Original Research

A Case Study Of Intensive And Short-Term Psychodynamic Therapy On Reducing The Symptoms Of Persistent Depressive Disorder In Women In Isfahan

Mostafa Aghaei¹, Yousef Gorji^{2*}

- 1. Master of Clinical-Family Psychology, Khomeinishahr Azad University, Isfahan, Iran.
- 2. Assistant professor of Khomeini shar Azad University, Isfahan, Iran gorji@iakhsh.ac.ir, orcid no: https://orcid.org/0000-0001-7596-9906

*Corresponding Author: Yousef Gorji. Assistant professor of Khomeini shar Azad University, Isfahan, Iran. Email: gorji@iakhsh.ac.ir, orcid no: https://orcid.org/0000-0001-7596-9906

Abstract

Background: Persistent depressive disorder is very common in women. In this study, the effectiveness of short-term scanning psychotherapy was evaluated and positive results were obtained from the effectiveness of this treatment.

Method: The baseline method was used for five subjects. Initially, the scores of depressions in the three baseline positions, intervention and tracking of each subject are described on a descriptive drawing and interpretation chart; The stability of the scores in terms of mean line, middle line and trend line. has been investigated. Then, in order to make inferential interpretations and conclusions from these graphs, in-situ, out-of-situ analysis and changes in similar situations of each graph are performed and for each subject, the research hypotheses are analyzed.

In this study, a single case method (A-B-A) was used to analyze the information. Finally, at the end of each session, Beck test was taken again to determine the effectiveness of short-term intensive psychotherapy on the improvement of their persistent depressive disorder. Tests were taken from patients at the end of each session.

Results: This study was also analyzed based on visual analysis, trend index and stability index, percentage of overlapping data and percentage of overlapping data.

conclusion: The results show that short-term dynamic psychotherapy is effective in treating persistent depressive disorder in women in Isfahan.

Keywords: Short-term and intensive scanning psychotherapy, permanent depressive disorder.

Submitted: 11 November 2021, Revised: 13 February 2021, Accepted: 22 April 2021

Introduction

dysthymia is a mood disorder with a morbid nature derived from Greek roots. The term depression, which means boredom, was introduced in 1980 [1]. Persistent depressive disorder differentiated from major depressive disorder by the fact that sufferers complain of chronic depression. So, most cases are early onset. This disorder affects 3 to 5% of the general population and is seen in half to one third of those referred to psychiatric clinics [2]. Every human being may experience depression at different ages. This disease can affect the physical, emotional, behavioral and mental health of human beings [3].

An important feature of persistent depression is the creation of chronic depression for most of the day, and most days occur for at least 2 years [4]. The family and work problems of these people are more and they have more severe problems in interpersonal relationships and feel inadequate in most of their efforts [5].

These people Due to spontaneous thoughts, dysfunctional attitudes, low self-esteem, low level of adaptation, have a bad prognosis and low life satisfaction.

According to the World Health Organization, 121 million people worldwide suffer from depression and it is predicted that in the coming years it will be the second most common disease that will affect the world's population and will account for almost 11% of all diseases. [6].

However, this disorder is not diagnosed in most cases. Only about 50% of patients with depression receive a diagnosis of depression, and only half receive appropriate treatment. Among short-term therapies, short-term intensive psychotherapy, rooted psychoanalytic theory, claims to cause profound changes in a wide range of psychological disorders [7]. Intensive and short-term dynamic psychotherapy has been developed by Dovanloo. (Farhadi et al., 1398). This treatment helps the patient to solve his problems based on how he deals with emotions or conflicts. Interventions in this perspective are specifically aimed at relieving anxiety, depression, personality disorders, and physical complaints that are the result of a reaction to emotional stress [7].

From a psychodynamic perspective, other therapies focus on a specific area, such as cognition, behavior, or physical aspects, and do not examine in-depth and comprehensive abnormalities. Scientific therapies and theoretical perspectives on depression have emerged in this area since the late last century. The perspective of psychodynamics or psychoanalysis is distinguished from other perspectives by in-depth studies of the psychological system and the search for unconscious causes of disorders. To motivate the patient to cooperate, the psychoanalyst hears, experiences, and creates a different emotional atmosphere.

In this way, the patient is exposed to a different and growing emotional experience and learns new skills in the form of this empathetic relationship. Among the psychodynamic approaches, short-term and intensive scan psychotherapy is one of these therapies that emphasizes the communication space between the patient and the therapist and guides a pattern of communication with the focus of transmission and considers it as a highway to enter the unconscious. [8]

Methods

This chapter is dedicated to describing the research method. For this purpose, first the statistical research design, population, research sample and sampling method will be Also, tools considered. research and psychometric specifications of the tools and methods of implementation will be presented in the following, and finally, statistical methods of analyzing research results and ethical considerations will be discussed.

