Psychotherapy and psychological time: a case study

Psicoterapia e tempo psicologico: uno studio di caso

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SUMMARY. Aim. The present study is a comparative case study as part of research on the psychotherapeutic process. This research describes the perception of subjective time in two psychotherapeutic processes, one successful and one unsuccessful. **Methods.** We studied two psychotherapeutic processes of cognitive orientation, which were video recorded and fully transcribed in each session. First a qualitative analysis was applied for quality coding (Top-down) was performed to identify category types of subjective time, depending on psychological well-being. These were categorized as past, present, and future; each one in positive and negative forms. Secondly, two quantitative statistical analyses were applied: one of content analysis, which allowed us to observe the frequencies for the six categories, and another, a cumulative frequency analysis, which allowed us to identify a differential pattern in the analyzed cases. **Results.** These data showed different temporal profiles for both cases, differentiated by categories. This finding that would allow us to track the process of subjectivity in terms of specific components associated with psychotherapy success. **Discussion and conclusions.** We present a mixed method, a qualitative for initial coding of patient speaking turns and a quantitative methodology such as the cumulative frequency analysis in time in a therapeutic context. Those changes are progressive and must be observed as a continuous and dynamic evolution to allow for an interpretation in a naturalistic context.

KEY WORDS: process research, content analysis, effectiveness, perception of time, case formulation, cognitive psychotherapy.

RIASSUNTO. Scopo. Il presente lavoro è uno studio di caso comparativo, parte di una ricerca sul processo psicoterapeutico. La ricerca descrive la percezione del tempo soggettivo in due processi psicoterapeutici, uno con esito positivo e l'altro no. **Metodi.** Abbiamo studiato, con un orientamento cognitivista, due processi psicoterapeutici, videoregistrati e trascritti integralmente seduta per seduta. Inizialmente è stata condotta un'analisi qualitativa (con approccio top-down) per codificare la qualità, e realizzata per identificare categorie dei diversi tipi di tempo soggettivo, che dipendono dai differenti stati di benessere psicologico. Queste sono state categorizzate come passato, presente, futuro, ognuna nella forma positiva e negativa. Successivamente, sono state condotte due analisi statistiche quantitative: un'analisi del contenuto, che ci ha permesso di osservare le frequenze delle sei categorie; e un'analisi cumulativa di frequenza, che ci ha permesso di identificare un pattern differenziale nei casi analizzati. **Risultati.** I dati mostrano differenti profili temporali in entrambi i casi, differenziati dalle categorie. Tale risultato potrebbe permetterci di descrivere il processo della soggettività in termini di componenti specifiche associate al processo psicoterapeutico. **Discussione e conclusioni.** Presentiamo un metodo composito, qualitativo, per un'iniziale codifica delle espressioni linguistiche del paziente e una metodologia quantitativa, come l'analisi di frequenza cumulativa nel tempo, in un contesto psicoterapeutico.Tali cambiamenti sono progressivi e devono essere osservati come un'evoluzione continua e dinamica per consentire un'interpretazione in un contesto naturalistico.

PAROLE CHIAVE: ricerca di processo, analisi dei contenuti, efficacia, percezione del tempo, formulazione dei casi, psicoterapia cognitiva.

INTRODUCTION

Man is essentially a temporal, historical, cultural, and narrative being[1-5]. These dimensions are critical for understanding self-organization in mental states[6,7].

Moreover, we are interested in understanding time based on intersubjective data, that is to say, data obtained in psychotherapeutic processes under natural conditions. We know that time is not reversible, it involves an evolutionary linearity, that is to say, we are born and we progressively have a sense of an end or "death". Unlike processes, personal time cannot be reversed from a chronological perspective.

Analysis of the nature of time and its role in human consciousness has been and age-old subject as clearly stated by the Greek tradition in philosophy, and in particular by the legacy of Aristotle, who has left us the most solid doctrine on the matter.

