

Psychological Counseling Processes of Prospective Psychological Counsellors: An Investigation of Client-Counsellor Interactions*

Ismail Sanberk^a

Çukurova University

Turan Akbaş^b

Çukurova University

Abstract

The general purpose of this study is to investigate the client-counsellor interaction in the psychological counseling process at the verbal behavior level. The study also aims to analyze the relationship between the behaviors observed in the process with both clients and counsellors' evaluations of sessions and whether changes were observed in clients' lives and behaviors after psychological counseling. The data were collected from 69 senior students in a Department of Psychological Counseling and Guidance in Turkey and from the same number of clients to whom they provided counseling services. The partial sampling method was used because smaller sampling was needed in order to describe successful and unsuccessful therapeutic processes in a more detailed way. The study made use of the "Psychotherapy Interaction Coding System," "Session Satisfaction Scale," and "Changes in Life and Behaviours Scale." Results show that psychological counsellors' display of empathetic and supportive type behaviors are dependent on the participation or cooperation of the client. Both clients and counsellors' satisfaction levels concerning the sessions demonstrated a significant relationship. Moreover, clients and the psychological counsellors' satisfaction levels concerning sessions were positively associated with some of the behaviors that they demonstrated during the process. In terms of the criterion, "changes in life and behaviors," successful and less successful group session satisfaction was found to differ in terms of a number of behaviors displayed during the process. The counsellors in the successful group showed more empathetic and supportive behaviors than the counsellors in the unsuccessful group. While counsellors in the successful group expressed their emotions, informed about changes, and demonstrated participation/cooperation more frequently, they demonstrated less inhibitive type behaviors, which were found to negatively affect the process.

Keywords: Therapeutic relationship • Dialogue • Process research • Evidence-based psychological counseling • Supervision

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a Corresponding author

Assist. Prof. Ismail Sanberk (PhD), Department of Guidance and Psychological Counseling, Faculty of Education, Çukurova University, Adana Turkey
Research areas: Evidence based counselling; Outcome and process studies; Systemic counselling; Repertory Grid Methods; Alienation Email: sanberk@cu.edu.tr

b Prof. Turan Akbaş (PhD), Department of Guidance and Psychological Counseling, Faculty of Education, Çukurova University, Adana Turkey
Email: ozan@cu.edu.tr

Psychological counseling and psychotherapy research have long aimed to contribute to the development and effective use of known therapeutic effect mechanisms (helping skills) in practice. Research on this issue has frequently discussed and searched as to whether the psychological counsellor is effective or whether one specific counseling method is more effective than another. Findings in this direction can be collected under the “outcome research” heading (Schindler, 1996; Strauß & Wittmann, 2000). “Outcome” studies going back many years indicate an abundance of findings which suggest that psychotherapy is both genuinely effective and that a wide variety of different counseling approaches have various effects. No matter which counseling theory is adopted, as stated by Lambert, Bergin, and Garfield (2004), the main purpose is to help the client to feel better. Therefore, it is very important to identify those factors stimulating changes in the client.

Considering the research conducted so far, Grawe (1988) states that actually “the science of psychotherapy” rarely focuses on its own research problems. According to Grawe (1988) and Meyer (1990), the “real problem” is the psychotherapeutic phenomenon itself (things going on); in other words, “how” a change can happen at the end of the psychotherapeutic intervention process. Thanks to procedural developments, both psychological counseling and psychotherapy research have acquired a new dimension, especially since the 1990s (Grawe, 1992; Greenberg, 1991). With these procedural developments, the counseling process has been able to be investigated at the micro analytical (behavioral) level. It is now considered that by discussing the interaction between the client and counsellor in connection with the results of the psychological counseling, a better understanding of the nature of the counseling process can be reached. Which procedural preferences of the counseling process may be investigated is an issue that has long been discussed by researchers (Heppner, Wampold, & Kivlighan, 2008; Sanberk, 2014). With this being said however, the actual number of studies investigating client-counsellor interactions within the counseling process are limited (Gazzola, Iwakabe, & Stalikas, 2003; Greenberg, 2007; Klein & Elliott, 2006; Williams & Hill, 2001).

Grawe (1989) indicates that the effectiveness of the counseling process can no longer be revealed with simple evidence. According to Grawe, it is important not only to know the effect mechanisms in the counseling process, but also which ones cause

change and to what extent they do (Grawe, 1989). For instance, answers to such questions as “Under which conditions do the psychological counsellor’s ‘explanations and instructions’ affect the client more (positively)” and “What concrete contributions can a counsellor make to cause a change in a client’s life and/or behaviors and then help these changes to become permanent?” reveal effort in this direction. As stated by Bastine, Fiedler, and Kommer (1989), the main questions that researchers are trying to answer include “What variables play a role in change?” “What are the indicators showing that a change has occurred?” and “In how many different ways can the process that provokes a change be classified?” However, before finding answers to such questions, it first needs to be determined as to how the interaction between client and counsellor should be observed, in other words, the type of observation should be determined. The interaction in the counseling process can be observed without a standardized tool (directly); a procedural preference in this direction can serve the purpose better understanding the process (Brandl, 2005; Schindler, 1996). Furthermore, the observation’s focus should not be only the client or the counsellor, but should; on the contrary, include both sides interacting with each other. Hence, some researchers have developed various observation systems that enable the reciprocal investigation of client-counsellor interactions (Connolly, Chris, Christoph, Shapell, Barber, & Luborsky, 1998; Schindler, 1989).

Changing the focus of the research from client or counsellor to joint interaction has enabled the counseling process to be examined. Ultimately, both clients and counsellors’ reactions are affected by each other’s reactions, a fact which Bastine et al. (1989) call “transactional causality.” The problem and rationale of the present study are that the counseling process has not been investigated at the micro-analytical (behavioral) level in Turkey and that studies conducted in other countries are limited in number. In this regard, the general purpose of this study is three-fold: (1) to investigate the client-counsellor interaction in the psychological counseling process at the verbal behavior level in terms of co-dependency, (2) to analyze the relationship of the behaviors observed in the process with the session evaluations of clients and counsellors and (3) to record changes in life and behaviors after a client has undergone psychological counseling. The sub-aims in line with this general purpose are as follows:

1. What is the frequency of the psychological counsellor behavior categories in the psychological counseling process?
2. What is the frequency of the client behavior categories in the psychological counseling process?
3. In what proportion do the verbal behaviors of the psychological counsellor affect the probability of client behaviors?
4. In what proportion do the verbal behaviors of the client affect the probability of counsellor behaviors?
5. Are there any significant differences between the conditional (dependent) probability of the psychological counsellor and client behavior categories and the unconditional (independent) probability of the related behavior category?
6. Is there a significant relationship between a client and counsellor's satisfaction levels about the session and the behavior categories in the counseling process?
7. Do the behavior categories of clients and psychological counsellors differ significantly in terms of changes in life and behaviors criteria according to being in a more successful or a less successful group?
8. Does the consistency of client and psychological counsellor behaviors (dependency probability) demonstrate any significant differences in terms of changes made in one's life and behaviors?

Method

Research Design

The general purpose of this study is to investigate the client-counsellor interaction and to analyze its effects on both the psychological counseling processes and its outcomes. In line with this purpose, each behavior of the client and psychological counsellor was first categorized and investigated in the framework of "reciprocal effect." Behaviors in the psychological counseling process were coded using observation method. The study is an "observation research," one of the empirical research methods (Kazdin, 1994). Therefore, although the relationship between the variables was observed, they were not manipulated. On the other hand, considering the sub-aims of the study, more than one research model was utilized. The study was conducted in three phases. *The first phase* consisted of a descriptive situation identification used to

identify the subjective session evaluations (in line with the individual counseling course) of clients and prospective psychological counsellors who, at the time of the study, were attending an undergraduate degree program in the Psychological Counseling and Guidance Department of a university in Turkey. *The second phase* aimed to present the relationship clients and counsellors' subjective evaluations along with outcome (success) criteria. For this reason, the *correlation type relational screening model* was chosen for the second phase of the process.

As for the third phase, prospective counsellors' individual psychological consultation practices were divided into two groups, the criterion of which being that they had provoked a change in their clients and whose aim was to describe the therapeutic interaction process of these two groups (those which enhanced change and those which did not). The model, "Process-outcome research with different comparison (measurement) levels," was utilized because it is one of the research models specific to psychological counseling and because it reveals the differences between two processes. This research model also enables the investigation of concrete behaviors in the course of psychological counseling. Both the current behaviors in the sessions and the subjective lives of clients and counsellors were analyzed. In this direction, how the evaluations and verbal reactions of clients and counsellors in relation to the sessions and the counseling outcomes (i.e., provoking changes in clients' lives and behaviors) are associated have been described.