The statistical population in this study included all women with chronic depressive disorder in Isfahan in 2020. The statistical sample of this study includes 5 women who were selected voluntarily, diagnosed with chronic depressive disorder based on a clinical interview with a psychologist and scored higher than 19 in the second edition of the Beck questionnaire.

Results

To test the hypothesis that "the process of short intensive psychodynamic treatment has an effect on reducing depression in women with permanent depressive disorder in Isfahan.", In-situ and out-of-situ analysis of depression scores is performed separately for participants.

Participant number one:

A- In-situ analysis of Participant number one

Table 1 shows the initial calculations of the in-situ analysis of mean and median stability. For position A or baseline and follow-up, all data is in the mean and the median of Stability bar. In position B or intervention, 55% of the data is in the mean of Stability bar and 55% of the data is in the median of Stability bar. This value is less than 80%. Therefore, the intervention position does not have the mean and the median of Stability bar.

In addition, according to Figure 1, which includes the data graph, the mean line of each position and the mean of Stability bar, the instability of the intervention position is observed in terms of the mean. This instability in the intervention position is also seen in Figure 2, which includes the data chart, the median line, and the median stability bar.

Figure 3 shows the trend in the intervention path, the downward decrease in the depression score due to the intensive psychodynamic treatment process shows that all the data are in the trend stability bar and have not deviated from the decreasing path.

Table 2 investigates the relative and absolute level change within a situation for change. In the intervention situation, both relative and absolute level changes are observed to reduce the depression score for the first participant.

In the intervention situation, a decrease of ten units in the median of the second half compared to the median of the first half and a decrease of seventeen units from the end of the intervention compared to the beginning of the intervention show the effectiveness of short intensive psychodynamic treatment on reducing depression in the first participant with chronic depression.

B- Out-of-situ analysis of Participant number one

According to the results of Table 3, the relative level of the first-person depression score has decreased by 4.5 units and the absolute level has decreased by one unit. On the other hand, according to the amount of PND obtained, 100% of the intervention scores that are not within the baseline range.

Thus, the effectiveness of the intensive psychotherapy treatment process on the depression of the first participant is shown to be quite effective, and the first hypothesis is confirmed for the first participant.

The percentage reduction of scores compared to the baseline was 48.36% and compared to the average of the intervention was 32.6%.

Participant number two:

A- In-situ analysis of Participant number two

Based on Table 3, according to the data level in position A and B and follow-up, the results are described in position A and stable follow-up. But in intervention position B, it puts 55% of the data in the mean stability bar and similarly, it puts 55% of the data in the median stability bar, which the data are not considered stable in terms of mean and

median.

The instability of the data in the intervention position is clearly evident in Figures 4-5 and 4-6 related to the mean and the median stability bar of the second participant; Because almost half of the data is not in the mean and the median stability bar.

The data level in the intervention position is described as trend stable according to Figure 5; Because only one point is outside the trend bar (result of the fourth intervention).

Table 5 shows the results of the absolute and relative level change calculations within each situation.

According to Table 5, there is no significant change in the position of the baseline; Because there is only one data in the baseline stage. But in the intervention stage, there is a change in the relative level of 9.5 and a change in the absolute level of 15, which indicates the effect of the treatment process on reducing the depression of the second participant.

B- Out-of-situ analysis of Participant number two

The information in Table 6 presents the results of the out-of-situ analysis calculations of the second participant as a result of the treatment process.

According to Table 6, from the baseline position to the intervention position, 3.5 units of relative level reduction and one unit of absolute level reduction have been created. According to the PND value, 100% of the intervention scores are outside the baseline, which shows the effectiveness of the treatment process in reducing the depression of the second participant. Therefore, the hypothesis of the effectiveness of the short intensive psychotherapy treatment process on reducing depression in women persistent with depressive disorder in Isfahan is also confirmed for the second participant. The recovery rate of the second participant is 42% compared to the mean of the intervention stage and 30% compared to the mean baseline.

Participant number three:

A- In-situ analysis of Participant number three

Table 7 shows the calculations for the mean and the median stability bars in the three baseline, intervention and tracking steps for the third participant.

According to Table 7, the two baseline and tracking positions have both mean and median stability; Because all position data is placed in the mean and the median stability bar of the relevant position. Regarding the intervention position, 44% of the scores are in the median stability bar and 56% of the scores are in the mean stability bar. So, the intervention position does not have mean and median stability; Because the percentage of scores in the stability bar is less than 80%. Charts 7 and 8 show the depression scores of the third participant, which are outside the mean and the median stability bars.