In the field of Psychology of the XIX century, the study of

the perception of time was a tradition that mainly began with William James, who said it was one of the fundamental elements of cognition because it gives meaning to lived experiences[4]. Other researchers interested in the tradition of the study of time have suggested, for example, that it contributes to regulate present behavior[8], anticipate the future[9], and is considered as an indicator of efficient social adaption, as it allows us to understand the flexibility of social behavior[10,11]. Nowadays, it is an increasingly studied variable in different areas in psychology[12-16].

The perception of time is one of the psychological elements in which all human beings organize and plan their different activities in daily life. Nowadays, we know that the perception of time is not due to a specific sensory modality, but it is considered a complex cognitive skill that involves multiple coordination processes of internal and external keys that include different brain areas, including structures such as the cerebellum, the basal ganglia, and large areas of the sensory, motor and association cortices[17-19]. Moreover, evidence from a neurobiological level is added where the perception of time and its subjective processing is distinguished[20-22].

From an evolutionary viewpoint, the perception of time is an adaptive function that allows us to efficiently predict, anticipate, and respond to any type of event that exists. Similarly, the capacity to estimate time correctly is fundamental in human daily activity[23]. In addition, it is essential for the survival of human beings as it is a fundamental aspect for achieving different objectives in life within a range of time.

Moreover, as shown by research in recent decades, the subjective perception of time is not isomorphic to objective time (the clock) and it can be deformed by a number of factors[24]. Those that have been addressed by various research paradigms exist between retrospective and prospective paradigms, which are the most important distinction in this regard[25]. Historically, in short, a dichotomy between physical or objective time versus subjective or psychological time has been sustained[26].

More specifically, in the area of clinical psychology, the temporal nature of human behavior appears with explanatory relevance in various areas such as: psychopathological disorders[27-30], emotions and mood disorders[13], high-risk behavior[31], type A personality[32], basic psychology[25], and psychotherapy processes[33]. We know that the nature of temporality affects all human existence and psychopathology and therefore the psychotherapeutic process, that aims to achieve changes, forms a part of this[34].

From the viewpoint of the process of change in psychotherapy, the perception of psychological time is conceptualized as an indicator of the organization of temporal experiences regarding the sense of self[5,7]. These indicators are seen as temporal orientations and also as temporal distortions that occur in various mental health problems, that we have denominated "perception of problematic time" (PT-p) for the presence of psychological distress, and the "perception of healthy time" (PT-h), normally understood as the presence of psychological wellbeing[7,35].

The present study has been guided by the objective to explore the perception of subjective time indicators (patient speaking turns) associated with therapeutic success (subjective perception, agreement between client and therapist to meet objectives, therapist evaluation, and psychological tests), using textual data obtained in naturalistic clinical practice.

In conclusion, the present case study is situated in the research framework of psychotherapy processes[33,36-42] in a naturalistic context[33,34].

FRAME OF REFERENCE AND CODIFICATION OF SPEAKING TURNS

We performed the qualitative codification (*top-down*) of patients' speaking turns following the theory of time orientation of Zimbardo & Boyd[16] as a reference and the "RMPS" model of case formulation[7,35,43-45].

Time orientation[16] has been one of the most notable concepts in this field during recent years, being understood as people's attitude and focus towards one or more of three dimensions or temporal zones: the past, present, and future. Regarding the temporal orientation and elaborated categories, it is maintained that focus tends to be relatively stable in time, and in general, people are focused on one dimension and that implies consequences in their cognitions, emotions, and behaviors. Zimbardo & Boyd[16], the model that we use as the main inspiration for this study, propose that the three time zones can be described in 5 temporal dimensions: Past-Positive (PP), based on the vision of positive life experiences that the person has had in the past; Past-Negative (PN) in which the attitude towards the past is focused on negative experiences that may be due to difficult or traumatic real situations, or a negative assessment of past life experiences; Present-Hedonistic (PH) represents the focus towards the search of enjoyment and pleasure; Present-Fatalistic (PF) represents a negative attitude towards current events and experiences, focusing on the loss of hope regarding what could happen in life; Future (F) is the dimension that characterizes a focus towards planning and achieving goals.

