



## Diagnosing and Treating Critical Diabetes and Hypertension Patients: Emotional Well-Being, Concerns, and Overall Health.

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### ABSTRACT:

While hypertension and diabetes are significant killers in Mexico, therapy for these conditions is complicated by factors like food, physical exercise, drug treatment adherence, etc., all of which depend heavily on the patient's actions. Fifty-one patients with hypertension, diabetes, or both participated in a quasi-experimental study examining the impact of cognitive behavioral intervention on these and other elements of illness treatment. Individualized interventions focus on patients' psychological factors that compromise their health and compliance with treatment. Life satisfaction, resiliency, depression, anxiety, blood sugar, blood pressure, and hypotensive medication dosage were all evaluated before and after treatment.

There were statistically and clinically substantial enhancements across the board for most individuals. Improvements were most noticeable in blood sugar, physical activity, risk-behaviour reduction, quality of life, depression, and anxiety. Exhibiting more proactive conduct, cognition, logical analysis, and problem-solving all contributed to the overall improvement. Low-resource country health systems are utilized as a lens through which to examine the results and explore the implications of the intervention type used.

**KEYWORD:** Value of life, Anxiety, Depression, Diabetes, Hypertension, A quasi-experimental before-and-after analysis.

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## INTRODUCTION:

Changes in the epidemiological landscape of the Americas have been ongoing for over twenty years. The rise in the prevalence of non-communicable diseases and the relative decline in infectious diseases are reflected in rising morbidity and mortality rates. As a whole, the increase in non-communicable diseases is responsible for 60% of fatalities today. Additionally vital to the morbidity and death statistics, the World Health Organization. The World Health Organization developed the DALY index (Disability-Adjusted Life Years) to measure the impact or burden of sickness by considering the number of years lost and the quality of those lost [1].

One DALY is comparable to a year of healthy life lost. When looking at DALY years lost due to N.C.D.s in low mortality rates in the Americas, countries like Mexico and the United States stand out as having the highest rates of hypertension and diabetes mellitus. The past decade's significant causes of death in Mexico have been arterial hypertension, cardiovascular disease, vascular accidents, and diabetes mellitus. The aging of the population and the rise in the prevalence of non-communicable diseases contribute to this shift in the epidemiological profile of emerging countries, increasing the demand for health services [2].

From a sociological point of view, illnesses like hypertension and diabetes negatively impact the economy and the quality of people's lives in many ways. Because good health is essential to participating in any endeavor, its absence also affects the lives of those who must deal with its lack, diminishing their quality of life. *Based on the study of optics*. The concepts of quality of life and health psychology originate in behavioral medicine and health promotion, respectively. Increasingly, health is seen as a fundamental variable in the study of quality of life because of how it affects and links other aspects of people's lives, such as employment, independence, social connections, leisure activities, etc.

As a result, there has been a rise in the number of studies aimed at assessing the outcomes of healthcare interventions, with the hopes of better informing clinical decisions and understanding their contexts and impacts. High blood pressure and diabetes are functionally connected and have high comorbidities and low therapeutic adherence, according to the National Health Survey in Mexico results. An estimated 30–60% of patients do not know they have an illness, either because their symptoms are not recognized or because their sickness is asymptomatic. In contrast, it has been found that psychological characteristics, including emotional and instrumental coping and medical social support, can predict metabolic control and therapeutic adherence [3].

One of the main points of these studies is to dissect the components of quality of life and therapeutic adherence, looking at how they relate to the patient's well-being. Our goal is that this information will allow us to develop and, if necessary, execute treatments that will help this population regain or improve their quality of life and adherence to their therapies. To determine whether or not these interventions are successful, dependable recording and observation mechanisms are needed to measure their effects.

The health and happiness of people living with chronic diseases, as well as their loved ones, are profoundly affected by these conditions. A simple diagnosis of it means a decline in

health and the adoption of new habits to accommodate the recommendations of the medical staff. People with diabetes have been observed to experience much greater rates of depression (up to six times higher than the general population), anxiety, low self-esteem, hopelessness, and worthlessness. Anxiety is a factor in hypertension because of the physiological responses it entails. More discomfort, difficulties with sexual functioning, sleep, and lack of self-control have been observed in hypertensives, making them more susceptible to developing an anxiety disorder than those with any other chronic ailment [4].