Figure 9 shows the trend of decreasing the depression score in the third participant and its stability bar. All depression scores in the intervention phase are placed in the trend stabilization bar, which indicates a uniform trend of decreasing depression score in the third participant.

Table 8 shows the results of the calculations related to the in-situ analysis of the third participant.

According to Table 8 for the third participant, in the intervention position, relative level change, 9 points and absolute level change, 12 points were obtained, which shows the effectiveness of the treatment process in reducing the depression score of the third participant.

B- Out-of-situ analysis of Participant number three

According to the results of Table 9, the difference between the mean value of the first

half of the intervention and the baseline score of the third person is 4.5 units and the difference between the first score after the intervention and the last baseline score are two units to reduce the depression score. According to the PND value obtained, 100% of the scores in the intervention stage are outside the baseline. Therefore, it shows the effectiveness of the treatment process on the depression of the third participant and the hypothesis for the third participant is According confirmed. to the recovery percentage of 50.5% and 33.6% compared to the mean scores of the intervention and baseline, the changes in depression in the third participant are significant.

Participant number four:

A- In-situ analysis of Participant number four

Table 10 shows the mean and median stability bars and the data range for the fourth participant.

According to Table 10, there is a baseline and tracking line position, with stable boundaries; Because all the information is trapped in the relevant bar. In the intervention position, 67 results have been found to be in the mean and median stability bar because it reduces 67% from 80%, not considered as a symbol using size and median.

Figures 10 and 11 show the mean and the median stability bars and the position of the fourth participant's depression scores in the intervention and tracking stages. In both graphs, almost half of the scores do not fall within the range of the stability bar.

Figure 12 shows the position of the fourth participant's depression scores on the trend line stability bar.

Figure 12: Depression scores of the fourth participant based on the trend bar.

According to Figure 12, all the depression scores of the fourth participant are placed in the stability bar of the trend line and maintain

their downward trend with a gentle slope.

Table 11 shows the change in the absolute and relative levels of the fourth participant within the baseline position and the intervention.

According to Table 11, the change in the relative level of the fourth participant in the intervention position is 7 units decrease and the change in its absolute level is equal to 13 units in the direction of decrease.

B- Out-of-situ analysis of Participant number four

The results of the calculations related to the inter-positional analysis of the fourth participant are shown in Table 4-14.

Table 12. Out-of-situ visual analysis variables for the fourth participant's depression scores.

100% of depression scores have intervention outside the baseline, according to the results of Table 14. Therefore, it shows the effectiveness of the treatment process on the depression of the fourth participant and the research hypothesis for the fourth participant is confirmed.

According to the recovery rate of 32% and 47.3% compared to the mean of intervention and baseline, the effectiveness of the treatment process on depression is observed for the fourth participant.

Participant number five:

A- In-situ analysis of Participant number five

Table 13 presents the results of the analysis calculations within each situation.

According to the results of Table 13, 33% of the participants' depression scores are in the median stability bar and 33% of the scores are in the mean stability bar. Given that both numbers are less than 80%, stable and moderate depression scores are not considered.

Charts 13 and 14 show the position of the fifth participant's depression scores relative to the mean line and the median line and the mean and the median stability bars.

Figures 13 and 14 show that although different

trend line intervals are drawn for the mean and the median, in both cases, 6 of 9 scores of Participant number five are not in the mean and the median stability bars.

Figure 15 shows the depression scores of the fifth participant along with the trend line and stabilization bar. The trend in Figure 15 is generally declining; But small fluctuations are also observed.

Table 14 shows the results of absolute and relative level changes within baseline and intervention situations. The change in the relative level of the depression score in the intervention position is 9.5 and the change in the absolute level is 18 units, which is a significant change.

B- Out-of-situ analysis of Participant number five

Table 15 shows the results of the calculations of out-of-position changes.

According to the results of Table 15, the relative level change of the mean of the fifth person depression score has decreased by 4.5 points, which indicates the effectiveness of the treatment process. The obtained PND is 89%, which shows the relatively effectiveness of the psychotherapy short intensive process on reducing the fifth participant 's depression, and the hypothesis of the effectiveness of the treatment process on reducing depression in women with persistent depressive disorder is confirmed for the fifth participant. MPI and MPR values show the percentage reduction of scores relative to baseline position and intervention, respectively, which is equal to 24 and 20%.

Discussion

The aim of this study was to evaluate the effectiveness of short-term and intensive scanning psychotherapy on reducing the symptoms of persistent depressive disorder in women in Isfahan. The results showed that short-term dynamic psychotherapy reduces the symptoms of permanent depressive disorder. The results of the follow-up period also

showed that this effect is still stable after two months of treatment.

