Original Research

Conversation analysis: psychotherapist interventions in different gender university students with depressive conditions and suicidal ideation

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Abstract

Background: Research shows that university students have increased prevalence of depressive disorders with suicidal ideation. The aim of the study is to analyze the psychotherapist’s interventions in university students with a diagnosis of mild depression and suicidal ideation attended in a psychological center of an accredited university. Methods: Descriptive study of multiple cases and mixed method. The sessions were divided into three time segments to recognize the interventions used by the psychotherapist in the four therapeutic dyads. Results: Although the students share the same diagnosis, the psychotherapist’s interventions are different according to the gender and experience of the psychotherapist. The greater the experience, the more binding and chain interventions are used, while the psychotherapist in training uses expansion, change and explanatory interventions. Conclusions: Interventions are distributed differently throughout the sessions, are engaged according to the years of experience of the psychotherapist and the gender of the student. The diagnosis of depression does not affect the type of intervention used.

Keywords: Psychotherapeutic interventions; University students; Suicidal ideation; Gender differences

1. Introduction

University Students (UE) are young adults who test their competencies, skills and strategies to deal with stressful situations and respond to the demands of the University [1–3]. Academic demands and other stressors of university life can overwhelm psychological organization and adaptive mechanisms, and can lead to discomfort, stress, risk behaviors, and mental illness [4,5].

Mental disorders of university students have increased in America. Argentina presents 33.44% of depressive symptoms; the United States 3.7% of suicidal ideation (SI) in the last 12 months and 1.5% of suicide attempts (SA) in the last 2 weeks; Colombia 30.3% of depressive symptoms and 31% of SI; Brazil 7.5% of SA and 54% of SI and Peru 78% of sleep disorders [3,6–9].

Chile also increased its prevalence of mental disorders in the UE, with 27% of depressive disorders associated with suicidal risk and 15% of anxious disorders, which when distributed by gender, depression with SI reached 13.4% in men and 18.1% in women, who need psychotherapy [4,10–13].

1.1 UE psychotherapy

Psychotherapy should be timely, specialized and relevant to avoid the chronicity of mental disorders [4,14]. In this sense, universities should develop and implement specific psychotherapies in Psychological Care Centers (CAP), therefore, it is essential to know how the psychotherapy process is constructed.

The study of the psychotherapeutic process provides information on the actions of the psychotherapist and client to achieve therapeutic goals [15]. Looking in detail at this interaction recognizes the co-construction, interdependent strategies and interventions that facilitate intersubjective change at verbal and nonverbal levels. A descriptive method that studies the interactive process is Conversation Analysis [16].

1.2 Conversation analysis (AC)

In psychotherapy, the relationship between language and therapeutic change was established [17].

Language in psychotherapy is a type of communicative interaction co-constructed in conversation by the joint action of different interlocutors [18]. The AC initiated by Sacks and Schegloff in 1964 studies the organization of communicative interaction in a sequential manner and explains the shared methods of the interlocutors to recognize and understand the verbal and nonverbal in everyday and institutional contexts [19]. Therapeutic interaction in AC perspective has been approached at levels of analysis that integrate the interactional and hierarchical view of interactional linguistics with the ethnography of communication [18,20].

The present study analyzes the interventions of psychotherapists with different years of experience in the treatment of UE of different genders and with mild depression.
and SI, attended at the CAP of an accredited university in the Metropolitan Region of Chile. For this purpose, the sessions were divided into three sequences or time segments, the psychotherapist’s interventions were recognized and counted in constant units of time in all case studies, and gender differences were observed.

2. Method

Descriptive study of multiple cases in the line of interactional linguistics, which leads people to adjust and synchronize their communicative action in different contexts. Mixed method with qualitative procedure of ethnographic observation of the categories of the conversation analysis together with non-parametric statistics that analyze the relationships of the observed categories.

2.1 Participants

The cases for the study were selected from the population of UE s who consult at the CAP of the Universidad Bernardo O’Higgins (UBO). The participants were male and female UE with their respective psychologists who for the purpose of the study are psychotherapists. The CAP was chosen because:

- It has a large flow of UE seeking psychological care.
- It has a psychiatrist that allows diagnoses based on mental classification manuals.
- The UE need specialized psychotherapy, therefore, the study will provide specific therapeutic elements.

Four case studies are projected according to the following criteria.