Research Group

The research group of the study consists of senior students in the Psychological Counseling and Guidance Department studying in a university in Turkey and the clients to whom they provided counseling services. The participants consisted of 74 prospective psychological counsellors and the same number of clients, thereby equaling a total of 148 individuals. Although the study aimed to reach the findings regarding the outcome of psychological consultation out of all the data obtained from the participants, 5 counsellors did not complete some of the items in the "Changes in Life and Behaviours Scale" (CILB), which was one of the criteria that was used to evaluate the outcomes of psychological counseling. Thus, no total score could be calculated for these participants. Accordingly, the scores of 69 participants obtained from the CILB were analyzed. Since both the observation of the psychological counseling at the behavioral level and the

categorization of these behaviors were done using the “Changes in Life and Behaviours Scale” as a criterion, the partial sampling method was utilized. Accordingly, 10 of the most successful and 10 of the least successful counseling interactions from a total number of 20 consultation processes were analyzed at the counsellor and client behaviors level. While clients’ average age was 20.6, that of psychological counsellors was 22.5. Of all the clients, 68% were female and 26% were male; however, since four clients did not indicate their gender, the real ratio is different. Gender distribution of the prospective psychological counsellors was 70% female and 30% male. The reasons that clients sought consulting included “personal-social problems” (30.8%), “sense of self” (26.9%), “problems about the opposite sex” (23.1%) and “familial problems” (19.2%); 8 clients did not specify any problems.

Data Collection Tools

The Psychotherapy Interaction Coding System (PIC) (Das Codiersystem zur Interaktion in der Psychotherapie – CIP / Schindler, 1989): PIC is a category system based on verbal response modes in the psychological consultation process. The decision as to which categories were to be used was based on the main premises of the behavioral approach regarding counsellor and client behaviors (Kanfer & Grimm, 1980; Kanfer & Scheft, 1988). PIC is composed of two independent sub-systems that deal with counsellor and client behaviors (Schindler, 1989). Table 1 demonstrates the categories in PIC.

In addition to the behavior categories above, three common categories are also included for each main category; these are “break,” “other,” and “listening.” Thus, PIC consists of 20 categories for counsellors and 19 categories for clients.

The PIC categories not set forth as a result of some statistical calculations; all categories were identified completely as a result of logical reasoning. However, as it can be seen, as far as possible, all the counsellor and client behaviors were covered in a comprehensive and detailed way. In this way, each behavior category in the therapeutic interaction was put forward in a detailed and distinguishing way, using frequencies and percentages. These categories, due to their being relatively higher in number, surely bring with them some amounts of negativity. One of them is the probability of each category having a low prevalence in a given interaction process. This problem can be overcome by integrating categories similar in content under a “parent category”. Although such

integration does not need to happen in the calculation of frequencies and percentages, the number of observations should be sufficient so as to be able to perform a ranking analysis on the data (for instance; a Markov analysis). Parent category behaviors exhibited by psychological counsellors are support, exploration, explanation, instruction and classification while those of clients are problem description, notification about changes, short and simple responses, participation/cooperation, enlightenment, and inhibitive behaviors (Schindler, 1989). If needed, these categories can be further reduced. According to Schindler (1989) for example, the categories of exploration-explanation, empathy-support, instruction-classification may be integrated, thereby reducing all counsellor behaviors to a mere three behavior categories. For clients, the categories of “problem identification” and “short response” were combined. In the second total category, all behaviors, with the exception of inhibitive behaviors, were brought together under the same roof: “enterprise/cooperation.” However, as “inhibitive behavior” forms a category by itself, it was taken as another parent category (Schindler, 1989, 1991).

Table 1
Categories in PIC

Counsellor Categories	Client Categories
1. Empathy – Short Emotional Speech – Reformulation – Understanding	1. Emotional Disclosure – Description of positive feelings – Description of positive feelings
2. Support – Encouragement – Positive Feedback – Minimal Support	2. Problem Description – Case notification – Specific Problem
3. Exploration – Information Questions – Summarization	3. Simple Responses – Short Responses
4. Explanation – Identification of the case-topic – Construction – Explanation – Self-disclosure	4. Notification about changes – Self-test trials – Success notifications – Comprehension
5. Instruction – Direct Guidance – Giving Assignment	5. Participation/Cooperation – Desire/purpose design – Confidence about the future – Suggestions about changes
6. Classification – Confrontation – Interpretation – Criticism	6. Enlightenment – Talking about therapeutic relationship – Information questions/asking for suggestions
	7. Inhibitive Behavior – Rejection/Avoidance – Criticism/Rebellion – Devotion

Evaluation of the Session-Satisfaction Scale: The “Session Evaluation Scale” (Stundenbeurteilung), developed by Schindler, Hohenberger-Sieber, and Hahlweg (1989), measures both psychological counsellor’s and client’s satisfaction about the counselling sessions in which they participated. The scale includes both client and psychological counsellor forms, both of which are in the form of a 4-point Likert scale (1 = not at all, 2 = a little, 3 = somewhat, 4 = completely) and contain 20 items each. The scale can either be applied after each session has been concluded or following the first and/or subsequent selected sessions. An item at the end of the test evaluates the global (general) level of satisfaction about the session. On the other hand, two open-ended questions help participants to describe the beneficial and inhibitive aspects of their lives. Another open-ended question identifies cases apart from psychological sessions that participants thought beneficial for them. In addition, the total score obtained from the 20 items gives information about the sessions. While a score of 20 points, the minimum score able to be obtained from the scale, indicates dissatisfaction about the session, 80 points, the maximum score able to be obtained from the scale, indicates high satisfaction about the session. It took roughly 5 minutes on average to complete the evaluation.

The Session Evaluation Scale and Counsellor Forms were adapted into Turkish by Sanberk (2010), and the internal consistencies of the scales were .94 and .91 for the “Session Evaluation Scale-Client Form” and “Session Evaluation Scale-Counsellor Form,” respectively. These values indicate that the Session Evaluation Scale Client and Counsellor Forms are reliable. The internal consistency in the original study was .88 for the Client form and .93 for the Counsellor form of the Session Evaluation Scale. As the values obtained in the present study were close to those of the original scale, it may be concluded that both of the scale’s forms have a sufficient level of reliability.

Changes in Life and Behaviours Scale: This scale which was developed by Zielke (1978) and Zielke and Kopf-Mehnert (2001). The CILB (Fragebogen zur Veränderung des Erlebens und Verhaltens-VEV) aims to identify whether there has been a change in the client’s life and behaviors after psychological counseling. Based on client-centred theory, this scale aims to obtain information about the direction and power of the change after counseling. The scale contains 42 items that express change. Some examples include “I now know better what I can do/ what I want to do,” and “I feel more self-sufficient

in completing my duties.” The items are scored on a 7-point scale with higher scores indicating severe positive changes. Possible scores able to be obtained from the scale range between 42 and 294 points. The internal consistency of the Changes in Life and Behaviours Scale was found to be .97 in the original study. The Turkish adaptation of the scale was performed by Sanberk (2010) and the internal consistency was found to be .96. Moreover, an item analysis conducted to gauge reliability indicates that with the total scores obtained, the items displayed correlation ranging between .27 and .80. Such a high internal consistency shows that the scale is reliable. The original scale’s test-retest measurements for which the CILB was developed were calculated in 8-week intervals and found to be .61. Sanberk (2010) measured the test-retest reliability co-efficient as .72 in 5-week intervals. This correlation indicates that the scale is stable. Criterion-related validity was performed using the Session Evaluation Scale-Client Form. The results were found to be .43 after using the CILB’s Session Evaluation Scale-Client Form.

In the scope of the criterion-related validity, positive correlations were calculated between statements based on whether they found the counseling beneficial (.59) and whether there was a decrease in clients’ symptoms/complaints (.65). The CILB’s distinctiveness was also identified using both “internal criterion,” and an item analysis based on the differences between the mean scores of the parent and sub groups. In this regard, both the CILB’s total scores and the scores that participants had obtained from each item in the scale were ranked in ascending order for 30 clients; 27% from the low-scores end and 27% from the high-scores end of the distribution. While the mean score for the 27% from the low scores end was found to be 198.6, that of the high scores was found to be 282.3. The *t*-value obtained from the comparison of the two groups was found to be -9.84, which was significant at a .01 significance level. It was also investigated as to whether there existed a difference between the mean scores of the high and low groups at the item level. The results show that 40 CILB items (except for two items) could distinguish who scored high and who scored low. Except for two items, all items were significant at a level of .01.