Case study: According to the findings of the study, which was obtained from the Beck Depression Inventory, Second Edition, in the first test as a criterion for baseline, the patient received a higher score than the incision line, which is in the severe range. However, after the treatment interventions, as the research findings show, the person's score decreased below the incision line. The results of the tests taken from the first case study show the confirmation of the hypothesis and the effectiveness short-term intensive of psychotherapy intervention on reducing the symptoms of permanent depressive disorder. Therefore, with the reasoned results presented in the fourth chapter about the first subject, our hypothesis in this study is confirmed. Which is consistent with the results of researchers Ahmadi (1396)[6] and Hosseini Fard (1390)[1].

Case 2: According to the findings of the study, which we obtained from the Beck Depression Inventory, Second Edition, in the first test as a criterion for baseline, the patient scored higher than the incision line, which is in the severe However, after the range. treatment interventions, as the research findings show, the person's score decreased below the incision line. The results of the tests obtained from the second case study confirm the hypothesis and the effectiveness of short-term intensive psychotherapy intervention reducing the symptoms of chronic depressive disorder. Therefore, with the reasoned results presented in the fourth chapter about the second subject, our hypothesis in this study is confirmed. It is consistent with the results of researchers Shariat et al (1396)[5].

Case Study 3: According to the findings of the study that we obtained from the Beck Depression Inventory, Second Edition, in the first test as a criterion for baseline, the patient received a higher score than the incision line,

which is in the average range. However, after the treatment interventions, as the research findings show, the person's score decreased below the incision line.

The results of the tests obtained from the third case study show the confirmation of the hypothesis and the effectiveness of short-term intensive psychotherapy intervention on reducing the symptoms of chronic depressive disorder. It is consistent with the results of researchers Ahmadi (1396)[7].

Case 4: According to the findings of the study, which we obtained from the Beck Depression Inventory, Second Edition, in the first test as a criterion for baseline, the patient received a higher score than the incision line. Which is in the middle range. However, after the treatment interventions, as the research findings show, the person's score decreased below the incision line. The results of the tests obtained the third case study show confirmation of the hypothesis and the effectiveness of short-term intensive psychotherapy intervention on reducing the symptoms of chronic depressive disorder. Chronic persistent depression and family and work problems cause more intense stress and personal problems, and even in women make them feel inadequate in most of their efforts [9].

Case 5: According to the findings of the study, which we obtained from the Beck Depression Inventory, Second Edition, in the first test as a criterion for baseline, the patient received a higher score than the incision line. Which is in the extreme range. However, after the treatment interventions, as the research findings show, the person's score decreased below the incision line. The results of the tests obtained from the fifth case study confirm the hypothesis and the effectiveness of short-term intensive psychotherapy intervention on reducing the symptoms of chronic depressive disorder.

conclusion:

The mechanism of effectiveness of short-term scanning psychology is what caused 5 studies to achieve relative improvement after the completion of the treatment process and get positive results from the treatment.

References

[1]. Hosseini Fard, Mehdi. (1390). The effectiveness of schema therapy in the treatment of women with depressive disorder. PhD Thesis in Clinical Psychology, University of Social Welfare and Rehabilitation Sciences. [2]. Fatahi, Razia. (1389). Evaluation of the effectiveness of Islamic spiritual group therapy on depressive symptoms and quality of life of female students of the University of Isfahan, Master Thesis in Clinical Psychology, University of Isfahan.

[3]. Hosseini, Mehdi; Mehdizadeh Ashrafi, Ali. (1390). Depression and its causes, Management Quarterly, 8th year, pp. 106-115. [4]. Stunt, Venus; Namdari, Cyrus; Jamilian, Hamidreza; Abedi, Ahmadi (1395). The effect of forgiveness-based group therapy on depressive symptoms and rumination in women with depressive mood, Quarterly Journal of Clinical Psychology Studies, Year 6, No. 22, pp. 85-95.

[5]. Shariat, Mohammad Reza; Neshat Doost, Hamid Taher; Kalantari, Mehrdad; Arizi, Hamid Reza (1396). Indigenous treatment of chronic depressive disorders, Cultural Psychology, First Year, No. 1, pp. 52-84

[6]. Nazari, Ali; Ahmadian, Alireza (1393). The effectiveness of allegorical schema therapy in women with post-divorce depressive syndrome, Women's Research Journal, Volume 5, Number 1, pp. 141-159.

[7]. Ahmadi, Fatima (1396). The effectiveness of short-term intensive scanning psychotherapy on mental health, quality of life and disability caused by headache in patients with chronic tension-type headache, Master Thesis in Clinical Psychology, Allameh Tabatabai University.