Moreover, the narrative categories were mainly supported in the Case Formulation Model RMPS[46]. This model arises from cognitive tradition in psychotherapy[47-57], from clinical experience[7,43] and from research of successful and unsuccessful psychotherapy processes in the non-psychotic spectrum[33,46]. Finally, it is a model that aims to organize clinical data, session by session, to facilitate the effectiveness of psychotherapy.

Narratives from the formulation model are focused on content involved in the topic(s) that patients present and they can be analyzed from two complementary processes to be understood: Descriptive Narrative and Reflexive Narrative[33]. Firstly, "Descriptive Narrative" (DN) is a narrative that refers to external aspects of what happened to the person that experienced discomfort. This implies a sequential and linear description of a fact. Answer the question: "What happened?" For the positive (healthy), this reveals an elaboration of the "what happened?" that shows a sequential and linear description that is useful to the patient for achieving a representation that contributes to psychological wellbeing. In contrast, for the negative (problematic), this refers to an elaboration of the "what happened?" that shows deficit and/or absence in the adequate sequential and linear description that is not useful for the patient to obtain a representation that contributes to psychological wellbeing.

Secondly, by "Reflexive Narrative" (RN) we mean a narrative that refers to aspects of internal elaboration and reflexive analysis of what happened and what the person

processed internally. It implies an elaboration of meaning and articulation of what happened and it answers the question: "what does the thing that happened mean?". The positive (healthy) indicates a sequential elaboration and a healthy reflection about experiences that are being transformed into a new narrative frame of reference, facilitated by Piagetian processes of assimilation and accommodation, in order to progressively obtain a new narrative, which is alternative and psychologically healthy. In contrast, the negative (problematic) refers to an internal and reflexive narrative that indicates an absence of transformation of meaning about what happened. Put another way, there was no new information or integration of information, thus the narrative continues to have the quality of being non-adaptive.

METHODS

Participants

The form of case selection corresponded to a sample by accessibility. The inclusion criteria of the study cases were: (a) patients over 21 years; (b) that requested voluntary individual psychotherapy; (c) absence of present psychotic symptoms or history of psychotic episodes; (d) absence of drug addiction.

Moreover, the criteria to consider the appropriate therapist were: (a) the treating therapist was a psychologist; (b) he/she was an accredited psychotherapist; (c) had 10 years of clinical experience, and (d) had training in accredited cognitive psychotherapy.

The case study consisted of two psychotherapeutic processes of 18 and 6 sessions. The successful case corresponded to an adult patient, attended to in a private psychological center of psychotherapy, with a diagnosis of mixed adjustment disorder (anxiety-depression). The patient was a 25-year-old female university student in the process of graduating. The case was successful and had a duration of 18 sessions, including a follow-up session. The frequency of sessions was once a week until session 15. Subsequently, sessions 16 and 17 were performed every two weeks, and session 18, the follow-up and final session, was conducted one month after session 17.

The unsuccessful case corresponded to an adult patient, who was attended to in a private psychological center of psychotherapy, with a diagnosis of agoraphobia. The patient was a 38-year-old professional male who had completed university studies. The case had a duration of 6 sessions with a frequency of once a week.

Regarding the end of the therapeutic processes, different criteria were used. For the successful case, the criteria were as follows: (a) an agreement between the client and therapist about the completion of objectives; (b) client perception of psychological wellbeing; (c) psychometric tests that indicate remission of symptoms/signs and therapeutic results (Tables 4 and 5); (d) one follow-up session held one month later, that showed both maintenance of remission of symptoms/signs and maintenance of psychological wellbeing.