Analysis of the Data

The data were analyzed using SPSS 11.5 and Microsoft Excel. The relationships between prospective psychological counsellors’ and clients’ evaluations about the sessions and their behaviors

in the counseling process were analyzed by calculating the Pearson correlation coefficient. Independent groups' t-test were used to ascertain whether there were differences in the counsellor and client evaluations between both more and less successful groups by gauging changes in the "life and behaviors" criterion.

In addition to this statistical comparison, both counseling processes were analyzed at the verbal behavior level. The "Psychotherapy Interaction Coding System" (PIC) developed by Schindler was used to code the verbal behaviors in the therapeutic process. This coding system consists of 20 observation categories for counsellor behaviors and 19 observation categories for client behaviors. Two observers working in tandem with the researcher observed each behavior according to the PIC with the goal of identifying the reliability level of the observation data. Kiesler (1973) states that observing the complete psychological counseling process or even a whole session could be difficult. As such, researchers tend to limit themselves to a single section in the process (as cite in Plath, 1998). Accordingly, the present study has not investigated the entire counseling process. Instead, some pre-determined sections regarding the process were investigated. In this regard, only 15 minutes of sessions (the first, middle and last 5 minutes) were considered in terms of the observation categories in the PIC. Thus, 15 minutes of 7 first psychological counselling sessions (totaling 105 minutes), of 7 second psychological counselling sessions (totaling 105 minutes) and of 6 final psychological counseling sessions (totaling 90 minutes) were chosen. In other words, out of a total of 900 minutes from 60 psychological counseling sessions, 300 minutes were observed; the aim of which was to determine whether an agreement existed among observers. The Kappa coefficient for the client behavior categories was found to be .77 in the first session, .78 in the second session, and .78 in the last session. As for the Kappa coefficient for the psychological counsellor behavior categories, it was found to be .78 in the first session, .79 in the second session and .80 in the last session.

A Kappa co-efficiency of over .70 indicates consistency among observers' views. Thus, studies investigating client-counsellor interaction in the psychological counseling process display similarity with the present study in terms of the reliability of the observation data (Chamberlain, Patterson, Reid, Kavanagh, & Forgatch, 1984; Hill, 1986; Schindler, 1989, 1991). Following the coding of the client and counsellor behaviors in terms of the

categories in the PIC, a Mann-Whitney-U-Test was used to determine whether client and counsellor behaviors in more and less successful groups were different. An analysis of the psychological counseling process should include a dynamic description based on time. Such an analysis of the data obtained from repeated observations is performed using a time series analysis. An accurate interpretation of specific events in a time series analysis is evaluated by looking at previous and subsequent events in their own context (Brandl, 2005). A Markov analysis is appropriate in a series composed of qualitative nominal data with sequential dependence (Czogalik & Hettinger, 1990). The main reason for choosing this type of analysis is that the concept of process is defined circumstantially. In other words, the probability of the occurrence of an event in a time series depends on the event that happened before it. The number of previous events that are considered expresses the degree of order belonging to a process. If a single previous event is taken into consideration when calculating the probability belonging to an event, a 1st order Markov chain is mentioned; if the previous two events are taken into consideration, then a 2nd order Markovchain is mentioned (Czogalik & Hettinger, 1990; Schindler, 1991).

Hypotheses to the following two questions were tested using a 1st order Markov chain analysis: (1) "To what extent does a specific psychological counsellor behavior identify with which client behavior?" and (2) "To what extent does a specific client behavior identify with which counsellor behavior?" In order to perform such an analysis, a transition probabilities matrix was calculated since it is a prerequisite for performing Markov chain analyses. Once the transition probabilities are removed, whether conditional probability displays significance according to observation frequency can be determined by calculating the *z*-value. With the *z*-value, it is possible to calculate whether the fact that two behaviors coincide in a series (conditional probability) significantly differentiates according to unconditional probability.

Findings

This section describes the frequency of each behavior category for counsellors and clients separately. Frequencies and percentages of the observed behaviors are limited by the fact that only three sessions of the counseling process were observed, these being the first, second and final sessions. In addition, findings related to how

frequently such behaviors were manifested are limited by the length of time (approximately 300 minutes) that clients and counsellors' interactions were observed and verbal reactions recorded.

With the above in mind, the interactions in both the more and less successful psychological counseling processes were described separately in terms of success criterion. As a result, the percentages of each parent category within both total activity and verbal activity were calculated.

Table 2
Frequencies and Percentages of Client Behavior Categories in PIC for each Session (n = 20)

	1 st Session		2 nd Session		Last Session	
	f	%	f	%	f	%
Description of the positive feelings	19	2.2	29	3.3	29	2.8
Description of the negative feelings	42	4.9	66	7.4	39	3.8
Case notification	247	28.6	272	30.7	265	25.9
Specific problem	173	20.0	77	8.7	40	3.9
Short response	235	27.2	238	26.8	311	30.4
Self-test trials	10	1.2	20	2.3	11	1.1
Success notification	5	0.6	9	1.0	49	4.8
Comprehension	14	1.6	42	4.7	52	5.1
Desire/Goal design	22	2.5	14	1.6	8	0.8
Confidence about the future	6	0.7	8	0.9	14	1.4
Suggestions about change	6	0.7	17	1.9	33	3.2
Talking about therapeutic relationship	16	1.9	12	1.4	47	4.6
Asking for information questions/suggestions	10	1.2	8	0.9	8	0.8
Rejection/Avoidance	-	-	4	0.5	10	1.0
Criticism/Rebellion	-	-	3	0.3	17	1.7
Devotion	10	1.2	14	1.6	26	2.5
Break	3	0.3	8	0.9	9	0.9
Other categories	45	5.2	46	5.2	54	5.3
Total	863	100	887	100	1022	100

Client Categories: The most frequently demonstrated client behaviors in all three sessions were "Case Notification" (talking about the past or expressing opinions about the past) and "short responses." While the proportion of expressing a "specific problem" was 20% in the first session, it fell to 8.7% in the second session and continued to decrease to 3.9% in the last session. The prevalence of the description of positive and negative feelings was similar in all three sessions.

When all three categories that express change (self-test trials, success notification, and comprehension/awareness) are analyzed, although the two behaviors

of "success notification" and "comprehension" showed an increase in the oncoming phases of the process, no significant difference was observed. Despite the fact that this result is surprising, calculations made on frequencies and percentages of the behavior are related to the sample from which the data were obtained.

Here, the data based on interactions were analyzed without discriminating between successful and unsuccessful groups. Findings as to whether group behaviors differed in terms of success criteria are mentioned in the following sections. For the same reason, contrary to expectations, all three dimensions expressing that the client cooperates or shows responsibility (desire/purpose design, "suggestions about change", "confidence about the future") did not show an increase toward the end of the counseling process. On the other hand, inhibitive or hesitant behaviors (rejection/"criticism," "devotion") showed a slight decrease at the end of the process.

Psychological Counsellor Categories: An analysis of whether counsellor behaviors differed proportionately according to sessions indicates that the counsellor behavior categories of "self-disclosure," "interpretation," "positive feedback," and "summarization" experienced a relative decrease

Table 3
Frequencies and Percentages of Counsellor Behavior Categories in PIC for each Session (n = 20)

	1 st Session		2 nd Session		Last Session	
	f	%	f	%	f	%
Short emotional speech	24	3.0	30	3.7	37	3.7
Reformulation	230	28.9	224	27.3	258	26.0
Understanding	8	1.0	3	0.3	2	0.2
Encouragement	1	0.1	1	0.1	8	0.8
Positive feedback	5	0.6	6	0.7	46	4.6
Minimal support	108	13.6	106	12.9	121	12.2
Information questions	256	32.2	267	32.6	206	20.8
Summarization	55	6.9	83	10.1	134	13.5
Identification of the event (topic)	12	1.5	6	0.7	12	1.2
Construction	53	6.7	11	1.3	18	1.8
Explanation	-	-	4	0.5	3	0.3
Self-disclosure	8	1.0	18	2.2	61	6.2
Direct guidance	13	1.6	17	2.1	29	2.9
Giving assignment	3	0.4	7	0.9	4	0.4
Confrontation	4	0.5	7	0.9	4	0.4
Interpretation	14	1.8	30	3.7	43	4.3
Criticism	1	0.1	-	-	5	0.5
Total	795	100	820	100	991	100

toward the final session. On the other hand, “information questions” and “construction” were found to decrease proportionately in the final session when compared to the first two sessions. Throughout the process, the behavior categories of “short emotional speech,” “reformulation,” “understanding,” “encouragement,” “minimal support,” “identification of the event/topic,” “explanation,” “giving assignment,” “confrontation,” and “criticism” were observed more or less in the same proportion throughout the process.