- [8]. Manavipour, Davood; Roshani, Yasmin. (1394). Measurement of body temperature during short-term intensive dynamic psychotherapy: a case study, Journal of Clinical Psychology Studies, Volume 3, Number 2, pp. 61-68.
- [9]. MarziehOrvati Aziza et al, 2020, Integrative therapy (short-term psychodynamic psychotherapy & cognitive-behavioral therapy) and cognitive-behavioral therapy in the treatment of generalized anxiety disorder: A randomized controlled trial, Complementary Therapies in Clinical Practice, 30.

Tables and figures:

Table 1: Calculations for the mean and the median of positions A and B and tracking the first participant.

| | positions A | positions B | Tracking position A |
|---------------------------|----------------|------------------|---------------------|
| median | 30 | 20 | 11.5 |
| Stability bar of median | 24 & 36 | 16 & 24 | 9.2 & 13.8 |
| mean | 30 | 20.22 | 11.5 |
| Stability bar of mean | 24 & 36 | 16.18 & 24.26 | 9.2 & 13.8 |
| Range of position changes | 30 & 30 | 12 & 29 | 11 & 12 |

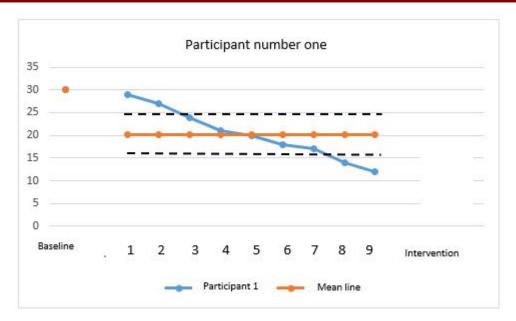


Figure 1: Depression scores of the first participant based on mean stability bar.

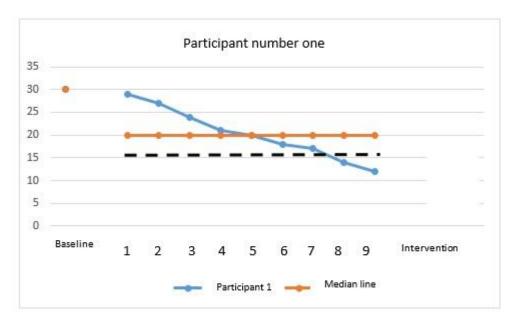


Figure 2: Depression scores of the first participant based on the median stability bar.

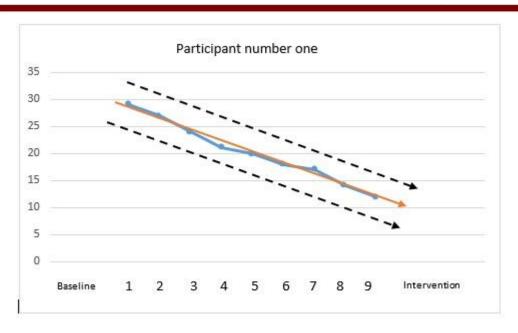


Figure 3: Depression scores of the first participant based on trend stability bar.

Table 2: Change the absolute and relative level In-situ for the first participant.

| Median and relative changes | positions | positions B |
|-------------------------------|-----------|----------------------|
| | A | |
| The median of the first half | 30 | 25.5 |
| The median of the second half | 30 | 15.5 |
| Relative level change | 0 | 10 units to decrease |
| The first value | 30 | 29 |
| The last value | 30 | 12 |
| Absolute level change | 0 | 17 units to decrease |

Table 3: Out-of-situ visual analysis variables for participant's depression scores.

| Inde x | Median of the first half B | Median of the second half A | | The value of the first point B | | | Effec t Size (PND | MPR | MPI |
|--------|-------------------------------------|--------------------------------------|---------------------|--------------------------------|----|-------------------------|-------------------------|---------|-----------|
| | 25.5 | 30 | 4.5 reduction units | 29 | 30 | 1 reduction units | 100 | 48.36 % | 32.6 % |

Table 4: Calculations related to the mean and the median of positions A and B and follow-up of the second participant.

| positions A | positions B | Tracking position |
|-------------|-------------|-------------------|
|-------------|-------------|-------------------|

| median | 29 | 20 | 12 |
|---------------------------|---------|------------------|------------|
| Stability bar of median | 34.8 | 16 & 24 | 9.6 & 14.4 |
| mean | 29 | 20.44 | 12 |
| Stability bar of mean | 34.8 | 16.35 & 24.53 | 9.6 & 14.4 |
| Range of position changes | 29 & 29 | 13 & 28 | 12 & 12 |

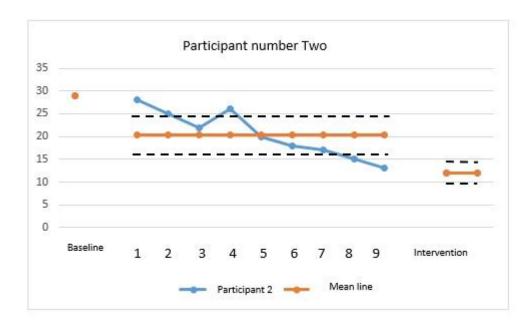


Figure 4: Depression scores of the second participant based on the mean stability bar.