The pharmacological treatment can induce additional symptoms, such as headaches, dizziness, constipation, lack of energy or sedative effects, nausea, flatulence, and bronchospasms. Given that human behavior is at the heart of this decline, addressing the psychological aspects of the pathological process should help the patient regain or enhance therapeutic adherence, well-being, and quality of life. Therefore, this before-and-after quasi-experimental study aimed to assess a sample population's quality of life and investigate the impact of a cognitive-behavioral intervention on that population's development. The article adheres to the standards set forth by Ramos-Alvarez and Catena.

## **METHODS:**

### ***Participants***

Fifty-one patients were enrolled from the Institute's Family Medicine Unit 67.

According to data compiled by the Mexican Social Security Institute (IMSS) and the Mexico City General Hospital, 17 patients have been identified as hypertensive, 27 as diabetic, and seven as having both conditions. Statistical analyses of study variables measured by inventories are presented as a single group because of the similarity across patients in terms of clinical picture characteristics and intervention components. Given their context-dependency, they are given independently [5].

*A combination of subjective reports and objective measurements of blood glucose levels and blood pressure.* Therefore, both studies include information about patients who also have other conditions. The Kolmogorov-Smirnov test was also computed to make pairwise comparisons between the three distributions. The median test was also calculated to check if there were significant differences between the three groups. A patient's baseline characteristics and the changes brought about by the treatment could be used to classify them into a single statistical group (in the case of the median test, the criterion of significance was established by correction).

Using the Bonferroni correction, we see that the significance level is 0.017. Since there were no statistically significant differences between the groups in any of the dimensions measured by the inventories, the test subjects were deemed interchangeable. These sample sizes are modest enough to ensure that the statistics used are chosen morally. In addition, the two assessments presuppose a non-random selection of subjects, asymmetrical sample sizes, and psychometric features.

Various methods can be used without setting parameters; the totality of the conditions examined here. There were 51 people total, with a mean age of 54.27 (SD = 9.17) and a distribution of 39 women to 12 men. Thirty-one were married, eight were divorced, five were

widowed, three were single, three were separated, and one was in a free union. Employment-wise, 29 worked in the home, seven were either retired or in the workforce, and one worked in maquila [6].

Individual replicates of the clinical effect of the intervention in each patient were assessed using longitudinal and cross-sectional comparisons in a single-case experimental design ( $n = 1$ ). The first concerns variations in patient performance before and after intervention exposure, whereas the second focuses on differences across different patient measures (dependent variables). The registry also contained self-reporting behavioral and psychometric assessments. This study's comparative framework is based on the methodology of the clinical trial in clinical psychology and psychiatry (clinical trial).

Therefore, the objective of such investigations is not to probe the statistical representation of samples for huge populations but to count the number of times an intervention's beneficiaries show the same clinical benefit.

## **INSTRUMENTS:**

The Mexican version of the Quality of Life and Health Inventory was utilized; this instrument has a Cronbach's alpha reliability coefficient of 0.90 and was included in the battery of tools used to assess the health of long-term patients. Moos Coping Scale, Form B, has shown acceptable internal consistency values for the eight forms of coping it covers, ranging from Cronbach's alpha between 0.54 and 0.77 in a preliminary study in Mexico with hypertensive and diabetic patients and a daily self-recording system of medication intake and adherence. The latter was developed with the factors the research has consistently shown as the most relevant for patients with the disorders in question and the areas of well-being most commonly affected by the diseased process [7].

Timely medicine consumption, diet plan compliance, regular exercise, and lack of risky conduct were all components of the adherence record. The latter includes, for diabetics specifically, the need to limit their sugary foods and beverages to specific limits. Caffeine, tobacco use, a diet high in saturated fat and salty foods, frequent intake of processed meats, and other similar risk factors were commonly observed in hypertension individuals. Daily functioning (at work, in school, around the house, etc.), quality of sleep, libido, social engagement, interpersonal relationships, and leisure pursuits were all considered indicators of happiness. The glycemic and B.P. variables were extracted from the patient's medical chart. This information was not always accessible, however, as specific files were either missing or corrupted on the storage device [8].

## **PROCESSES:**

Patients were greeted in the waiting area or referred by their doctors and offered to participate in the study after hearing about the potential health and wellness advantages and the nature of the tasks they would be asked to complete. If necessary, they also signed the informed consent at that time. They were given 15 days to fill out self-registration booklets during which the intervention would begin, during which they were directed to build the battery of

psychological variables. Each participant received the Vital Steps therapeutic adherence protocol, localized for Mexico, and a therapeutic-educational intervention aimed at restoring or improving patients' quality of life following an initial assessment of their therapeutic adherence and quality of life measures [9].