Findings in Relation to the Flow of the Conversation

Findings in relation to the frequencies of both client and psychological counsellor behaviors have been presented above. However, these findings do not enable one to obtain information about how client and counsellor behaviors affect each other’s speech. At this point, what the study tries to discover is which psychological counsellor behavior category determines which client behavior, and to what extent. For this, a “Markov Chain Analysis” was utilized.

In order to perform a successful Markov chain analysis, each observed behavior exhibited by both clients and counsellors during the 300-minute counselling process was utilized. A total of 2,319 observation units formed the data base needed to perform the Markov analysis. In order to obtain a sufficient number of observations, each behavior observed and then categorized was re-evaluated in terms of parent behavior categories in PIC, with the number of categories being limited to a minimum. As a result, among the parent behavior categories obtained included 7 client behaviors and 6 counsellor behaviors. The next step aimed to calculate which counsellor behavior category determines which client behavior, and to what extent. Once this was done, it became possible to determine what type of reaction

a counsellor might give to any specific behavior on the part of his/her client. Probability tables in relation to these data are called transition probabilities table. First, the transition probabilities matrix should be calculated in preparation for performing a Markov chain analysis. Once the transition probabilities table is removed, it can be determined as to whether conditional probability displays significance according to the behavior’s prevalence by calculating the z-value. For significance, with the z-value, it is possible to calculate whether the probability of two behaviors occurring together (conditional probability) differ at a significant level according to unconditional probability (Revenstorf, Hahlweg, Schindler, & Vogel, 1984).

Empathy: An analysis of Table 4 shows that there is a .10 probability that the client will talk about his or her emotions after the psychological counsellor displays empathy toward the client. The probability of these two behaviors occurring together (conditional probability) when compared to the unconditional probability, has a significance level of .01 ($z = 3.09$). Similarly, the probability that empathy and inhibitive type behaviors occurred together displayed a significant, negative difference at a level of .05 ($z = -2.03$). In other words, it was found that the more empathy behaviors demonstrated by the psychological counsellor, the less rejection/avoidance, criticism/rebellion and devotion behaviors the client showed. No significant differences were observed between empathy and the probability of notification about changes ($z = 1.08$), cooperation ($z = 1.87$), comprehension ($z = -.74$), problem description ($z = -.26$) and short/simple response ($z = -.60$) occurring together according to unconditional probability.

Support: An analysis of Table 4 indicates that in 63% of cases, the client will describe his/her problems

Table 4
1st Order Transition Probabilities of Parent Behavior Categories
(Psychological Counsellor Categories t; Client Categories t+1)

Time Point t + 1		ED	PD	SR	NC	C/P	CP	IB
Time Point t	Empathy	.10 ⁺ (74)	.41 (311)	.31 (232)	.08 (60)	.05 (40)	.02 (19)	.02 (13)
	Support	.08 (27)	.63 ⁺⁺⁺ (224)	.12 ⁻ (44)	.09 (34)	.02 (7)	.03 (11)	.02 (8)
	Exploration	.06 (55)	.40 (359)	.36 ⁺ (330)	.07 (67)	.05 (44)	.03 (27)	.02 (23)
	Explanation	.08 (12)	.17 ⁻ (27)	.59 ⁺⁺⁺ (92)	.03 (5)	.02 (4)	.08 ⁺ (12)	.02 (4)
	Instruction	.06 (4)	.10 ⁻ (6)	.57 ⁺ (35)	.03 (2)	.03 (2)	.10 ⁺ (6)	.10 ⁺ (6)
	Classification	.05 (5)	.46 (43)	.22 ⁻ (21)	.04 (4)	.03 (3)	.04 (4)	.14 ⁺⁺⁺ (13)
	Unconditional Proportion	.07	.42	.32	.07	.04	.03	.03
	f	177	970	754	172	100	79	67

$z \geq 1.96 - 3.0$ +/- ED = Emotional Disclosure ; PD = Problem Description; SR = Short Response; NC = Notification about Changes; C/P = Cooperation/ Participation; CP = Comprehension; IB = Inhibitive Behavior
 $z \geq 3.01 - 5.99$ +/+ -
 $z \geq 6.0$ +++/- - -

after receiving support from the psychological counsellor. The probability of these two behaviors occurring together (conditional probability) when compared to the unconditional probability is significant at a .001 level ($z = 8.05$). Similarly, the probability of support and short response behaviors occurring together was found to be negatively significant at a .001 level ($z = -7.92$). Among those behaviors paired with counsellors' display of *support* found not to differ significantly according to unconditional probabilities were emotional disclosure ($z = .45$), notification about changes ($z = 1.90$), cooperation ($z = -1.95$), comprehension ($z = .11$) and inhibitive behaviors ($z = -.82$).

Exploration (Research): The probability that a client will provide a short answer after s counsellor exhibits an exploration type behavior was found to be 36%. When the probability of these two behaviors occurring together (conditional probability) was compared to the unconditional probability, it was found to be significant at a level of .05 ($z = 2.88$). Among those behaviors paired with counsellors' display of *exploration* found not to differ significantly according to unconditional probabilities were emotional disclosure ($z = -1.09$), problem description ($z = -1.45$), notification about changes ($z = .47$), cooperation ($z = 1.32$), comprehension ($z = -.03$) and inhibitive behaviors ($z = -.81$).

Explanation: The probability that a counsellor's explanation type behaviors are followed by a short response or comprehension/enlightenment on the part of a client was found to be 59% and 8%, respectively. The probability that *exploration* occurs together (conditional probability) with *short response* and *comprehension* type behavior was found to have a significance level of .001 ($z =$

7.22) for the former and .01 ($z = 3.44$) for the latter when compared to the unconditional probability. Similarly, the probability that explanation and description behavior types occur together was found to be negatively significant at a level of .001 ($z = -6.25$). Among those behaviors paired with counsellors' display of *explanation* found not to differ significantly according to unconditional probabilities were emotional disclosure ($z = .34$), problem description ($z = -1.45$), notification about changes ($z = -1.85$), cooperation ($z = -.91$), and inhibitive behaviors ($z = .32$).

Instruction: While the probability that a counsellor's display of instruction type behaviors is followed by a short response was 57%, the probability that comprehension/enlightenment or inhibitive type behaviors followed were both found to be 10%. The probability that instruction occurs together with a short response was found to have a significance level of .01 ($z = 4.25$), .01 ($z = 3.13$) for comprehension, and .01 ($z = 3.13$) for inhibitive type behaviors when compared to the unconditional probability. In addition, it was found that a client's demonstration of description of instruction type behaviors ($z = -5.09$) differed significantly from the unconditional probability at a level of .01. Among those behaviors paired with counsellors' display of *instruction* found not to differ significantly according to unconditional probabilities were emotional disclosure ($z = .13$), notification about changes ($z = -1.14$), and cooperation ($z = .29$).

Classification: The probability that a counsellor's classification type behaviors (confrontation, interpretation, criticism) was followed inhibitive type behaviors on the client's part was 14%. The probability that classification and inhibitive type

Table 5
1st Order Transition Probabilities of Parent Behavior Categories
(Client Categories t; Psychological Counsellor Categories t+1)

		Time Point t + 1					
		EP	SP	EL	EP	IN	CL
Time Point t	Emotional Disclosure	.52 ⁺⁺ (94)	.14 (26)	.24 ⁻ (44)	.04 (8)	(-)	.05 (9)
	Problem Description	.39 ⁺⁺ (376)	.23 ⁺⁺⁺ (229)	.28 ⁻ (274)	.03 ⁻ (35)	.01 ⁻ (14)	.05 (45)
	Short Response	.20 ⁻⁻⁻ (144)	.07 ⁻⁻⁻ (48)	.54 ⁺⁺⁺ (390)	.11 ⁺⁺ (83)	.04 ⁺ (32)	.03 (22)
	Change-notification	.47 ⁺⁺ (79)	.15 (26)	.26 (44)	.06 (10)	.02 (3)	.03 (5)
	Cooperation	.37 (37)	.30 ⁺⁺ (30)	.24 (24)	.07 (7)	.02 (2)	.01 (1)
	Comprehension	.25 (22)	.10 (9)	.27 (23)	.28 ⁺⁺⁺ (24)	.05 (4)	.05 (4)
	Inhibitive Behavior	.28 (20)	.07 (5)	.24 (17)	.08 (6)	.11 ⁺⁺ (8)	.22 ⁺⁺⁺ (16)
	Unconditional Proportion	.33	.16	.35	.07	.03	.04
f		772	373	816	173	63	102
$z \geq 1.96 - 3.0$ +/-		EP = Empathy; SP = Support; EL = Exploration; EP = Explanation;					
$z \geq 3.01 - 5.99$		IN = Instruction; CL = Classification					
$z \geq 6.0$		+++/- - -					

behaviors occur together was found to be significant at a level of .001 ($z = 6.22$) when compared to the unconditional probability. In addition, there was a significant difference between classification and short response type behaviors at a level of .001 in a negative direction ($z = -9.03$). On the other hand, the conditional probability of a counsellor's classification type behaviors being followed by emotional disclosure ($z = -.61$), notification about changes ($z = -1.02$), cooperation ($z = -.38$), comprehension ($z = .74$) and problem description ($z = .83$) were found to significantly differ from unconditional probabilities.