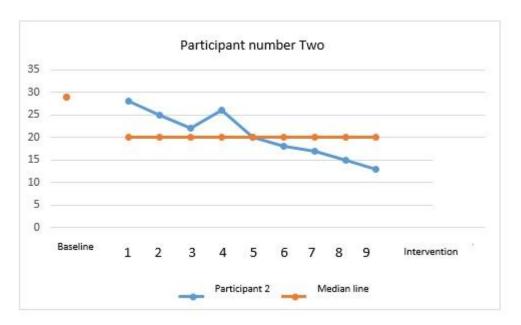


Figure 5: Depression scores of the second participant based on the median stability bar.

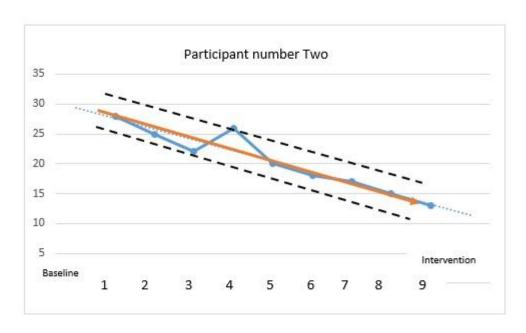


Figure 6: Depression scores of the second participant based on the trend bar.

Table 5: Change of absolute and relative levels within a situation for the second participant.

| Median and relative changes | positions | positions B |
|-------------------------------|-----------|-----------------------|
| | A | |
| The median of the first half | 29 | 25.5 |
| The median of the second half | 29 | 16 |
| Relative level change | 0 | 9.5 units to decrease |
| The first value | 29 | 28 |
| The last value | 29 | 13 |
| Absolute level change | 0 | 15 units to decrease |

Table 6: Out-of-situ visual analysis variables for

| the second p | participant | 's depress | ion scores. |
|--------------|-------------|------------|-------------|
|--------------|-------------|------------|-------------|

| I | nde | Median | Median | Relative | The | The | Absolute | Effect | MP | MP |
|---|-----|--------|--------|-----------------------|-----------|----------|--------------------|--------|-----|---------|
| X | (| of the | of the | level | value of | value of | level | Size | R | I |
| | | first | second | change | the first | the last | change | (PND) | | |
| | | half B | half A | | point B | point A | | | | |
| | | 25.5 | 29 | 3.5 units to decrease | 28 | 29 | 1 unit to decrease | 100% | 30% | 42 % |

Table 7: Calculations related to the mean and the median of positions A and B and tracking the third participant.

| | positions A | positions B | Tracking position |
|---------------------------|----------------|------------------|-------------------|
| Median | 28 | 18 | 11.5 |
| Stability bar of median | 22.4 & 33.6 | 14.4 & 21.6 | 9.2 & 13.8 |
| Mean | 28 | 18.6 | 11.5 |
| Stability bar of mean | 22.4 & 33.6 | 14.88 & 22.32 | 9.2 & 13.8 |
| Range of position changes | 11 & 12 | 12 & 26 | 11 & 12 |

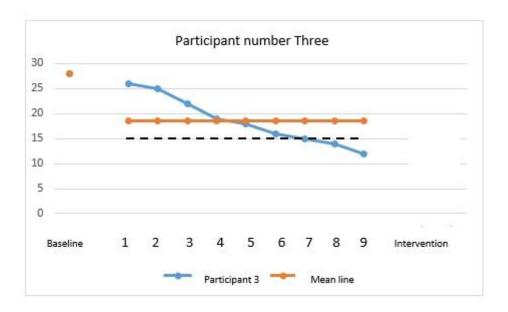


Figure 7: Depression scores of the third participant based on the mean stability bar.