UE Inclusion criteria:
(a) Studying between the 3rd and 6th academic year, because it involves more demanding and specific contents.
(b) With a diagnosis of mild depression and SI made by a psychiatrist, according to the Mental Disorders Manual in its V version (DSM-V) and indication for psychotherapy.
(c) To initiate psychotherapy at the university’s CAP.

Excluded: UE (university students) who had contact with the researcher; with medium and high complexity diagnoses such as moderate and severe depressive disorders, psychosis, organic disorders, problematic alcohol-drug use and others, because they need care in specialized centers.

Criteria for inclusion of psychotherapists:
(a) Years of experience of the psychotherapist: He/she will be a Clinical Psychotherapist (CP) if he/she has more than 7 years of experience in psychotherapy and a Psychotherapist in Training (PT) if he/she is in professional practice. It is chosen over 7 years because they mark differences in competences and therapeutic skills.
(b) To attend to University Students at the CAP.

2.2 Unit of analysis

This study focuses on two categories of conversation analysis [18,20]: the “psychotherapist’s intervention” that occupies during the therapeutic treatment and the “temporal sequence or segmentation” that divides the sessions into phases and allows a more detailed look at the therapeutic work.

2.3 Analysis procedure

The case studies correspond to UE with mild depressive disorder and SI and their respective psychotherapists.

The units of observation will be the first 5 sessions of the therapeutic process of men and women, which were recorded on audio-video. These sessions were chosen because the therapeutic bond is built, different themes are explored, contents are deepened and subjective changes are produced [4,21,22]. Twenty psychotherapy sessions were recorded for a total of 28.5 hours.

Participants were selected according to inclusion criteria by means of an intentional and active search. We proceeded as follows:
- The Director of the university’s CAP was informed of the study, and psychotherapists were selected and signed the informed consent form.
- From the reason for consultation of the UE, those who were consistent with the study criteria were selected and contacted to explain the study. They signed the informed consent form.

The process involved 8 participants who constituted 4 case studies.

The sessions were segmented into three main time sequences: initiation, which corresponds to the first meeting, to the reception and adherence of the consultant; development, where topics are explored, deepened and therapeutic change is directed; and closing, where the significance of the session is reviewed and agreements are established for future sessions. These temporal sequences may vary according to the client.

In these sequences are the Communicational Exchanges that are created by the psychotherapist-consultant interventions. The interventions are concentrated in five groups which are:

1. Bonding interventions, which are efforts to generate adherence and comfort in the consultant; (2) Expansion interventions, which are different questions that help to transit from the superficial to the deep, expand the knowledge of the subjective world of the consultant and obtain data and information of symptoms, context, thinking, emotions, relationships or others; (3) Chain interventions, which are efforts to articulate the client’s subjective narratives that emerge in the sessions; (4) Change interventions, which are efforts to transform discomfort into well-being; and (5) Explanatory interventions, which clarify the client’s doubts and concerns. Due to the constant movement of the interventions, a continuous observation analysis was carried out, which was recorded with 5-second constant time unit marks throughout the sessions of the 4 therapeutic dyads to determine the total time units of interventions and
the partial time units of interventions that each psychotherapist used in the treatment, in order to then specify units separated by gender, by years of experience and by time segments.

This constant time unit makes it possible to recognize associations, frequencies, duration and proportion of the actual time used in the categories of analysis, and to recognize how psychotherapists use the interventions in the treatment of UE. For the coding of the 20 sessions, the computer software Videograph (Version 4.4.2.30, Rimmele, Germany) and the statistical software SPSS (Version 18, IBM, Armonk, NY, USA) were used, and statistical significance was set at \( p < 0.05 \) a priori, for all comparisons. The observation guideline for sessions used contents already applied in other studies such as semantic concordance, synchrony of thematic blocks and others that made it possible to create groups of interventions [18]. Following the observation pattern, the inter-observer concordance analysis was performed by means of the Kappa index, which showed 0.913 (very good) for the temporal sequences of the session structure and 0.862 (very good) for the psychotherapist’s intervention and also allowed validating new interventions obtained in the empirical observation of the recordings [23]. The concordance analysis was performed on all sessions of each therapeutic dyad.