Moreover, the criteria used for the unsuccessful therapeutic process were: (a) expert opinion of the treating therapist, no progress was not achieved in the agreed therapeutic objective (significantly reduce symptoms and agoraphobic signs) and (b) abandonment treatment.

Subsequently, regarding the ethical safeguards, the informed consent of the patients was requested, guaranteeing the confidentiality of the information provided.

Instruments

Beck Depressive Inventory II (BDI-II): updated version of the BDI by Beck, Steer & Brown[58], and adapted into Spanish by Sanz et al.[59]. It is a self-administered questionnaire designed to assess depressive symptoms in adolescents and adults with 13 years or more. It presents 21 items with four response alternatives, which are assigned scores of 0 to 3 according to the intensity of depressive symptoms[58]. In Chile, the instrument has been shown to effectively discriminate between clinical population and not consulting. The internal consistency (0.91), and the factor structure observed are similar to those of other studies[60]. The latter study showed that the cutoff score of 19 proposed by Beck et al.[58].

Beck Anxiety Inventory (BAI): the BAI is a self-report instrument widely used internationally, with high levels of internal consistency and ability to discriminate between normal and pathological anxiety[61,62]. A Chilean study aimed to evaluate the prevalence of depression and anxiety in high school students observed the alpha value was 0.9[63].

The Outcome Questionnaire-45 (OQ-45): was developed by Lambert & Cols.[64] in order to help improve outcomes of treatment. It was validated in Chile in 2000 by Von Bergen & De la Parra[65].This self-administered questionnaire has shown high sensitivity and reliability for the quantitative measurement of psychotherapeutic results[66,67]. This instrument consists of 45 items summarized in a total score and in three subscales: Symptoms of Distress (SD); Interpersonal Relations (IR); Social Role functioning (SR)[68].

Derogatis Symptom Inventory (SCL-90)[69]: it is a self-report assesses the degree of current psychological distress experienced by a person over 90 psychiatric symptoms of varying severity. The respondent must indicate to what extent has bothered or disturbed each of these problems during the last week using a Likert scale of five points. The results are organized into nine primary symptom dimensions (somatization, obsessions, sensitivity interpersonal, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism) and three global indices of psychopathology: Global Severity Index (Global Severity Index, GSI), Discomfort Index Positive (Positive Symptom Distress, PSDI) and Positive Symptom Total (Positive Symptom Total, PST)[70].

Procedure

Qualitative analysis

The analyzed psychotherapy processes were video recorded and fully transcribed in Microsoft Word. The transcription was carried out by Psychologists and supervised by the treating therapists. In both cases all data that could identify patients, were modified in order to maintain confidentiality. The transcripts were then exported from Microsoft Word to the program Atlas.ti 6.2 for its qualitative coding (top-down). Then the category generation qualitative analysis was divided into three phases. The first two phases were carried out by reading the transcriptions in Word format and the third phase was carried out using the program Atlas.ti 6.2. First, a team of three psychologists individually proceeded to the selection of topics in both therapeutic processes and then the topics selected by each psychologist were agreed on. The therapeutic objectives were used as selection criteria for the topics. Secondly, one therapeutic objective in its entirely was analyzed for each therapeutic processes. Two clinical psychologists with cognitive training agreed on this.

To obtain the categories in the successful case, a case analyzed in a previous study[34], the relevant topics were selected from the 1st to the 18th session. Based on the agreed objective, speaking turns were selected from 10 sessions: 1st, 2nd, 3rd, 9th, 12th, 13th, 15th, 16th, 17th, 18th.

The relevant topics were selected to obtain the categories in the unsuccessful case. Speaking turns were extracted and analyzed from sessions: 1st, 2nd, 3rd, 4th, 5th, 6th, based on the agreed objective (Table 1).