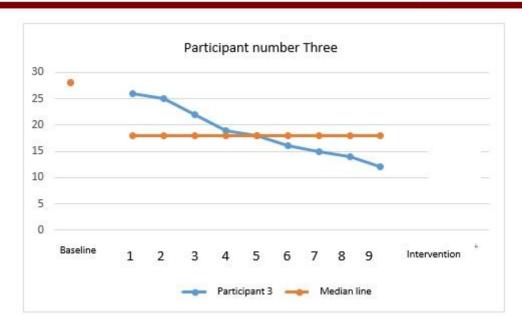


Figure 8: Depression scores of the third participant based on the median stability bar.

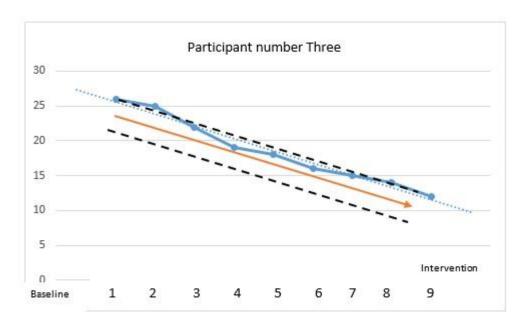


Figure 9: Depression scores of the third participant based on the trend bar.

Table 8: Change of absolute and relative levels within a situation for the third participant.

| Median and relative changes | positions | positions B |
|-------------------------------|-----------|---------------------|
| | A | |
| The median of the first half | 28 | 23.5 |
| The median of the second half | 28 | 14.5 |
| Relative level change | 0 | 9 units to decrease |

| The first value | 28 | 26 |
|-----------------------|----|----------------------|
| The last value | 28 | 12 |
| Absolute level change | 0 | 14 units to decrease |

Table 9: Out-of-situ visual analysis variables for the third participant depression scores.

| Inde | Median | Median | Relative | The | The | Absolute | Effect | MPR | MPI |
|------|---------------------|----------------------|-----------------------|----------------------------------|-----|---------------------|---------------|------|-----------|
| X | of the first half B | of the second half A | level change | value of the first point B | | | Size (PND) | | |
| | 23.5 | 28 | 4.5 units to decrease | 26 | 28 | 2 units to decrease | 100% | 33.6 | 50.5 % |

Table 10: Calculations for the mean and the median of positions A and B and tracking the fourth participant.

| | positions | A | positions | В | Tracking position |
|---------------------------|--------------|---|--------------|---|-------------------|
| Median | 28 | | 19 | | 12.5 |
| Stability bar of median | 22.4 33.6 | & | 15.2 22.8 | & | 10 & 15 |
| Mean | 28 | | 19 | | 12.5 |
| Stability bar of mean | 22.4 33.6 | & | 15.2 22.8 | & | 10 & 15 |
| Range of position changes | 28 & 28 | | 13 & 26 | | 12 & 13 |

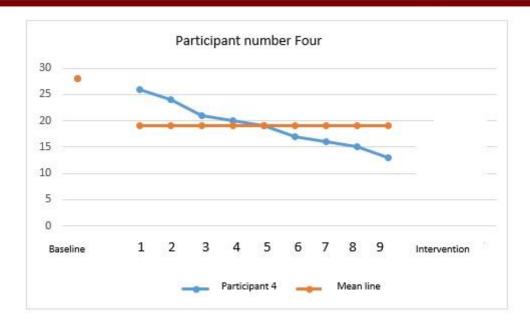


Figure 10: Depression scores of the fourth participant based on the mean stability bar.

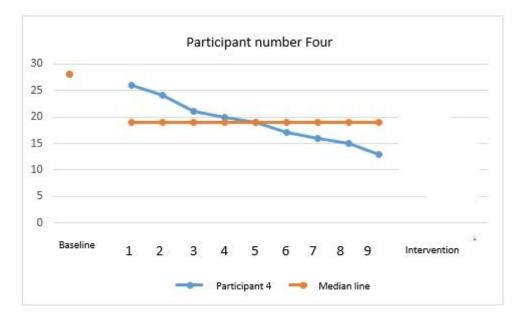


Figure 11: Depression scores of the fourth participant based on the median stability bar.

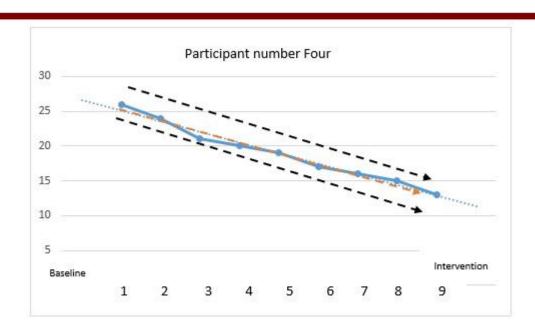


Figure 12: Depression scores of the fourth participant based on the trend bar.