The technique was grounded in the theory and practice of cognitive behavioral therapy for short-term use. The intervention was provided in a one-on-one setting throughout 16 sessions, each of which lasted an hour and a half on average. It used a brief, proactive, focused, and directed approach. Direct questioning, mood monitoring, cognitive recording, idea or belief transformation, instrumental activity scheduling and training, and task assignment and follow-up were the key strategies employed during the intervention.

## RESULTS:

Wilcoxon tests were used to determine the significance of the changes; these tests are beneficial when comparing differences before and after treatment in groups where each subject acts as their control regarding the direction and size of change. The percentage change was determined by dividing the after-test score by the before-test score to identify individual patients' levels of clinical improvement. Statistically, 20% was the threshold for deeming a change to be clinically significant.

The quality of life and resiliency of the sample group throughout time are depicted in Figures 1 and 2. It is demonstrated that cumulative percentages rather than means preserve or restore variability. However, this metric allows for the areas' relative weight to be maintained despite a change in the total number of items or response possibilities. The Wilcoxon test found probabilities of less than 0.001 for the significance of group changes in quality of life across all dimensions. Emotional discharge coping style ( $p = 0.312$ ) and issue-solving coping style ( $p = 0.068$ ) had insignificant t-test computed associations. The significant levels were  $p = 0.002$  for avoidant and  $p = 0.001$  for other affect regulation types. The matched-group t-test revealed a significance level of  $p = 0.001$  for the remaining coping mechanisms related to the quality of life, depression, and anxiety [10].

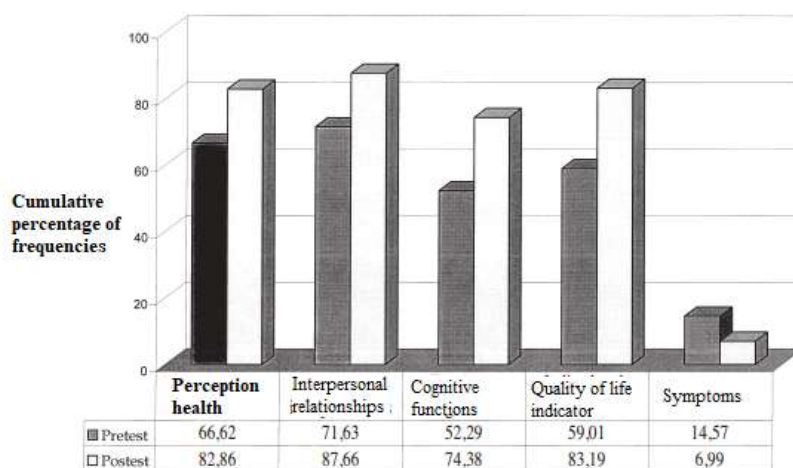


Figure 1: The solution's impact on participants' quality of life.

The results of the evaluations of the intervention's effects on quality of life are displayed in Figure 1. The proportion of improvement (gain scores) ranged from 24.18% for the overall indicator of the quality of life to 16.03% for interpersonal connections to 7.58% for the perception of symptoms. The latter showed a minor initial deterioration, and the variation in this area is equivalent to a decrease of more than half.

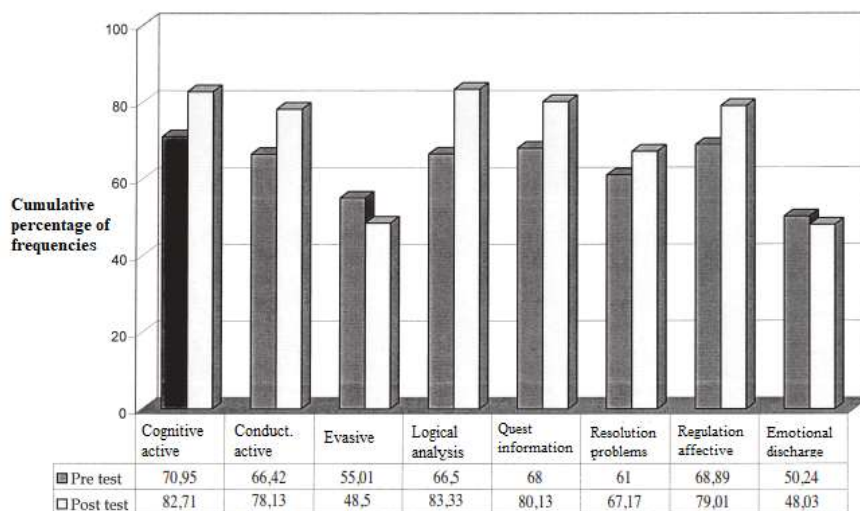


Figure 2: The results of the coping intervention are depicted.