Emotional Disclosure: As seen in Table 5, the client's description of positive and negative feelings was followed by the counsellor's empathy behavior 52% of the time. The probability that these two behaviors might occur together was found to be significant at level of .01 ($z = 5.41$) when compared to unconditional probability. In addition, it was found that emotional disclosure and exploration behavior types displayed a significant difference at a level of .01 ($z = -3.01$) when compared to the unconditional probability. On the other hand, the conditional probabilities of a counsellor's display of support ($z = -.60$), explanation ($z = -1.36$) and classification ($z = .68$) behaviors occurring together with client's emotional disclosure were found to differ significantly from its unconditional probabilities. As the instruction behavior of the counsellor was not observed after the client's emotional disclosure behavior, both the conditional probability of this behavior category and z-score were not calculated.

Problem Description: As seen in Table 5, a client's display of description type behaviors was followed by empathy 39% of the time and by support 23% of the time. However, in those cases when a client describes a problem, the counsellor does not demonstrate exploration type behaviors 28% of the time, explanation type behaviors 3% of the time, and instruction type behaviors 1% of the time. The conditional probability of the problem description-empathy pair was found to be significantly different at a level of .01 ($z = 3.74$) from its unconditional probability, .001 ($z = 6.41$) for the problem description-support pair, .01 ($z = -4.47$) for the problem-description-exploration pair, and .05 ($z = -2.85$) for the problem description-instruction pair. However, the counsellor's display of classification type behaviors ($z = .99$) following a client's display of problem description type behaviors did not differ significantly from the unconditional probability of the classification behavior.

Short Response: It was found that after the client's short and simple responses, all the psychological counsellor behaviors except for that of classification differed significantly from their unconditional probabilities. Accordingly, the behavior types of empathy ($z = -7.40$), support ($z = -6.82$), and exploration ($z = 10.82$) were found to be significant at a level of .001. Explanation ($z = 4.78$) and instruction ($z = 2.28$) type behaviors displayed significant differences. After a client's short response, the probability that the counsellor will exhibit exploration, explanation and instruction type behaviors increases whereas the probability of showing support type behaviors decreases.

Notification about Changes: The probability that a counsellor might give an empathetic reaction was significant at a level of .01 and differed from the unconditional probability exhibiting empathy type behaviors after the client displays self-test trials, success notification and gaining insight type behaviors which represent notification about changes ($z = 3.93$). In other words a counsellor follows with empathic behaviors 47% of the time after his/her client displays behaviors about change. Similarly, although the consecutiveness of notification about changes-exploration pair was significant at a level of .05 ($z = -2.34$), it displays just the opposite result of this case. A client's notification about changes was not followed by the counsellor exhibiting exploration type behaviors 26% of the time. Notification about changes was not significantly followed by support ($z = -.15$), explanation ($z = -.51$), instruction ($z = -.91$) or classification type behaviors ($z = -.66$).

Cooperation/Participation: In order for the therapeutic process to be a success, a client's cooperation and participation is of utmost importance. After a client displayed cooperation type behaviors, the counsellor showed such support type behaviors as offering words encouragement, giving positive feedback and/or providing minimal support behaviors and was found to differentiate from the unconditional probability of support type behaviors at a level of .01. Psychological counsellors demonstrate support type behaviors after their client demonstrates cooperation type behaviors 30% of the time. The consecutiveness of these two behavior types occurring together was found to differ from the unconditional probability of exploration type behaviors at a significance level of .05 ($z = -2.37$). Due to the fact that it is of negative significance, it can be said with 24% probability, that a counsellor may not show exploration type

behaviors after a client's display of cooperation type behaviors. The consecutiveness that cooperation was followed by empathy ($z = .78$), explanation ($z = -.03$), instruction ($z = .60$) and classification ($z = -1.54$) type behaviors did not differ significantly from instances when psychological counsellors demonstrated these behaviors independently.

Comprehension: After the client's display of comprehension type behaviors, the probability that the counsellor demonstrated explanation type behaviors was found to differ according to the independent or unconditional probability of explanation type behaviors at a significance level of .001 ($z = 7.60$). Psychological counsellors were found demonstrate explanation type behaviors 28% of the time after the client talked about the therapeutic relationship, requested information or asked for suggestions from the counsellor. However, it was found that after a client displayed comprehension/enlightenment type behaviors, counsellors' display of empathy ($z = -1.46$), support ($z = -1.40$), exploration ($z = -1.60$), instruction ($z = .90$) and classification ($z = .31$) type behaviors did not differ significantly from their unconditional probabilities.

Inhibitive Behavior: It was found that after a client displayed rejection/avoidance, criticism/rebellion and/or devotion type behaviors, counsellors' display of such instruction type behaviors as guiding and giving assignments differed from this behavior type's unconditional probability at a level of .01 ($z = 4.63$). Similarly, after a display of inhibitive behaviors, counsellors' demonstration of confrontation, interpretation and/or criticism behavior types were found to differ significantly at a level of .001 from these types of behaviors' unconditional probabilities ($z = 7.89$). These findings indicate that when counsellors display classification type behaviors, clients follow with a display of inhibitive behaviors 22% of the time. On the other hand, after a client displayed inhibitive type behaviors, psychological counsellors were least likely (5%) to demonstrate exploration type behaviors ($z = -2.03$). When compared to their unconditional probabilities, significant differences were not observed in counsellors' displays of empathy ($z = -.94$), support ($z = -.81$) and explanation ($z = .44$) type behaviors after a client demonstrated inhibitive type behaviors.

The Relationship between Psychological Counsellors and Clients' Session Evaluations

Upon an examination of the evaluations made by clients and counsellors of the same session,

it was found that a correlation of medium level significance exists. More specifically, a 63% shared satisfaction rate was found between clients and counsellors for the same counselling session ($p < .01$). This finding indicates that both clients and counsellors had almost parallel expectations from and evaluation criteria for counselling sessions.

The Relationship between Behaviors Exhibited in the Psychological Counseling Process and Session Satisfaction

Considering that there might be a relationship between the behaviors in the psychological counseling process and session evaluation (satisfaction), correlation co-efficiency was calculated and reported below (see Table 6).

Table 6
Correlations between Session Satisfaction and Parent Behavior Categories

Behavior Categories	Session Evaluation (C)	Session Evaluation (PC)
Empathy	.40	.36
Support	.30	.09
Exploration-Research	.18	.09
Explanation	.49*	.18
Instruction	.04	-.01
Classification	-.49*	-.09
Emotional Disclosure	.42	.72**
Problem Description	.06	.14
Short Response	.42	.05
Notification about Changes	.58**	.24
Cooperation/Participation	.32	.33
Enlightenment	.13	-.02
Inhibitive Behavior	-.46*	-.01

** .01, * .05.

C = Client; PC = Psychological Counsellor

Table 6 demonstrates which behaviors are associated with the client and counsellor's impressions about one session. Client satisfaction about a session displays a negatively significant relationship with counsellors' displays of such classification type behaviors as confrontation, interpretation and/or criticism ($r = -.49$; $p < .05$). On the other hand, it was found that there was a significant correlation between when a counsellor exhibited such explanation type behaviors as constructing the process, expressing herself/himself, and identifying the event/topic and the clients' satisfaction about the session ($r = .49$; $p < .05$). Clients' impressions about the session might not be based solely on counsellors' behaviors, but could also be influenced by the behaviors that they exhibited

during the session. Specifically, a client's display of behaviors reflecting *change*, including self-test trials, success notification and gaining insight was found to be positively related with satisfaction levels about the session ($r = .58; p < .01$). On the other hand, counsellors' behaviors that were found to negatively affect the process were rejection/avoidance, criticism/rebellion and devotion. All of these behaviors showed a significant negative correlation in clients' evaluations about the sessions ($r = -.46; p < .05$). Psychological counsellors' satisfaction levels concerning sessions were found to be related only with clients' levels of emotional disclosure, or in other words, with their description of positive or negative feelings ($r = .72; p < .01$). On the other hand, psychological counsellors' levels of satisfaction were found not to be significantly related with clients' behaviors of cooperation/participation, notification about changes and enlightenment and or with his/her own behaviors of empathy, support and giving instruction.

