, p = .059$ ).



**Figure 6:** Changes from pre to post-treatment in the supplementary scales of men.

### Discussion

The objective of this work was to assess if there were changes in the personality traits of students who attended group psychotherapy for 12 months, analyzing the differences between men and women. Significant and favorable changes were observed in the personality of the participants, but they were not the same between men and women, which highlights the effects of group psychotherapy according to each gender.

It can be affirmed that the MMPI-2 is a valuable instrument to detect changes in the personality traits measured at the beginning and a year after of group therapy, and it is also an instrument with standards for this population. The 42 scales provide an enormous advantage for statistical analysis, but even a more significant benefit for clinical analysis. Although the same scale is applied to all the participants, it is interesting to notice that the aspects that change are somewhat different according to gender.

### Basic Scales

In women, the F Scale decreased, indicating an improvement in the perception that the problems are severe, showing better adaptation; also the tendency to worry about their body functioning and excessive and nonspecific complaints about physical distresses (Hs scale) decreased. Plus, there was a significant change regarding the presence of excessive doubts, unfounded fears, anxiety, and the tendency to blame when situations are adverse (Pt scale).

In contrast, men diminished the feeling of failure and guilt, as well as the critical, pessimistic, and depressive attitude, showing more excellent stability and confidence (D scale). The levels of social shyness, isolation, and social avoidance also decreased, showing more willingness to interact with other people (Scale Si).

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The results in the Basic Scales are similar to those found in 2016 by Cyranka et al. [17], who showed that at the end of the group treatment, an improvement was observed in most of the scales evaluated, demonstrating positive changes in personality. In a similar case, Terlidou [18] found changes in 9 scales, regarding better self-control, better capacity for social adaptation to establish and maintain relationships, reduction in feelings of self-deprecation, improvement of self-esteem, changes in the perception of the environment, decrease of depressive symptoms and symptomatic manifestations and higher ability to maintain relationships.

### **Content Scales**

Women reduced depressive thoughts, the uncertainty towards the future, the unhappiness, the inadequate concept of themselves and the feelings of hopelessness and inner emptiness (DEP Scale); also physical symptoms, and emotions such as concern for health and feeling sicker than other people (HEA) decreased. The feeling of discomfort when dealing with personal problems with other people and the idea that a change is impossible (TRT) also showed a decrease.

In men, the perception of having more physical symptoms than others was modified, worrying less about their health (HEA); the perception of suffering symptoms with higher psychopathological content decreased, as well as having peculiar and strange thoughts (BIZ). They showed more security in front of others and improved their opinion of themselves and their negative attitudes. After the therapy they described themselves with greater security and with a more favorable image considering themselves more capable and trustworthy (LSE); The perception of family difficulties was also modified, describing themselves as more adapted and less hostile in family relationships (FAM).

These results could not be compared to previous research since publications do not report content scales, possibly because they reaffirm the findings obtained in the Basic Scales. However, it seemed important to mention them so that they can be contrasted with later investigations.

### **Supplementary Scales**

Regarding women, the perception of symptoms of anxiety, discomfort, tension, and inefficiency was reduced, becoming more secure, expressive, friendly, and sociable (A). They showed a less overcontrolled behavior and appropriately expressed their feelings of aggression (OH); they favorably modified the professional imbalance by reducing the feeling of being inefficient, pessimistic, and anguished most of the time. Also, a decrease in the GF scale may indicate a reduction in the attachment to stereotyped femininity. The PK scale also decreased, modifying the emotional confusion, anxiety, sleep disorders, guilt and depression, unwanted and disturbing thoughts, lack of emotional control, and feelings of confusion and mistreatment.

Men decreased the tendency to deny their problems, emotiveness, violence and maladjustment feelings, as well as to show themselves

overcontrolled and socially inhibited (R); they also showed higher control over their interpersonal relationships as well as more confidence to appropriately confront personal situations (Do). Also, the perception of having school problems, difficulties with the law as well as alcohol and drugs abuse was modified (GF).