Adaptive styles, including active cognitive and behavioral coping, information seeking, and affect regulation, increased by more than 10% following the intervention, as seen in Figure 2. As a result, people's use of maladaptive strategies (such as acting impulsively or bottling up their feelings) decreased. Wilcoxon and t-tests for paired groups found significant differences between the active cognitive, active behavioral, logical analysis, and information-seeking groups, with probabilities of  $p < 0.001$ . Results from the Wilcoxon signed-rank test indicated that changes in avoidance and affect regulation styles were statistically significant ( $p < 0.001$ ), while differences in problem-solving and emotional discharge styles were not ( $p = 0.065$  and  $p = 0.374$  for the Wilcoxon test and  $p = 0.068$  and  $p = 0.312$  for the t-test, respectively) [11].

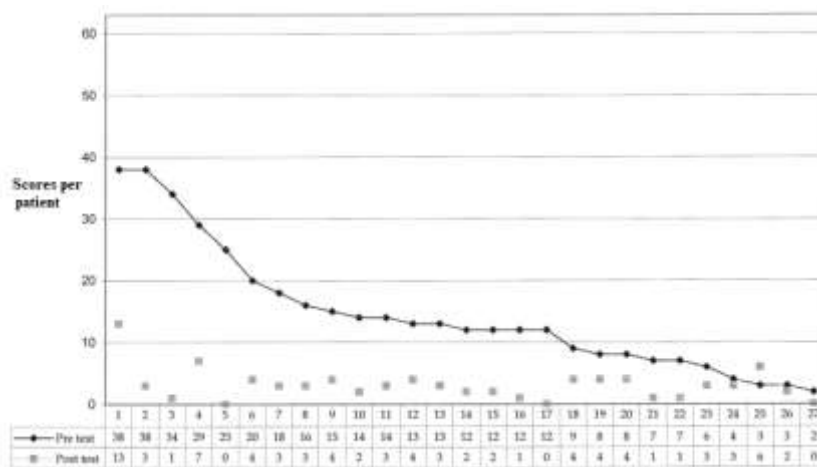


Figure 3: The intervention's impact on patients' levels of Depression (Beck Inventory).

As seen in Figure 3, there is a wide range of depression scores as determined by Beck's inventory, with the most excellent possible score being represented by the abscissa (63 points). In most cases, researchers saw significant progress from participants ( $p < 0.001$  in Wilcoxon and t-tests). Three participants classified as having severe depression at the outset were reclassified as having mild or no depression. Four people classified as moderately depressed at the study's start had their depression levels reduced to clinically insignificant. The minimum score on the Beck scale is zero, the lowest possible score on any given item. Twenty-four respondents did not respond to the full scale. Hence, they were disqualified from the analysis of this variable [12].

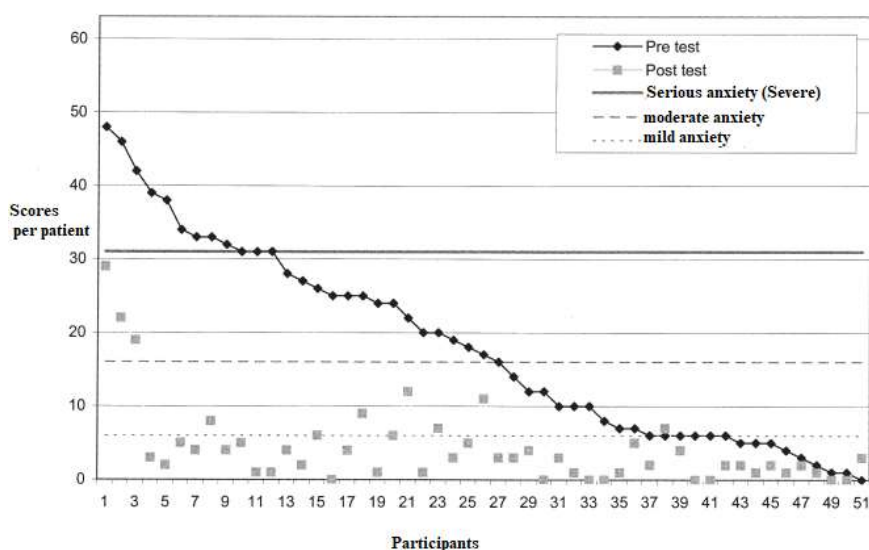


Figure 4: for a visual representation of the intervention's reduced anxiety results.