Relationships between the Psychological Counseling Process and Counseling Success

In order to research the relationship between the psychological counseling process and outcomes, the sample group was turned into a categorical variable. As mentioned before, the Changes in Life and Behaviours Inventory (CILB) developed by Zielke (1978) and Zielke and Kopf-Mehnert (2001) was chosen to measure the success of the therapeutic process. Results of the analysis conducted found that almost all of the clients had stated to have experienced positive changes and none mentioned anything negative. Therefore, counsellors' CILB scores were turned into categorical variables considering arithmetic means (242.75), median (249.00) and standard deviation (31.17). Accordingly, one successful group ($n = 15$) and relatively less successful group ($n = 16$) were formed.

Session Evaluation: Both groups were administered the Session Evaluation Scale and Client/Counsellor forms, and the scores obtained were compared by subjecting them to a *t*-test. Accordingly, the evaluations of the two groups were found to differ significantly in favor of the successful group.

Table 7
t-test Results for Success Groups' Evaluations about Sessions-Client Form

CILB	n	X	Sd	t
Successful	15	71.00	5.42	4.585
Unsuccessful	16	58.56	9.09	

As seen in Table 7, the *t*-test results indicate that the clients' evaluations of the sessions differed significantly between the two groups [$t = 4.585; p = .00 < .01$]. The evaluations made by the participants in the successful group ($x = 71.00$) were more positive than those made by participants in the less successful group ($x = 58.56$). This finding indicates that the level of change in both the clients' life and behaviors was affected by how they evaluated the psychological sessions. Similarly, psychological counsellors' levels of satisfaction from both success groups were compared with each other.

Table 8
t-test Results for Success Groups' Evaluations about Sessions-Counsellor Form

CILB	N	X	Sd	t
Successful	15	65.73	6.46	3.179
Unsuccessful	16	57.69	7.54	

As seen in Table 8, according to the *t*-test's results, there was a significant difference between the session evaluations of psychological counsellors according to success groups [$t = 3.179; p = .00 < .01$]. Evaluations by prospective psychological counsellors from the successful group ($x = 65.73$) were found to be more positive than those from the less successful group ($x = 57.69$).

Frequency of Behavior Categories: It was investigated as to whether the frequency of the behaviors observed in each success group differed. As there was a high number of behavior categories for both clients and counsellors, and as the observed number of behaviors would not be sufficient for analyses, each behavior category was classified separately under a higher, parent behavior category. Thus, sufficient number of observations was achieved for analysis.

Table 9
Mann-Whitney-U-Test Results in relation to whether Psychological Counsellors' Parent Behavior Categories differed in the Psychological Counseling Process according to Success Groups

Categories	CILB	n	Mean Rank	Rank Total	U
Empathy	Successful	10	13.20	132.00	23.000
	Unsuccessful	10	7.80	78.00	
Support	Successful	10	12.75	127.50	27.500
	Unsuccessful	10	8.25	82.50	
Exploration	Successful	10	11.25	112.50	42.500
	Unsuccessful	10	9.75	97.50	
Explanation	Successful	10	12.25	122.50	32.500
	Unsuccessful	10	8.75	87.50	
Instruction/ Guidance	Successful	10	11.25	112.50	42.500
	Unsuccessful	10	9.75	97.50	
Classification	Successful	10	9.25	92.50	37.500
	Unsuccessful	10	11.75	117.50	

As seen in Table 9, there was a significant difference in both the empathy ($U = 23.000$; $p = .04 < .05$) and support ($U = 27.500$; $p = 0.8 < 1.0$) parent behavior categories between the group that provoked changes in the clients' lives and behaviors and the group that did not. Mean rank values showed that counsellors' empathy and support type behaviors in the successful group were higher than those in the less successful group. On the other hand, no significant differences were found in the "exploration," "explanation," "instruction/guidance," and "classification" parent behavior categories ($p > .05$).

Table 10
Mann-Whitney-U-Test Results in relation to whether Clients' Parent Behavior Categories in the Psychological Counseling Process Differ according to Success Groups

Categories	CILB	n	Mean Rank	Rank Total	U
Emotional Disclosure	Successful	10	12.85	128.50	26.500
	Unsuccessful	10	8.15	81.50	
Problem Description	Successful	10	11.50	115.00	40.000
	Unsuccessful	10	9.50	95.00	
Short Response	Successful	10	11.80	118.00	37.000
	Unsuccessful	10	9.20	92.00	
Notification about Changes	Successful	10	13.50	135.00	20.000
	Unsuccessful	10	7.50	75.00	
Participation/ Cooperation	Successful	10	13.70	137.00	18.000
	Unsuccessful	10	7.30	73.00	
Enlightenment	Successful	10	9.85	98.50	43.500
	Unsuccessful	10	11.15	111.50	
Inhibitive Behavior	Successful	10	6.60	66.00	11.000
	Unsuccessful	10	14.40	144.00	

As seen in Table 10, there was a significant difference between clients' display of the parent behavior categories of emotional disclosure ($U = 26.500$; $p = .07 < 1.0$), notification about changes ($U = 20.000$; $p = .02 < .05$), participation/cooperation ($U = 18.000$; $p = .01 < .05$) and inhibitive behavior ($U = 11.000$; $p = .00 < .01$) based on whether they were members of the group that experienced changes in their lives and behaviors and those in the group that did not. As Mean rank values indicate that clients in the successful group had higher behaviors in the parent categories of emotional disclosure, notification about changes, participation/cooperation behaviors when compared to the group that experienced less changes in their lives and behaviors. On the other hand, clients in the less successful group exhibited inhibitive behaviors more frequently than clients from group that witnessed more changes in their lives and behaviors. However, no significant differences were found in terms of the parent behavior categories of problem description, short response and enlightenment ($p > .05$).

Differences between First Order Transition Probabilities: Whether the frequency of behaviors differed or not in each success group was investigated and reported above. In this section, it will be investigated as to whether significant differences between the behavior series occurred in terms of CILB scores. The differences between successful and relatively less successful groups in terms of how consecutive a behavior occurred were tested using a non-parametric Mann-Whitney-U-Test. As the number of behavior categories was high for both clients and counsellors, behavior categories were reduced to a minimum number. The reason for having done so is that a lower number of observed series renders it the more difficult to interpret and discuss the results. Therefore, according to Schindler (1991), a series should be observed 10

Table 11
Mann-Whitney-U-Test Results for Cases in relation to whether First Order Transition Probabilities Differ according to Success Groups in the Conditions where the Psychological Counsellor is t and the Client t+1

Behavior Series	CILB	n	Mean Rank	Rank Total	U
Empathy/Support → Problem Description	Successful	10	12.60	126.00	29.000
	Unsuccessful	10	8.40	84.00	
Empathy/Support → Responsibility/Cooperation	Successful	10	13.60	136.00	19.000
	Unsuccessful	10	7.40	74.00	
Empathy/Support → Inhibitive Behavior	Successful	10	8.50	85.00	30.000
	Unsuccessful	10	12.50	125.00	
Exploration/Research → Problem Description	Successful	10	11.70	117.00	38.000
	Unsuccessful	10	9.30	93.00	
Exploration/Research → Responsibility/Cooperation	Successful	10	12.05	120.50	34.500
	Unsuccessful	10	8.95	89.50	
Exploration/Research → Inhibitive Behavior	Successful	10	6.90	69.00	14.000
	Unsuccessful	10	14.10	141.00	
Instruction/Classification → Problem Description	Successful	10	10.55	105.50	49.500
	Unsuccessful	10	10.45	104.50	
Instruction/Classification → Responsibility/Cooperation	Successful	10	11.35	113.50	41.500
	Unsuccessful	10	9.65	96.50	
Instruction/Classification → Inhibitive Behavior	Successful	10	8.50	85.00	30.000
	Unsuccessful	10	12.50	125.00	

times. Therefore, by group overall behaviors into a lower number of behavior categories will work to increase the number of sound results (Schindler, 1991). In this regard, behavior categories in PIC were recategorized under 3 behavior categories for psychological counsellors and 3 higher behavior categories for clients.

Accordingly, the parent behavior categories of empathy and support, exploration and explanation and instruction and classification type behaviors were combined for psychological counsellors on the one hand, and the parent behavior categories of emotional disclosure, notification about changes, participation/cooperation and enlightenment behaviors as well as problem description and short response categories were combined for clients on the other. The client's inhibitive behavior category was not combined with any behavior categories and accepted as a specific higher framework in its own right.