The association analysis of the observed categories was performed with the Nonparametric Statistic Pearson’s Chi-Square, complemented with Cramer’s V Coefficient with measures of association independent of sample size, whose values range from 0 = absolute absence of relationship, to 1 = perfect relationship. In the social sciences, values above 0.30 indicate a moderately significant association [24]. The cases with statistical significance between the categories were analyzed by observing the boxes of the Corrected Typed Residuals (CTR), with a level of relationship determined at \( Z = \pm 1.96 \).

The film recordings of the sessions were counted every five seconds, allowing the analysis of the study categories: the “psychotherapist’s interventions” in the UE treatment and the “temporal sequences” that divide the session into three phases and provide a wider view of the therapeutic work, as described in the literature [20].

2.4 Ethical considerations

The study during its planning and execution followed ethical research procedures. It was approved by the UBO (Universidad Bernardo O’Higgins) ethics committee, which is certified by the Regional Ministerial Health Office (SEREMI). Informed consent letters were signed.

3. Results

The participants integrated 4 case studies that corresponded to 4 psychotherapeutic couples (Table 1).

In the 20 psychotherapy sessions analyzed, 7456 total units of psychotherapist interventions were counted in a constant time of 5 seconds. Of the total number of time units, 3280 correspond to interventions with a female client and 4176 with a male client. By years of experience, 2446 time units correspond to Clinical Psychotherapist and 5010 correspond to Psychotherapist in training.

There is a statistically significant relationship between the temporal sequences of the session structure and the psychotherapist’s interventions (Chi-square (5, N = 7.456) = 142.9; \( p < 0.001 \)) with moderate strength (Cramer’s V = 0.545), it can be thought that the interventions are independent with the temporal sequences of the sessions. There is a relationship between psychotherapist interventions and UE gender (Chi-square (7, N = 7.456) = 98.4; \( p < 0.001 \)) with moderate strength (Cramer’s V = 0.648) and interventions with psychotherapist years of experience (Chi-square (8, N = 7.456) = 127.3; \( p < 0.001 \)) with moderate strength (Cramer’s V = 0.692). It is possible to think that the psychotherapist’s interventions may be affected by the years of experience and by the gender of the client. When analyzing the distribution of time in the segments of initiation, development and closure, statistically significant differences were observed (Mann-Whitney U = 79.248.78; \( p < 0.001 \)), between the different psychotherapy processes. When comparing the time distribution of the UE, it is observed that they are statistically different (Mann-Whitney U = 29.345.221; \( p < 0.001 \)), i.e., gender could be influencing the organization of time.

We did not assess whether the gender of the psychotherapist affects the organization of time or the interventions, since only male psychotherapists were present.

The analysis of percentages and corrected typified residuals (Table 2), show that more time is spent at the beginning and at the end of the session with men when compared to women. When comparing the time distribution of psychotherapists, it is observed that they are statistically different (Mann-Whitney U = 36.854.477; \( p < 0.001 \)), i.e., the psychotherapist’s years of experience have an impact on the organization of time (Table 3).

As has been said, the sequences or time segments of the sessions contain the communicative exchanges and the interventions of psychotherapists in order to achieve therapeutic change. The interventions fulfill the function of initiating, opening, expanding and closing a communicative exchange between psychotherapist and client, concentrating

<table>
<thead>
<tr>
<th>Table 1. Case studies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
</tr>
<tr>
<td>Female student A</td>
</tr>
<tr>
<td>Female student B</td>
</tr>
<tr>
<td>Male student A</td>
</tr>
<tr>
<td>Male student B</td>
</tr>
<tr>
<td>Total processes</td>
</tr>
</tbody>
</table>

CP, Clinical psychotherapist; PT, Psychotherapist in training.
Table 2. Total times of interventions by gender and by psychotherapists separated into time sequences.

<table>
<thead>
<tr>
<th>Time sequences</th>
<th>Gender</th>
<th>Total</th>
<th>Psychotherapist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>CP</td>
<td>PT</td>
</tr>
<tr>
<td>Initiation</td>
<td>10.7(1.7)</td>
<td>5.5(–1.7)</td>
<td>8.4</td>
<td>9.4(–2.9)</td>
</tr>
<tr>
<td>Development</td>
<td>78.9(–4.7)</td>
<td>84.9(4.7)</td>
<td>81.5</td>
<td>80.8(7.7)</td>
</tr>
<tr>
<td>Closing</td>
<td>10.4(3.1)</td>
<td>9.6(–3.1)</td>
<td>10.1</td>
<td>9.8(2.4)</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total (N)</td>
<td>4.176</td>
<td>3.280</td>
<td>7.456</td>
<td>2.446</td>
</tr>
</tbody>
</table>

( ), Corrected typed residuals; CP, Clinical psychotherapist; PT, Psychotherapist in training; N, Units of time; %, Percentages.