Thirdly, using the program Atlas.ti 6.2, qualitative coding of patient speaking turns was carried out, following an established tabulation (top-down) as orientation based on the Time Orientation Model of Zimbardo and Boyd[16] (Table 2), where one time category was uniquely applied to each turn and this tabulation was carried out by two clinical cognitive psychologists. Subsequently, the narrative categories based on the Model of Case Formulation RMPS[43,44] (Table 3) were applied to the turns described by the time categories.

In total, 10 categories were generated. These were as follows: positive past, negative past, positive present, negative present, positive future, negative future, positive descriptive narrative, negative descriptive narrative, positive reflexive narrative, negative reflexive narrative. Consistency was obtained (inter-judges) higher than 0.81, which is considered exceptional[58].

Quantitave analysis

Regarding the quantitative analysis, first, a Microsoft Excel spreadsheet of the 6 time categories was applied (top-down) and the data were exported to the statistical program SPSS version 19, to perform the correlation and cumulative frequency analyses. Secondly, a matrix with 4 categories was applied: Positive Descriptive Narrative, Negative Descriptive Narrative, Positive Reflexive Narrative, and Negative Reflexive Narrative, to analyze the time orientation from a narrative perspective.

Moreover, to estimate the therapeutic results, we applied a series of tests, which were validated and adapted in Chile: BDI-II[60]; BAI[63]; OQ-45[65]; SCL-90[70]. These Instruments were applied in the first session and at the fifteenth session.

The results of the tests applied in the successful case indicate:

1. The BDI-II and BAI scales show, in the first application, the presence of mild symptoms, coherent with the diagnostic hypothesis that the patient had a mixed adjustment disorder at the beginning of the therapy, with depressive and anxious symptoms. These symptoms showed a remission in the second application of both instruments, which were not applied at the end of the therapy, because from the point of view of the treating therapist, the clinical judgment did not advise their application (Table 4).
2. In the OQ-45, the overall score indicated that the person being evaluated belonged to the dysfunctional population, in the first application. In the second application, the results of the total scale indicated that the client no longer belonged to this population, which is expressed on the scales that assesses symptomatology and social roles. Despite this change, the client still showed dysfunctionality in the area of interpersonal relations. In the third and final evaluation, both the overall scale and the scores of all the subscales indicated that the patient had returned to a healthy functioning level. For the last application, the Reliable Change Index (RCI) exceeded in the overall result of the questionnaire, as well as in the areas of symptomology and interpersonal relations, which indicated that the change was statistically significant (Table 4).
3. The results of the SCL-90 indicated that: in the first application, while the T scores in all scales were less than T63, the risk indicator, the scales of "somatization", "depression", phobic anxiety" had a score equal to or higher than T55, corresponding to the "overall severity" index of a T value of 57. The scales with similar values to the risk indicator provided information consistent with the descriptive clinical hypothesis.

In the second application (session 15), an evident decrease in T values was observed in all scales and indices measured by the SCL-90, with T scores between 30 and 45, which indicate a significant decrease in associated discomfort. This information is consistent with the clinical assessment of remission of the mixed adjustment disorder.

On the scales of somatization, depression and anxiety, the patient showed an initial profile of 1.58% (T61), 1.69% (T58), and 1.2% (T55), and a final profile of 0.08% (T35), 0.15% (T35), and 0.3% (T40), respectively (Table 5).

Moreover, the results of the tests used in the unsuccessful case, not published in this study, which were also applied in the second session, showed anxious symptomology consistent with the diagnosis of agoraphobia. These results are not published here because there were no subsequent applications, therefore, they were not considered relevant.

Data analysis

A mixed methodology is used, a qualitative for initial coding of patient speaking turns and a quantitative for cumulative frequency analysis in time in a therapeutic context.

First, we perform a content analysis assisted by the program Atlas.ti 6.2 and a matrix of the 3 identified categories was applied: Past, Present, and Future. It is worth noting that each category had two presentation possibilities: a positive indicator that refers to psychological wellbeing and a negative indicator that refers to

Table 1. Summary of Qualitative process data collection methods, data forms, and analysis method.