An investigation of the probability that one behavior will emerge as a result of another behavior in terms of the change criteria indicates that there is a significant difference in the "empathy/support and responsibility/cooperation" series ($U = 19.000$; $p = .01 < .05$). Given the mean ranks, when counsellors in the successful group showed empathy/support type behaviors, clients were found to undertake responsibility and demonstrate cooperation. Another significant difference about the interaction series of both groups was between the "exploration/research-inhibitive behavior series" ($U = 14.000$; $p = .00 < .01$). Given the mean rank values, those in the unsuccessful group were found to demonstrate more instances of the exploration/research and inhibitive behavior series compared to those in the successful group. On the other hand, no significant differences were found among the other behavior series in terms of the criteria of instigating changes in clients' lives and behaviors.

As seen in Table 12, the responsibility/cooperation and empathy/support relation pattern displays significant differences in terms of success criteria ($U = 19.000$; $p = .01 < .05$). Given the mean rank values, the differences seem to be in favor of the successful group. On the other hand, another significant difference was found between the exploration/research behavior series ($U = 8.000$; $p = .00 < .01$). However, when mean rank values are considered, it is understand that this difference is in favor of the less successful group.

Table 12
Mann-Whitney-U-Test Results for cases in relation to whether First Order Transition Probabilities Differ according to Success Groups in the Conditions where the Client is t and the Psychological Counsellors is t+1

Behavior Series	CILB	n	Mean Rank	Rank Total	U
Problem Description → Empathy/Support	Successful	10	12.60	126.00	29.000
	Unsuccessful	10	8.40	84.00	
Problem Description → Exploration/Research	Successful	10	11.75	117.50	37.500
	Unsuccessful	10	9.25	92.50	
Problem Description → Instruction/Classification	Successful	10	9.30	93.00	38.000
	Unsuccessful	10	11.70	117.00	
Responsibility/Cooperation → Empathy/Support	Successful	10	13.60	136.00	19.000
	Unsuccessful	10	7.40	74.00	
Responsibility/Cooperation → Exploration/Research	Successful	10	12.30	123.00	32.000
	Unsuccessful	10	8.70	87.00	
Responsibility/Cooperation → Instruction/Classification	Successful	10	11.15	111.50	43.500
	Unsuccessful	10	9.85	98.50	
Inhibitive Behavior → Empathy/Support	Successful	10	8.35	83.50	28.500
	Unsuccessful	10	12.65	126.50	
Inhibitive Behavior → Exploration/Research	Successful	10	6.30	63.00	8.000
	Unsuccessful	10	14.70	147.00	
Inhibitive Behavior → Instruction/Classification	Successful	10	8.00	80.00	25.000
	Unsuccessful	10	13.00	130.00	

Discussion

The present study has investigated the client-counsellor interaction in the psychological counseling process at the verbal behavior level in terms of co-dependency. Moreover, the relationship between clients and counsellors' evaluations both of the sessions and of the changes that clients experienced in their lives and behaviors after psychological counseling with the behaviors observed in the process was also investigated. The study's findings were discussed under "the behaviors in the counseling process," "session satisfaction," and "changes in life and behaviors" sub-headings.

Behaviors of Clients and Psychological Counsellors in the Counseling Process

As the counseling process progressed, counsellors' problem-related statements such as "problem description" and the questions that they posed to obtain information demonstrated a non-significant decrease. However, behavior categories related change, such as "notification about changes," "comprehension," (insight) "success notification," and "confidence about future" displayed a slight increase. It is understandable that counsellors demonstrated description behaviors more frequently during the earlier sessions of the counselling process. According to Hill (1993) and Schindler (1991), the frequency of this behavior is expected to decrease toward the end of the process. The findings obtained in the present study confirm this expectation. With this being said however, in order to claim that the counselling process has achieved its aim behaviors related to change are expected to increase. Again, the findings obtained in this study confirm this expectation. Successful counseling behaviors include a client's being hopeless and helpless at the beginning and being confident about the future toward the end of the process. It is understandable that clients demonstrate more inhibitive behaviors toward the end of the process in the cases that their expectations about the process are not met. Again, this finding is parallel to the findings in the study conducted by Schindler (1991).

At the beginning of the counseling process, the counsellor asks questions to obtain information more frequently in order not only to understand the client as a person, but also to better grasp the problem brought to counseling. Therefore, counsellors' questions aiming at obtaining information and summarization behaviors with the goal of developing an understanding about the problem are observed more frequently during earlier sessions. The finding obtained in this study is parallel to this explanation. Psychological counsellors seem to express themselves more and tend to communicate with the client as an individual more frequently toward the end of the process. Furthermore, an increase was observed in the frequency of positive feedback and interpretation behaviors provided to the client in the final session. On the other hand, findings showed that although such a change would affect the success of counseling, there was neither a decrease nor an increase in counsellors' behavior categories of empathy and support. In other words, no linear increase was observed. In fact, although support,

encouragement and minimal support type behaviors did not display any changes throughout the process, there was an increase in the number of positive feedback received. While counsellors demonstrated behaviors that acted to strengthen the process more frequently at the beginning of the process, these behaviors decreased toward the final sessions.

Although clients and counsellors' behaviors differed during the process, they both demonstrated stability throughout the process. Psychological counsellors and clients affected each other mutually. The following section interprets and discusses the findings relating to the ways that counsellors' behaviors were found to affect clients' behaviors and vice versa.

The Case that Psychological Counsellor Behaviors are Antecedent and Client Behaviors are Consequent:

Counsellors' empathy type behaviors were found most often to lead to clients displaying self-disclosure type behaviors. On the other hand, the probability that a client would demonstrate inhibitive type behaviors such as rejection/avoidance, criticism/rebellion and devotion decreases after a display of empathy type behavior by a counsellor. A counsellor's showing of support, in other words, encouraging the client, giving positive feedback and/or providing minimal support lead clients to describe their problems more frequently and give short/simple responses less frequently. The probability of a client giving short responses increases especially after counsellors ask questions aiming to obtain information. Similarly, counsellors' explanation type behaviors (identification of the event, construction, and self-disclosure) lead their client to demonstrate less problem description and more short/simple response type behaviors. However, verbal behaviors of the counsellor in this direction lead the client to contact the counsellor as an individual. For instance, after a counsellor displays an explanation type behavior, the client is likely to ask the counsellor questions aiming to talk more about the therapeutic relationship or to obtain suggestions or information. It is expected and understandable that those client behaviors able to affect the therapeutic process (inhibitive behaviors) mostly emerge as a result of counsellors' behaviors, specifically those of instructions or confrontation, interpretation or criticism. This case shows that clients develop resistance to these types of behaviors on the part of counsellors. Findings stated under this heading show that the main premises of the client-centred psychological counseling theory are valid.

The Case that Client Behaviors are Antecedent and Psychological Counsellor Behaviors are Consequent:

When a client talks about his/her positive or negative feelings, the counsellor most frequently follows with displays of empathy and least frequently follows with exploratory type behaviors. Through empathy, the counsellor tries to show that the client will not be judged, but will be accepted when he expresses his feelings. When a client describes a problem, the counsellor most often displays content and his own feelings, gives reactions that encourage the client to speak, shows understanding, encourages clients, gives positive feedback and provides minimal support. In brief, counsellors most frequently demonstrate empathy and support behaviors after their client describes a problem. On the other hand, the behaviors that they least demonstrate are exploration, explanation and instruction/direct guidance. Another expected finding is that a counsellor asks more questions aiming to understand by exploring and identifying the event after his client gives a short response. Similarly, although it is not as frequently displayed as exploration and explanation type behaviors, a client's short response is sometimes followed by instruction/direct guidance behaviors. However, giving short responses was not met by a counsellor showing empathy or support. What is interesting is that the most frequently seen reactions after a client describes the problem are empathy and support, but in case of a short response of the client, empathy and support are the least frequently seen behaviors. Similarly, counsellors' exploration, explanation and instruction type behaviors do not emerge after their client describes his problem, and instead emerge after a client gives short and simple responses. One of the main purposes of psychological counseling is to provoke changes in clients. While a client's notification about changes is followed by a show of empathy by the counsellor, a client's cooperation and participation is followed by the counsellor showing support type behaviors. Psychological counsellors' exploration type behavior, such as questions aiming to obtain further information and summarization are least frequently followed by a client's notification about changes and cooperation/participation. Another expected finding is that in the cases when the client talks about the therapeutic relationship or asks for information or suggestions from the counsellor, the counsellor gives an explanation. Naturally, the client's need for comprehension and enlightenment is followed mostly by explanation type behaviors. A client's resistant or inhibitive type behaviors are most frequently followed by

such classification type behaviors as confrontation, interpretation, criticism and instruction/direct guidance type behaviors (things that show that the counsellor is in control). On the other hand, it is least often followed by exploration type behaviors. This finding reveals why counsellors avoid trying to understand clients' rejection/avoidance, criticism/rebellion or devotion type behaviors. These findings reveal that psychological counsellors prefer solidifying their position and defending themselves against these behaviors as they affect the counseling process or outcome negatively.