Table 11: Changes in absolute and relative levels within a situation for the fourth participant.

| Median and relative changes | positions | positions B |
|-------------------------------|-----------|----------------------|
| | A | |
| The median of the first half | 28 | 23.5 |
| The median of the second half | 28 | 15.5 |
| Relative level change | 0 | 7 units to decrease |
| The first value | 28 | 26 |
| The last value | 28 | 13 |
| Absolute level change | 0 | 13 units to decrease |

Table 12: Out-of-situ visual analysis variables for the fourth participant's depression scores.

| Inde x | Median of the first half B | Median of the second half A | Relative level change | The value of the first point B | | | Effect Size (PND) | MPR | MPI |
|-----------|-------------------------------------|-----------------------------|-----------------------|--------------------------------|----|---------------------|-------------------------|------|------|
| | 23.5 | 28 | 5.5 units to decrease | 26 | 28 | 2 units to decrease | 100% | 47.3 | 32.1 |

Table 13: Calculations for the mean and the median of positions

A and B and tracking of the fifth participant.

| | positions A | positions B | Tracking position |
|--------|-------------|-------------|-------------------|
| Median | 29 | 18 | 12 |

| Stability bar of median | 23.2 34.8 | & | 14.4 & 21.6 | 9.6 & 14.4 |
|---------------------------|--------------|---|----------------|------------|
| Mean | 29 | | 2333 | 12 |
| Stability bar of mean | 23.2 34.8 | & | 18.66 & 28 | 9.6 & 14.4 |
| Range of position changes | 29 & 29 | | 11 & 39 | 12 & 12 |

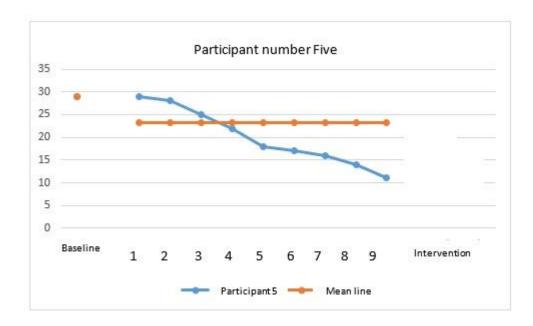


Figure 13: Depression scores of the fifth participant based on the mean stability bar.

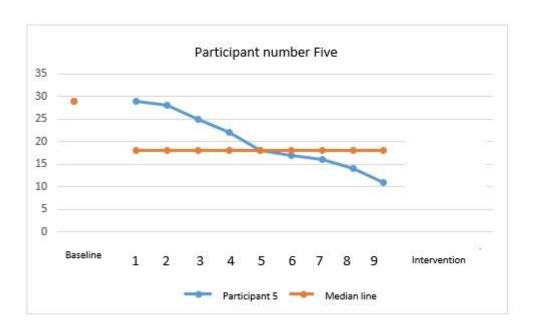


Figure 14: Depression scores of the fifth participant based on the median stability bar.

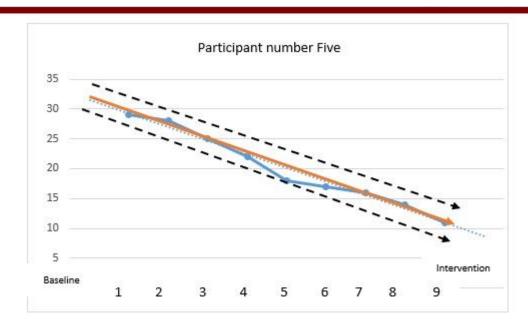


Figure 15: Depression scores of the fifth participant based on the trend bar.

Table 14: Change of absolute and relative levels within a situation for the fifth participant.

| Median and relative changes | positions | positions B |
|-------------------------------|-----------|-----------------------|
| | A | |
| The median of the first half | 29 | 26.5 |
| The median of the second half | 29 | 15 |
| Relative level change | 0 | 9.5 units to decrease |
| The first value | 29 | 29 |
| The last value | 29 | 11 |
| Absolute level change | 0 | units to decrease 18 |

Table 15: Out-of-situ visual analysis variables for the fifth participant's depression scores.

| Inde | Median | Median | Relative | The | The | Absolute | Effect | MP | MP |
|------|--------|--------|-----------|-----------|----------|----------|--------|------|----|
| X | of the | of the | level | value of | value of | level | Size | R | I |
| | first | second | change | the first | the last | change | (PND) | | |
| | half B | half A | | point B | point A | | | | |
| | 20 | 25.5 | 1.5:4 | 20 | 20 | 0 | 900/ | 200/ | 24 |
| | 29 | 25.5 | 4.5 units | 29 | 29 | 0 | 89% | 20% | 24 |
| | | | decrease | | | | | | % |