Implications of the intervention on the Beck Anxiety Scale are depicted in Figure 4. When the intervention was over, 3 of the 12 patients were diagnosed as having moderate anxiety, one as having mild anxiety, and eight as having minimum pressure, compared to the original classification of severe anxiety ( $>31$  points). Six of the fifteen patients whose anxiety levels started in the moderate range (between 30 and 16 points) reached mild capacity, and nine went through minimal coverage. Those that started with moderate (15-6 points) or low (5 points) levels saw minor improvements. Only one person who reported mild anxiety at the outset stayed in that category at the end; the others dropped to the next lowest level [13].

The intervention's impact on physiological variables, such as glycemia in the case of diabetics and blood pressure and the hypotensive dose required for its control in hypertensive patients, is depicted in Figure 5 and Table 1. This information was culled from actual patient files; however, not all of it could be verified or was full. The matched-group t-test and the Wilcoxon test were used to determine if there was a statistically significant difference between groups in these metrics after the intervention. As assessed by the common enzymatic approach at their affiliated clinics, postoperative changes in glucose levels are seen in Figure 5 below. The information is arranged in order of how well patients did before receiving treatment. None of the post-test glucose readings was higher than 200 mL/dL, and the most significant improvements were shown in people whose readings were over 250 mL/dL. Case 25 slightly

improved post-test results, but none of his readings were higher than 150 mL/dL. The t-test and the Wilcoxon test indicated that the differences were statistically significant ( $p < 0.001$ ).

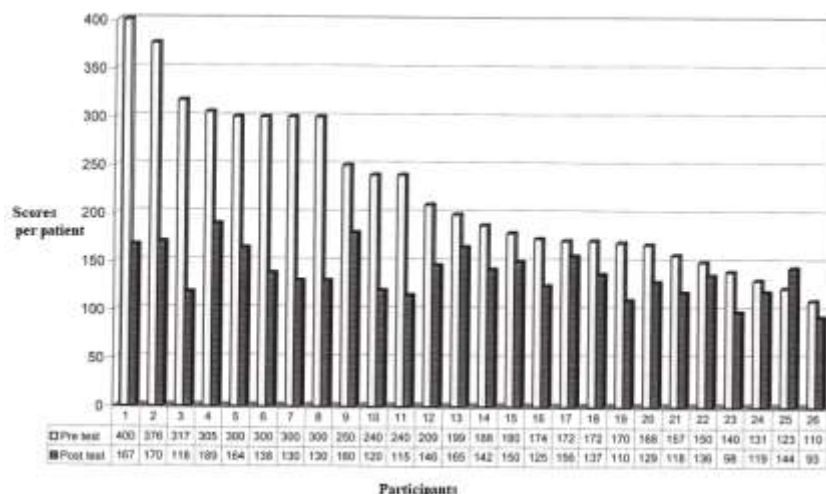


Figure 5: Changes in blood sugar levels resulted from the treatment (ml/dl). People who have diabetes.