Case	Data collection Method	Data Form	Total Sessions	Selection speech turn	Sessions	Analysis Method
Successful case	Sessions Psychotherapy	Transcript psychotherapy sessions (Speaking Turns)	18th	For one therapeutic objective (Themes)	1st, 2nd, 3rd, 9th, 12th, 13th, 15th, 16th, 17th, 18th	Content analysis
Unsuccessful case	Sessions Psychotherapy	Transcript psychotherapy sessions (Speaking Turns)	6th	For one therapeutic objective (Themes)	1st, 2nd, 3rd, 4th, 5th, 6th	Content analysis

psychological discomfort. Therefore, one could expect to find 6 categories. To analyze how these categories are interrelated in the overall continuous process, a matrix that registers the presence and absence of each category was constructed for each sequence of patients speaking turns in both coded therapeutic processes.

Second, we perform a relative frequency analysis during the accumulation of turns from each category, during the therapy sessions, to compare the presence of each one in relation to the other. In the analysis of cumulative frequencies, a total of 262 patient speaking turns were registered for the successful case and 220 patient speaking turns for the unsuccessful case.

We emphasize that all speaking turns selected (262 and 220) correspond to the selected therapeutic objective.

The narrative categories were then applied to all speaking turns that were previously coded by applying the 6 time categories. The types of the applied narrative categories were: Positive Descriptive Narrative (DN+), Negative Descriptive Narrative (DN-), Positive Reflexive Narrative (RN+), and Negative Reflexive Narrative (RN-).

Table 2. Categories time orientation.

Categories (Top-down) Phase 1
Positive past
Negative past
Positive present
Negative present
Positive future
Negative future

Table 3. Categories narratives.

Categories (Top-down) Phase 2
Positive descriptive narrative
Negative descriptive narrative
Positive reflexive narrative
Negative reflexive narrative

RESULTS

In the successful case, analyzed in a previous publication by Quiñones et al.[34], a cumulative frequency analysis was carried out for a total of 262 patient speaking turns, selected from different sessions. The previous the reported data, a change in relative frequencies was shown between categories (from the possible 6) accumulated during the sessions. The main result showed a practically perfect negative correlation between the Negative Past and Negative Present categories in the first 150 turns, a correlation that later becomes positive and close to the maximum value. Another interesting result from this study, is that when we observed a change in the correlation value (around turns 150-160) (Figure 1a) between the before mentioned categories, there is an increase in frequency in the Positive Present category, which in turn, almost perfectly negatively correlates with Negative Past and Negative Present.

In the present study, in addition, we report a different level of analysis for this successful case, in which we associated the main changes in frequency of the time categories with a specific type of narrative detected in the sessions of the therapeutic process (Figure 1), the descriptive narrative and reflexive narrative both in its positive and negative variants. When the type of Positive Reflexive Narrative is observed, there is an inverse relationship in the cumulative frequency between Positive Present and Negative Past (r=-0,987 and p=0.000). Moreover, when the Positive Reflexive Narrative it presents (from the speaking turn number 161), the Positive Present cat-

Table 4. Results of applications BDI-II, BAI and OQ-45.

	BDI II	BAI	OQ-45		
			SD	IR	SR
1st session	12	19	47	19	10
15th session	2	6	17	6	3
PC			43	16	14

Table 5. Results of SCL-90 applications.