The Supplementary Scales have been oddly investigated and reported. Castlebury F. and Durham T, [25] used the GF and GM scales as measures of psychological well-being, founding that the GM scale can predictive psychological well-being, supporting the masculinity model to explain the relationship between the orientation of the gender role and mental well-being. In this study, in both men and women, the GF scale had a significant change regarding the implications mentioned above.

### **Gender differences**

Based on the results of the basic, content, and supplementary scales, it can be observed a tendency towards improvement in men and women, which are different due to personality traits regarding gender. As it was mentioned before in a study carried out by Gumbiner and Flowers [19], men showed higher scores on antisocial scale, addiction, type A personality, as well as patterns of hostility and behavior problems; however, the results of this study found an improvement in these patterns at the end of the study. Men showed higher stability and confidence, more willing to interact with other people, showed more confidence in front of others, improved their opinion of themselves with greater control over their interpersonal relationships and changed the perception of having school problems, difficulties with the law as well as the abuse of alcohol and drugs. On the other hand, women showed a higher score on neurotic scales (hypochondriasis, depression, and hysteria), paranoia, depression, and somatic complaints. In these results, these patterns also improved, decreasing in women the trend of worrying about their body functioning, and the excessive and nonspecific complaints about physical ailments, they reduced the depressive thoughts, the perception of symptoms of anxiety, discomfort, tension, and inefficiency, becoming more confident, expressive, friendly, and sociable.

Several theories may explain these differences in personality traits according to the gender; for instance, social role models suggest that differences in personality traits, social behaviors, and psychological variables are a result of social and cultural gender roles. Therefore, men and women demonstrate different psychological characteristics and variables that are in line with culturally conditioned gender norms [26].

Therefore, since it is thought that specific male and female roles directly contribute to all the psychological differences observed between men and women, including personality traits, it is expected that when men and women occupy social roles that are more similar, sex differences will tend to decrease or become equal. As a result of this, the social role model approach predicts that gender differences in personality traits will be attenuated in more progressive and gender equality cultures and will be accentuated in more traditional cultures [25]. In contrast, Schmitt

et al. [21] found higher levels of self-esteem in nations with more equal gender roles.

Regarding the use of MMPI-2, Gumbiner and Flowers [19] demonstrated the differences between men and women in the MMPI-2 scales; men showed higher scores on antisocial scale, addiction, and type A personality. Women had higher scores in the Neurotic scales (hypochondriasis, depression and hysteria, paranoia, depression, and somatic complaints).

Another aspect that emerges from these results is the permanence of the positive changes found; however, despite previous clinical experience reinforces the idea of the durability of the observed changes, this would be an interesting topic to assess in further studies.

### Strengths and Limitations

The limitations were that the sample could not be compared to a control group, since it is a population of college students, who have constant changes in their schedule each semester, tests and frequent assignments, which makes it difficult to gather an adequate number of students to attend treatment, in addition to the struggle of leaving patients without a psychotherapeutic treatment for one year. However, no recent studies focus on gender differences or evaluate the changes before and after the psychotherapeutic treatment, such as this study.

Nevertheless, the strength of the study is that it was possible to have comparable results of 12 months in a sample of students in group treatment with the most common disorders among the university population that requests attention in a student treatment center.

### Conclusion

To sum up, as it is observed in the study, group therapy offers an improvement in the patients who receive it, not only because of the apparent benefits of the group technique in changes in personality but also because of the cost-benefit aspect, since more patients can be seen in less time.

Both men and women have more excellent stability, and confidence in themselves with group therapy, since men showed more confidence in front of others, improved the opinion of themselves, with greater control over their interpersonal relationships, and women became more confident, expressive, friendly and sociable, reduced the tendency to worry about their body functioning, diminish anxiety and depressive thoughts.

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