**Table 1: Blood pressure and the amount of hypotensive medication used before and after intervention are shown**

| Patient | pre systolic pressure test (mm. Hg.) | systolic pressure post-test (mm. Hg.) | diastolic pressure pre-test (mm. Hg.) | diastolic pressure post-test (mm. Hg.) | hypotensive dose pre-test (mg.) | hypotensive dose post-test (mg.) |
|---------|--------------------------------------|---------------------------------------|---------------------------------------|--|---------------------------------|----------------------------------|
| 1       | 150                                  | 200                                   | 100                                   | 90                                     | 75                              | 265                              |
| 2       | 150                                  | 120                                   | 80                                    | 90                                     | 100                             | 25                               |
| 3       | 140                                  | 150                                   | 90                                    | 80                                     | 50                              | 50                               |
| 4       | 140                                  | 140                                   | 80                                    | 90                                     | 0                               | 0                                |
| 5       | 140                                  | 120                                   | 90                                    | 90                                     | 50                              | 50                               |
| 6       | 150                                  | 130                                   | 80                                    | 90                                     | 37,5                            | 12.5                             |
| 7       | 140                                  | 115                                   | 80                                    | 80                                     | 50                              | 50                               |
| 8       | 140                                  | 100                                   | 60                                    | 70                                     | 20                              | 10                               |
| 9       | 130                                  | 140                                   | 80                                    | 80                                     | 75                              | 50                               |
| 10      | 130                                  | 130                                   | 90                                    | 90                                     | 190                             | 265                              |
| 11      | 130                                  | 130                                   | 80                                    | 80                                     | 5                               | 95                               |
| 12      | 130                                  | 120                                   | 70                                    | 80                                     | 50                              | 10                               |
| 13      | 130                                  | 120                                   | 100                                   | 80                                     | 360                             | 50                               |
| 14      | 130                                  | 110                                   | 80                                    | 60                                     | 30                              | 265                              |
| 15      | 130                                  | 110                                   | 80                                    | 70                                     | 95                              | 95                               |
| 16      | 110                                  | 140                                   | 80                                    | 90                                     | 50                              | 50                               |
| 17      | 110                                  | 110                                   | 80                                    | 70                                     | 150                             | 25                               |

Most of the sound effects on blood pressure readings ( $n = 17$ ) were shown in the systolic readings, with nine individuals showing a decrease, 4 showing no change, and 4 showing an



increase. In response to these shifts, and per their doctors' orders, all patients either kept the same (in seven cases) or decreased (in eight points) the number of antihypertensives they were taking to maintain a healthy blood pressure level. In example four, the comparison could not be made since the medicine was switched out for another one; the remaining findings all pertain to adjustments in the dosage of the same hypertension treatment [14].

Diastolic blood pressure findings were more variable, with five individuals experiencing a decrease, 5 experiencing no change, and seven experiencing a rise. Only one of the latter had a diastolic B.P. that was too high. All readings were within or under the range of values (as stated by some cases or authors) of 140 mm. Hg for systolic blood pressure and 90 mm.Hg for diastolic blood pressure (European Society of Hypertension and European Society of Cardiology, 2003; Oviedo, Espinosa, Olivares, Reyes, & Trejo, 2003). No statistically significant differences between systolic and diastolic blood pressures ( $p = 0.31$  in  $t$  and  $p = 0.23$  in Wilcoxon) or between pharmacological doses ( $p = 0.355$  in  $t$  and  $p = 0.092$  in Wilcoxon).

**Table 2: Patients who showed statistically significant improvement in clinical outcomes as measured by standardized psychological instruments are summarized**

| scale                       | n  | Target Percent Change | Without changes | change percentage positive*<br>negative** |
|-----------------------------|----|-----------------------|-----------------|---|
| Depression                  | 27 | 16                    | 0               | 0   |
| Anxiety                     | 51 | 29                    | 0               | 0   |
| the overall quality of life | 51 | 17                    | 0               | 0   |
| cognitive functions         | 51 | 32                    | 5               | 6   |
| Health Perception           | 51 | 29                    | 1               | 0   |
| Relationships               | 51 | 20                    | 2               | 0   |
| Symptoms                    | 51 | 13                    | 11              | 0   |
| general indicator           | 51 | 34                    | 13              | 3   |
| full coping                 | 50 | 20                    | 2               | 0   |
| Active cognitive coping     | 50 | 22                    | 2               | 1   |

|                                 |    |    |    |    |
|---------------------------------|----|----|----|----|
| <b>Active behavioral coping</b> | 50 | 24 | 1  | 2  |
| <b>avoidant coping</b>          | 50 | 18 | 7  | 4  |
| <b>logical analysis</b>         | 50 | 26 | 10 | 3  |
| <b>information search</b>       | 50 | 23 | 2  | 3  |
| <b>Problem resolution</b>       | 50 | 20 | 11 | 10 |
| <b>affect regulation</b>        | 50 | 18 | 5  | 7  |
| <b>emotional discharge</b>      | 50 | 14 | 16 | 7  |