SCL-90 Scales	T (1st application) 1st session	T (2nd application) 15th sesión
Somatization	61	35
Obsessions y compulsions	53	30
Interpersonal sensitivity	54	37
Depression	58	35
Anxiety	55	40
Hostility	56	30
Phobic anxiety	59	45
Paranoid ideation	47	45
Psychoticism	53	43
Index of overall severity	57	34
Total positive symptoms	61	36
Positive symptomatic discomfort	48	30

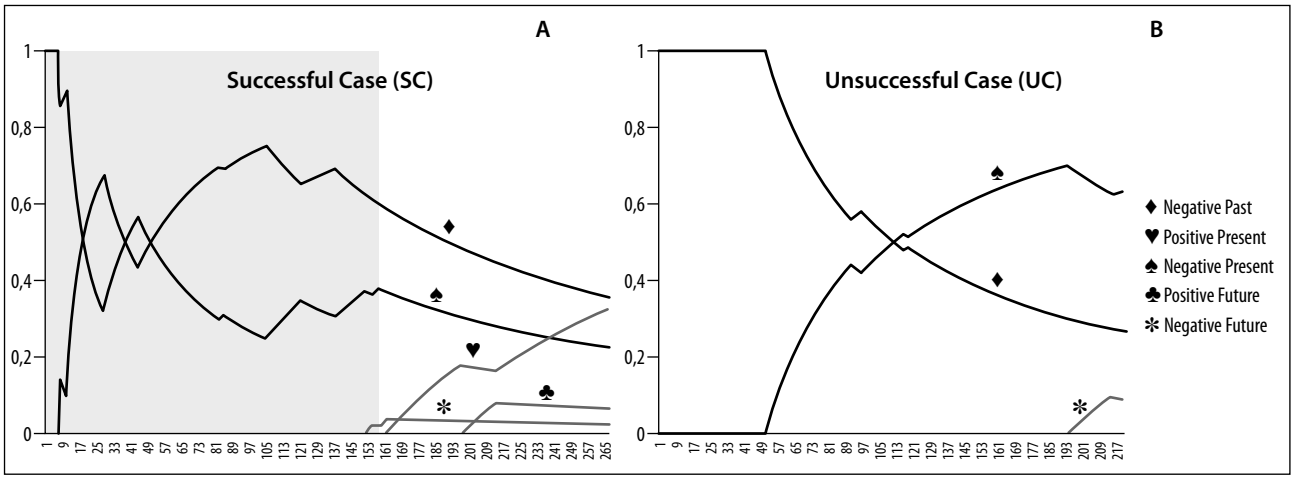

Figure 1. Cumulative frequencies of time categories versus speaking turn.
This figure shows the cumulative frequency of possible time categories: past, present, and future, and each of their positive and negative variants. The X-axis shows the registered turns for both therapeutic processes. These turns have been sequentially selected from therapy sessions. The Y-axis shows the relative frequencies of the time categories. The 1A figure corresponds to the Successful Case (SC) and the 1B corresponds to the Unsuccessful Case (UC). In the SC there was no presence for the category Positive Past and for the UC there was no presence for categories: Positive Future, Positive Present and Positive Past. The gray area in the Figure 1A (SC) corresponds to the period where the Negative Reflexive Narrative predominates and in the following period, roughly from the turn 161, the Positive Reflexive Narrative predominates.
Part of the data of the SC were previously reported in Quiñones et al.[34], and reused here with permission from the *Revista Argentina de Clínica Psicológica*.

egory increases, decreasing Negative Present (r=-0.594 and p=0.000) and Negative Past (r=-0.603 and p=0.000).

In the unsuccessful case, a cumulative frequency analysis was carried out for a total of 220 patient speaking turns, selected from the six sessions of the therapeutic process. Differential time profile is shown in a graphical representation for the comparison of both cases in Figure 1b. In the analysis of the unsuccessful case, the sequential change of the relative frequency was not observed between time categories during the sessions, compared to the successful case. An inversely proportional correlation was observed between Negative Past and Negative Present (r=-0.997 and p=0.000). Moreover, Negative Future appeared at the cost of Negative Present, evidenced by an inverse correlation (r=-0.993 and p=0.000), only when Negative Future is present.

In addition, in the unsuccessful case, it was not necessary to perform the analysis in regards with the narrative categories, since only Negative Descriptive Narrative appeared in the selected speaking turns in the different sessions. Therefore, none of the narrative categories appear in the selected turns (Positive Descriptive Narrative, Negative Reflexive Narrative and Positive Reflexive Narrative).