Table 3. Time distribution of the psychotherapists’ interventions in the segments of the session.

<table>
<thead>
<tr>
<th>Psychotherapist</th>
<th>N</th>
<th>Rank mean</th>
<th>Mann-Whitney U</th>
<th>Asymptotic significance (bilateral)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Psychotherapist</td>
<td>2.446</td>
<td>2.126</td>
<td>36.854.477</td>
<td>0.001</td>
</tr>
<tr>
<td>Psychotherapist in training</td>
<td>5.010</td>
<td>2.415</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (N)</td>
<td>7.456</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N, Units of time.

Table 4. Total times by groups of interventions occupied in gender and by psychotherapists with different experience.

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Gender</th>
<th>Total</th>
<th>Psychotherapist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding</td>
<td>26.9(–6.7)</td>
<td>19.1(6.7)</td>
<td>23.2</td>
<td>30.1(–0.7)</td>
</tr>
<tr>
<td>Expansion</td>
<td>5.6(3.1)</td>
<td>10.9(–3.1)</td>
<td>7.9</td>
<td>2.9(2.2)</td>
</tr>
<tr>
<td>Chain</td>
<td>49.7(–5.4)</td>
<td>38.8(5.4)</td>
<td>44.8</td>
<td>51.7(1.3)</td>
</tr>
<tr>
<td>Change</td>
<td>14.4(4.8)</td>
<td>24.2(–4.8)</td>
<td>18.7</td>
<td>11.1(–2.1)</td>
</tr>
<tr>
<td>Explanatory</td>
<td>3.4(–1.9)</td>
<td>7.0(1.9)</td>
<td>5.4</td>
<td>4.2(–1.9)</td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Total (N)</td>
<td>4176</td>
<td>3280</td>
<td>7456</td>
<td>2446</td>
</tr>
</tbody>
</table>

( ), Corrected typed residuals; CP, Clinical psychotherapist; PT, Psychotherapist in training; N, Units of time; %, Percentages.

There is a statistically significant relationship between psychotherapist interventions groups and UE gender (Chi-square (5, N = 7456) = 176.7; p < 0.001) with moderate strength (Cramer’s V = 0.574) and between interventions group and psychotherapist years of experience (Chi-square (8, N = 7456) = 258.6; p < 0.001) with moderate strength (Cramer’s V = 0.611). It is possible to think that psychotherapists’ interventions may be affected by the gender and experience of the treaters. Statistically significant differences (Mann-Whitney U = 156.453.09; p < 0.001) are found in the occupation of time between the different groups of interventions in the psychotherapy process. The comparative analysis of the corrected typed residuals (Table 4) shows that male psychotherapists spend more time on chain, bonding and change interventions, while female psychotherapists spend more time on chain, change and bonding interventions. With respect to years of experience, the clinical psychotherapist spends more time on chain, bonding and change interventions, while the psychotherapist in training spends more time on chain, change and expansion interventions.

4. Discussion

The article analyzes the interventions used by psychotherapists with different years of experience in the treatment of UE of different gender and with a diagnosis of mild depression and SI attended at the CAP of an accredited university. For this purpose, the occupation of time was described and the therapeutic session was divided into 3 sequences or time segments: beginning, development and closing. In the temporal sequences are the communication exchanges that are composed of the interventions that correspond to the discourse or contribution of the participant in the co-construction of the dialogue [20]. It was observed that the interventions present differences in the amount of time they are used according to the gender of the patients and the years of experience of the psychothera-
pist. In this sense, it is possible to think that the diagnosis of mild depression and SI of the UE does not guide the way of using the psychotherapist’s interventions during treatment, but rather the production of interventions is related to the patient’s gender and to the psychotherapist’s years of experience. This is consistent with the overall percentages of interventions, where it is observed that more than 55% are taken up by male patients and only 32% are produced by clinical psychotherapists. This information is important for the psychotherapist and the CAP, as therapeutic goals should take into account the gender and experience of the treating person. However, further research with analytic designs, which include more patients and psychotherapists of different genders, is suggested in order to explore in depth the relationships between the categories.