The O.P.C. formula was used for an objective examination of clinical. A majority of participants (over 50%) showed positive PCO across a variety of measures, including those for depression (16 participants), general indicator of the quality of life (34 participants), cognition (32 participants), perception of health (29 participants), anxiety (29 participants), and logical analysis coping style (29 participants) (26 participants). Emotional discharge coping style (16 participants) was a general indicator of the quality of life (13 participants), and symptom and issue resolution coping style indicated the most significant number of participants without modifications (PCO = 0). (11 participants each). Almost no cases demonstrated clinically objective decline (PCO 20%); however, problem-solving coping methods (10 individuals), affect regulation (in 7 participants), and emotional release (in 7 participants) indicated the most significant decline (see Tables 2 and 3).

| <b>Table 3: The intervention's effects on therapeutic adherence and well-being are tabulated</b> |                              |                   |                    |                    |                     |                   |                    |                    |
|--|------------------------------|-------------------|--------------------|--------------------|---------------------|-------------------|--------------------|--------------------|
|  | <b>Diabetics</b>             |                   |                    |                    | <b>Hypertensive</b> |                   |                    |                    |
|  | <b>Therapeutic adherence</b> |                   |                    |                    |                     |                   |                    |                    |
|  | <b>n</b>                     | <b>% Pre test</b> | <b>% Post-test</b> | <b>% of profit</b> | <b>n</b>            | <b>% Pre test</b> | <b>% Post-test</b> | <b>% of profit</b> |
| <b>taking medication</b>   | 16                           | 93,63             | 89,89              | -3,78              | 10                  | 87,88             | 91,56              | 3,68               |
| <b>Diet</b>  | 16                           | 86,35             | 87,76              | 1,41               | 10                  | 80,31             | 89,38              | 9,07               |

|                        |    |       |       |       |    |       |       |       |
|------------------------|----|-------|-------|-------|----|-------|-------|-------|
| <b>Exercise</b>        | 16 | 53,21 | 71,35 | 18,14 | 10 | 45,50 | 66,44 | 20,94 |
| <b>Risk behaviours</b> | 16 | 20,08 | 14,54 | 5,54  | 10 | 86,00 | 57,00 | 29,00 |
| <b>Wellness</b>        |    |       |       |       |    |       |       |       |
| <b>Performance</b>     | 16 | 91,89 | 89,85 | -2,04 | 10 | 85,69 | 90,88 | 5,19  |
| <b>dream</b>           | 16 | 79,15 | 89,14 | 9,99  | 10 | 75,40 | 84,69 | 10,19 |
| <b>activity</b>        | 16 | 9,27  | 6,56  | -2,71 | 10 | 6,56  | 12,06 | 5,5   |
| <b>Contact</b>         | 16 | 71,62 | 79,55 | 7,93  | 10 | 42,31 | 62,31 | 20,0  |
| <b>Activities</b>      | 16 | 86,33 | 88,13 | 1,80  | 10 | 89,00 | 87,06 | -1,94 |

Despite being significantly higher than pre-test levels, the percentage of people with diabetes who take their medication on time and eat a healthy diet has not changed considerably. Increases in physical activity (18.14%), restful sleep (9.99%), and interpersonal contact (7.09%) were the most significant changes in adherence to medication. Avoidance of risky behaviors increased by 29%, while exercise levels increased by 20.94 percent among hypertensive patients. Medication and diet are vital for those with diabetes.

The most significant improvements in terms of well-being were in social connection (20%) and rejuvenating sleep (10.19%).

## DISCUSSION:

The participants in this study were chronic pain sufferers, and researchers wanted to see how giving them personalized cognitive behavioral tests affected their well-being, anxiety, depression, coping mechanisms, and therapy adherence. In most cases, employee actions appear to have improved the status of the addressed variables. Relevant physiological factors, such as glycemic index and blood pressure, showed similar improvements.

The results are promising for their clinical relevance and likely cost-effectiveness in the context of the conditions in most public health facilities in countries like Mexico. We can assume with some degree of certainty that the data offer a reasonable level of confidence that the changes were related to the intended interventions because of the comparison scheme utilized and the different expedients adopted in the procedures. To give just one example, conventional techniques were used in every method when teaching therapists how to gather data. The results are further strengthened by the fact that both psychological and physiological variables are subject to synchronous fluctuations, as documented in medical record institutions [15].