Session Satisfaction

As it has been emphasized before, psychological counseling is a social process where both sides affect each other. Clients and counsellors' experiences will influence the productivity and success of the process. The success of a counseling process is no doubt related to the experiences in the process. In this regard, the aim was to explore how clients and psychological counsellors perceive or evaluate their counselling sessions. As expected, both sides' evaluations are similar with the other. In other words, whether a client gives a positive or negative evaluation to a session is related to the counsellor's evaluations about the sessions.

There are no research findings concerning the relationship between client and counsellor behaviors and their experiences in the process (Schindler, 1991). Therefore, due to the limited number of studies, the findings that refer to the relationship between behavior and experiences in this study are discussed and interpreted at a theoretical level rather than in light of the empirical findings. Findings obtained in the present study indicate that clients' evaluations regarding the session have a significant, positive relationship with counsellors' explanation type behavior and a significant, negative relationship with their classification type behaviors. Psychological counsellors' explanation behaviors, such as identification of the event, construction of the process, explanation (setting a goal) and self-disclosure, were found to be related with clients giving more positive evaluations about the session. On the other hand, psychological counsellors' classification type behaviors, such as confrontation, interpretation and/or criticism, indicated a significant, but negative relationship with the client's satisfaction about the session. A good relationship between the psychological counsellor and client should be set so that psychological counseling can achieve its aim.

Although a positive relationship can be achieved when counsellors exhibit empathy and support type behaviors, whether the process continues depends on whether the process continues in line with the counsellor's objectives. As such, Hackney and Cormier (2008) emphasize the importance of not only having a good relationship with the client, but also of defining and setting goals.

Another significant finding is that clients' evaluations regarding the session are related with his/her notification about changes type behaviors. Achieving the goals expected from the counseling process affects clients' life positively. Attributing clients' change solely to the counseling process and its sessions or totally to their counsellor's success would be wrong because as stated by Lambert and Barley (2002), while 40% of change happens as a result of factors other than psychological counseling, only 15% results from counsellor expectations. On the other hand, clients' negative perceptions about the counseling process seem to be related with their own inhibitive behaviors. In other words, clients' rejection/avoidance, criticism/rebellion and devotion type behaviors demonstrate a significant, negative correlation with how the session is evaluated. Counsellors' evaluation of the counselling sessions seems to be related with their client's level of emotional disclosure; that is, clients talking about positive and negative feelings. What is interesting is the clients' behaviors of notification especially about change, cooperation/participation, enlightenment behaviors and inhibitive behaviors do not seem to affect the counsellors' level of satisfaction about the session.

The Psychological Counseling Process and Its Success

Findings of the present study demonstrate that both clients and prospective psychological counsellors' experiences in successful and less successful groups differ greatly. Clients and psychological counsellors who were in the group that experienced more changes evaluated sessions more positively. This finding indicates that the Session Evaluation Scale-Client and Counsellor Forms distinguish between successful and less successful groups. In the next step, it was sought whether clients and counsellors' behaviors differed in terms of the criterion of changes in their lives and behaviors. Considering all the sessions, it was found that while counsellors' frequency of displaying empathy and support type behaviors differed between the two different groups, no significant differences existed in counsellor's exploration, explanation, instruction/guidance and classification

type behaviors. As stated by Hackney and Cormier (2008), the first step of psychological counseling is communicating and forming a positive relationship with the client. As such although empathy is, without a doubt, important in the counseling process, it is more so during the first stages of the process. Emotional disclosure, notification about changes, participation/cooperation and inhibitive type behaviors were found to differ significantly in terms of how much clients experienced changes in their lives and behaviors. While emotional disclosure was found to differ in favor of the group whose members displayed notification about changes and participation/cooperation and success, it was found that inhibitive behaviors differed in favor of the less successful group. Van Zandwijk and Janssen (1992) state that while the counsellor behavior that best characterizes a successful process is participation/cooperation, the counsellor behavior that least characterizes success is inhibitive type behaviors. Another study that observed behaviors in the counseling process (Schindler et al., 1989) found that clients showed more cooperation and less timid (inhibitive) behaviors in a successful counseling session. Findings of the present study correlate with the ones mentioned above.

It was found that when a counsellor in the successful group demonstrated empathy/support type behaviors, his attitudes led the client to take on more responsibilities or to show cooperation, express his/her emotions, report notifications about change, trust in future, and gain insights. A number of studies investigating transition probabilities indicate that whether a counsellor is empathetic or not is important for progress (Brandl & Kammer, 1999; Kaimer, Reinecker, & Schindler, 1989). On the other hand, when counsellors in the less successful group demonstrated exploration/research behaviors, these attitudes caused clients to demonstrate more inhibitive behaviors. The interaction in a successful psychological counseling session should involve the above mentioned distinguishing features. Similar results were obtained in cases where clients' reactions were antecedent and counsellors' reactions were consequent. In this regard, after the clients in the successful group took responsibility and cooperation, the probability of counsellor demonstrating any one of the empathy and support type behaviors was higher than counsellors in the less successful group. On the other hand, counsellors in the less successful group were more likely to demonstrate one of the exploration, research, or explanation type behaviors following their client's display of inhibitive type behaviors than those in the successful group.

Conclusion

Clients and counsellors' behaviors affect each other reciprocally in the psychological counseling process. This study, while investigating the interaction in psychological counseling in terms of co-dependency, has important outcomes for both psychological counseling practices and counsellor education. Similarly, it is thought that identifying which behavior types differ between more and less successful groups, with success being defined as whether clients experienced changes in their lives and behaviors after counselling, will contribute to the understanding of the nature of psychological counseling. As a result, the present study has found that prospective psychological counsellors who were in the more successful group demonstrated empathy and support type behaviors and the clients demonstrated such behaviors as emotional disclosure, notification about changes, participation and cooperation. On the other hand, undesirable, negative behaviors (rejection, rebellion, devotion) were observed significantly less often in a successful counseling process. The probability of counsellors' empathy and support behaviors and clients' participation and cooperation behaviors being together is higher in a successful counseling process. On the other hand, the probability of counsellors' exploration/research type reactions and clients' inhibitive behaviors being together is higher in an unsuccessful counseling process.

When the question "Which behaviors made clients and psychological counsellors satisfied with a session" was tested, it was found that clients' satisfaction levels were positively associated with whether the counsellor displayed explanation type behavior and the client mentioned changes in his life and behaviors. On the other hand, it was also found that counsellors' classification type behaviors were negatively associated with one of his/own behaviors, "inhibitive behaviors." Whether counsellors evaluated sessions positively was found to be positively associated with only one type of clients' emotional disclosure behavior types; namely, talking about positive or negative feelings. This finding is surprising in that it indicates that counsellors are less interested in clients' notification about changes and

cooperation/participation type behaviors. However, another finding of the present study is that these behaviors were indicators in distinguishing between more and less successful groups.

Recommendations

Given the lack of number in studies on the psychological counseling process, more studies associating the process with its outcome variables are needed not only to gain a better understanding both of the process itself and of the nature of counseling, but also to reach more systematic information. Client and counsellor behaviors affect each other reciprocally. The interaction in the psychological counseling process should be interpreted in terms of a cause-and-effect relationship, and psychological counsellors' levels of awareness about the process should be increased. Associating the psychological counseling outcomes with the process can help prospective psychological counsellors approach psychological counseling from a more scientific (evidence-based) framework. Measuring the outcome and the process as well as having students and prospective counsellors rate their own success can help education to become more standardized.

In the present study, group comparisons were conducted from the data collected from prospective psychological counsellors. Future research should analyze the counseling sessions of more professional psychological counsellors in the field. The Psychological Interaction Coding System developed by Schindler (1989; 1991) was used in the systematic observation and coding of the behaviors. In this system, the verbal behaviors of both psychological counsellors and clients are observed and coded. However, the appropriateness of these behaviors is not evaluated in this coding system. For instance, while it is possible to gather information about counsellors' confrontation or interpretation type behaviors, it is not possible to evaluate these behaviors' appropriateness with this coding system. Therefore, investigation of the psychological counseling process with different observation or coding systems is believed to be beneficial.

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