It should be carefully considered that men need more time at the beginning and end of the session compared to women, since there were few case studies, however, it could be thought that men in Chile need more interventions at the beginning and end of the session in order to feel welcomed and be connected to the next session. This may be related to the culture of our country, since being a man has a great social burden associated with strength, not crying, not complaining and getting out of difficult situations alone, which is reflected in the little attention they receive in mental health centers and in the large number of desertions when compared to women [25]. However, the fact that the clinical psychotherapist spends more time in the opening and closing sequences compared to the psychotherapist in training can be understood as learning as a result of years of experience and can be related to “Reflective Practice” [26], a concept that concentrates the processes of reflection, cultural sensitivity, improvements in the therapeutic relationship and the increase in self-awareness that favors personal and professional change, that is, there is a direct relationship between the years of experience and the way of understanding psychotherapy. In this sense, the clinical psychotherapist has a better understanding of the interventions that the UE needs to remain in psychotherapy. This knowledge is fundamental for adherence and therapeutic continuity; however, it raises questions about the care that psychotherapists in training provide to patients with sensitive diagnoses such as mild depressive disorders and SI, generating new challenges in therapeutic training that should consider greater demands in the processes of personal self-knowledge [27]. This topic requires further exploration.

When analyzing the interventions by gender, it is observed that men spend more time on bonding and chain interventions compared to women. It can be inferred that the men need more time and that the psychotherapist makes more effort for them to express experiences and connect the stories. Differences are also observed in the change and explanatory interventions that take up less time when compared to women, i.e., men do not seek as many explanations for their experiences and that the transition to well-being is made with caution. With great care it can be assumed that working with men requires a different method than working with women, since men in this small study in Chile, first seek to feel very welcomed and to be certain that they are listened to unconditionally, consequently change interventions should be made at the right time, agreeing with studies that highlight comfort and therapeutic climate [28], however, this requires further research. The intervention times of the psychotherapist in training are striking when compared to the clinical psychotherapist, since he uses very little time in the bonding intervention, but a lot of time in the expansion and explanatory intervention, therefore, it can be understood that he delivers little welcome and comfort to the patient, then the question that arises is: Why does the patient not defect? The answer is complex and we do not have the necessary elements to answer.

However, it is possible to assume that the information collected by the psychotherapist about the patient’s symptom and context, together with the explanations offered by the psychotherapist, allow the continuity of the therapy to be maintained; however, it is not possible to project how long this interactive dynamic will last, since we know that the atmosphere of warmth and personal satisfaction are key to maintaining the therapeutic process and change [29]. In addition, we do not know what happens after the 5th session and at what point therapeutic change is achieved, issues that open up questions to be answered in future researches. It is striking that the time spent by the clinical psychotherapist in bonding, chain, change and explanatory interventions are similar to those observed in male patients. This requires new studies that include complete therapeutic processes to recognize how the group of interventions is co-constructed when used by psychotherapists of different genders.

Finally, these results provide basic approximations to gender differences in UE and open new questions that the scientific community and especially the world of clinical psychotherapy should answer.

5. Conclusions

It is concluded that the interventions applied by psychotherapists to the UE with mild depressive disorders and SI attended in the CAP of an accredited university present differences in the utilization throughout the sessions. That the interventions are distributed differently in the sequences or time segments that divide the sessions. That the interventions are different according to gender and the experience of the psychotherapist and that the diagnosis does not provide a pattern of use of the interventions. However, these findings should be considered with caution and care because of the small sample. Finally, new studies that consider new variables and more participants are suggested.

Abbreviations

UE, University Students; SI, Suicidal Ideation; SA, Suicide Attempts; CAP, Psychological Care Centers;
AC, Conversation Analysis; UBO, Universidad Bernardo O’Higgins; DSM-V, Mental Disorders Manual in its V. version; CP, Clinical Psychotherapist; PT, Psychotherapist in Training; N, Units of Time; % Percentages; ( ), Corrected Typed Residuals; SEREMI, Regional Ministerial Health Office.

Author contributions
LB idea, study design and article writing; LB, CN, DB and MV data collection and analysis; LB and MV conclusions.

Ethics approval and consent to participate
Approval was obtained from the ethics committee of the UBO (No. 076) and the participants signed consents. Action protocols were provided in case of any unexpected situation.

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Conflict of interest
The authors declare no conflict of interest.

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