A more significant proportion of patients benefited from this intervention than from interventions with fewer sessions or that considered only isolated treatment components like relaxation or only psychoeducation, even though this intervention required a relatively large amount of effort because it consisted of individual treatment sessions lasting an average of ten. Six sessions. Six of sixty-eight participants in a previous trial of a six-session educational intervention for hypertensives showed an objective percentage of meaningful change, while twenty-two of fifty-one participants in the current study did so.

Although the components of the intervention were the same for all patients, they were administered and adapted to the specific needs of each case, also taking into account the time

necessary for the patient to master the skills and generalize them to his everyday environment, which may account for a large portion of the effect's magnitude. Sixteen sessions were given on average, while as few as five and as many as thirty were needed in some situations. They were not significantly more significant than often expected during therapy sessions.

Buildings of this type are often private and out of the reach of the general public. For those with severe anxiety, the most significant improvements were shown in the anxiety indices (score from 31 to 63). However, subjects with initial Beck Inventory scores above 40 did not demonstrate such significant improvements, suggesting the need for additional intervention, such as biofeedback or pharmaceutical treatment. In the depression scales, it was also noticed that the patients with the highest indices in the initial measurement showed the most significant gains.

Before and after treatment, people with diabetes showed markedly improved glycemetic indices despite only modest changes in dietary adaptation (a gain of 1.41%) and a minor decline in diet adherence and punctual intake of medicines (a change of -3.78%). The benefits in this group can be explained by a combination of reduced risky behaviors (gain of 5.54%), such as drinking sugary drinks or eating sugary meals and increased activity (growth of 18.14%). While no statistically significant changes were found in the blood pressure readings of hypertensive individuals, the majority (9 of 17 participants) did indicate alterations ranging from 10 to 40 mm. hg. in systolic pressure and between 10 and 20 mm. hg. in diastolic pressure (6 participants).

Except for the initial case, where a rise of 50 mm Hg was recorded, the blood pressure values were all within the normal range. These details are associated with a patient who has many chronic conditions and whose medical record includes information about environmental difficulties.

These findings represent a patient with comorbidities whose chart documents the onset of a hypertensive crisis and potential renal failure. He also sought more than anyone else a substantial increase in the dose used to decrease blood pressure (190 mg; the other case where an increase was observed was 5 mg). Dose reductions were seen in 7 individuals (between 10 and 125 mg. hypotensive decline, which represented less than half of the initial dose in four cases). Only eight patients could maintain their original dosage, and one point was excluded from our analysis due to a switch in medication. Significant and statistically significant changes were made in this group's diet (9.07% increase), physical activity (20.94% increase), and reduction in harmful behaviors like salt and fat intake (29% decrease). The most significant improvements in measures of everyday well-being, such as social contact over 30 mg. (20% CV) and peaceful sleep (10.19% gain), were also seen in this cohort [16].

Some patients refused to fill out the booklets daily or did not fill them out sufficiently despite frequent guidance and corrections from the therapists, making it impossible to acquire most of the self-reports of medication adherence and well-being. Some forms had to be thrown out because they were recorded incorrectly, even though they had been filled out with the help of a family member who lived with the patient and worked on the booklet simultaneously but separately. This methodological precaution was sought out in all participants, but in some cases, family participation was unavailable. Finally, we only included auto-registers that were sufficiently filled up or had good dependability (more than 80% agreement in the register).

## CONCLUSION:

Changes were observed in every critical psychological and physiological characteristic. The examination of the follow-ups three and six months after the conclusion of the intervention, which is presently continuing, would be relevant to examine in a second phase, as preliminary findings suggest that these improvements are maintained and even increased.

The financial impact of these shifts on the healthcare industry, in terms of the cost of complications and non-adherence, is difficult to predict. Reductions in measures of anxiety and depression, as well as gains in quality of life and adaptive coping mechanisms, may all carry equal weight. However, these modifications are part of complete patient care, and psychological therapy in healthcare facilities can no longer be viewed as a luxury. An integral part of making sure the adjustments recommended by the medical team are implemented is a system in place to track progress and adjust as needed.

Careful and precise attention and monitoring of all those elements that can limit these patients' greater well-being in their specific conditions is required, not just instructions and information. The Family Medicine Unit also saw more clinicians and patients actively engaged in their care. In contrast, the Polyclinic's patients showed less engagement, mainly because many had relocated from the provinces or were in financially unstable situations that precluded them from attending the weekly meetings. On the other hand, patients in family medicine clinics are typically more local, allowing for more preventative care. Special thanks to all the doctors, nurses, and social workers who made this study possible.

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