DISCUSSION

Our main finding in the successful case is that by cumulative frequency analysis in a succession of speaking turns during therapy where, in the first 150 turns, we observed a negative correlation between the Past Negative and Present Negative categories, which then changed dramatically to a positive correlation between the same categories, significantly increasing the relative presence of the Present Positive category. This change, in the sense of category correlation, is associated with a change in the narrative, showing a change in the transition to a Positive Reflexive Narrative. We interpret this aspect as reconstruction and self-observation conducted by the therapist who managed to facilitate the delimitation and integration of information in the patient, which transforms into possibility and ends up being understood as information of itself, and not in a past that has a type of damning fate ("no escape"). The flow of information of the sense of time (Past) begins to gradually change, since awareness now allows us to re-read the past (information) as present, and it is gradually transformed into learning and possibility in the now. It is a kind of evolutionary coherence, to be in harmony with oneself, and with the possibilities of an information processing system, focused on solving problems from an evolutionary perspective.

In the second cross analysis of narrative-type categories, we see the type of narratives involved in the process of change in the temporal information flow. In our opinion, it indicates that chronological time is critical to follow a higher level of information processing that we call reflexive narratives, which refers to subjective and personal time that is in reference to chronological time but goes further. Chronological time is a possibility of primary elaboration and is necessary, but not sufficient. We understand it as necessary to nurture a sense of the canonical,

that is, shared and expected intersubjective reality. However, for psychological wellbeing, it is necessary to reach reflexive narratives and move from the negative to the positive quality. In other words, reflexive narratives, first negative and then positive, imply a capacity of self-observation and perception of the integrated time. This results in possible perspectives of information integration and problem solving for the present and the "near present", which is a kind of "near future of possibilities".

The unsuccessful case was a process with a different profile. Firstly, the temporal categories only shown were Past Negative, Present Negative, and Future Negative. There was no change in quality from negative to positive observed.

Secondly, we observed a poor narrative in the six sessions and only in the presence of a negative descriptive narrative. We interpret this as a focused representation and being unable to "detach" oneself from the pain implied by the dysphoria endured by the patient.

In short, in a successful therapeutic process, descriptive and reflexive narratives generate alternatives that come together as true narratives[72], which allows for a new understanding and a motor for change towards renovated psychological wellbeing that is expressed in a present, free of tensions and with various future prospects. Therefore, it is a process of integration of different domains of information (emotions, expectations, agency, cognitions, self-care, etc.). In contrast, we do not observe an emergence of a true narrative that "dissolves" the psychological discomfort in the unsuccessful process.

Finally, we highlight the contribution of a quantitative methodology such as the cumulative frequency analysis in time, which in this case was a key tool to show a change in relation to a history of data. In the therapeutic context, the changes are progressive and should be observed as a continuous and dynamic evolution to allow for an interpretation in context. Thus, our proposal provides objective data as the temporal categories present a specific sequential evolution.

CONCLUSIONS

It is important to note the critical dimension of the temporal profiles in the present study. This allows us to affirm, in an exploratory manner, that different temporal profiles are observed for both cases, successful versus unsuccessful, in relation to psychological wellbeing.

The phenomenological analysis of the patients' experience, analyzed here, shows that the perception of psychological time (temporal profile) has an impact over the psychological discomfort versus psychological wellbeing. Therefore, in our view, it should be considered as a variable to identify and gradually intervene in the therapeutic process, which is inserted in a naturalistic context of research.

Finally, this case study has limitations mainly associated with such studies (for example, the problem of generalization of results). The case study has played a key role in clinical psychology, despite all the limitations of which are known in the scientific literature. However, our opinion is that this research enriches the perspective gradually start studying and better understanding, "subjective experience of temporality" in therapeutic processes in a naturalistic context.

Conflict of interest: the authors declare that there is no conflict of interest.

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