

# Development of Brazilian prototypes for short-term psychotherapies

# Desenvolvimento de protótipos brasileiros para psicoterapias de curta duração

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#### Abstract

**Introduction:** The Psychotherapy Process Q-Set (PQS) prototype method is used to measure the extent to which ideal processes of different psychotherapies are present in real cases, allowing researchers to examine how adherence to these models relates to or predicts change. Results from studies of short-term psychotherapies suggest that the original psychodynamic prototype is more suitable for studying psychoanalysis and long-term psychodynamic psychotherapy than its time-limited counterparts. Furthermore, culture probably influences how therapies are typically conducted in a given country. Therefore, it seems appropriate to develop Brazilian prototypes on which to base studies of short-term psychodynamic and cognitive-behavioral processes in this country.

**Objective:** To develop prototypes for studying processes of short-term psychotherapies and to examine the degree of adherence of two real psychotherapy cases to these models.

**Methods:** Expert clinicians used the PQS to rate a hypothetical ideal session of either short-term psychodynamic psychotherapy (STPP) or cognitive-behavioral therapy (CBT). Ratings were submitted to Q-type factor analysis to confirm the two groups. Regressive factor scores were rank ordered to describe the prototypes. These ideal models were correlated with ratings of actual therapy processes in two complete psychotherapy cases, one STPP and the other CBT.

**Results:** Agreement levels between expert ratings were high and the two ideal models were confirmed. As expected, the PQS ratings for actual STPP and CBT cases had significant correlations with their respective ideal models, but the STPP case also adhered to the CBT prototype.

**Conclusion:** Overall, the findings reveal the adequacy of the prototypes for time-limited therapies, providing initial support of their validity.

**Keywords:** Psychotherapeutic processes, brief psychotherapy, psychodynamic psychotherapy, cognitive behavioral therapy.

#### Resumo

**Introdução:** O método dos protótipos derivados do Psychotherapy Process Q-Set (PQS) mensura em que medida processos de diferentes psicoterapias estão presentes em casos reais, permitindo pesquisadores examinarem como a adesão a esses modelos se relaciona com ou prediz a mudança. Resultados de estudos com psicoterapias breves sugerem que o protótipo psicodinâmico original é mais adequado para estudar psicanálise e psicoterapia psicodinâmica de longo prazo do que suas variantes de tempo limitado. Além disso, a cultura provavelmente influencia o modo como as psicoterapias são tipicamente conduzidas em determinado país. Portanto, parece apropriado o desenvolvimento de protótipos brasileiros para subsidiar estudos de processos psicodinâmicos e cognitivo-comportamentais de curto prazo neste país.

**Objetivo:** Desenvolver protótipos para o estudo dos processos de psicoterapias de curta duração e examinar o grau de adesão de dois casos reais de psicoterapia a esses modelos.

**Métodos:** Especialistas brasileiros usaram o PQS para avaliar uma sessão hipotética ideal de psicoterapia psicodinâmica breve (PPB) ou de terapia cognitivo-comportamental (TCC). A análise fatorial do tipo Q foi realizada para confirmar os dois fatores. Os escores fatoriais regressivos foram ordenados para descrever os protótipos. Os protótipos foram correlacionados com as avaliações de processos reais de terapia em dois casos completos, um de PPB e outro de TCC.

**Resultados:** Houve alta concordância entre especialistas, e os dois modelos ideais foram confirmados. Como esperado, os escores do PQS para os casos reais de PPB e TCC apresentaram correção significativa com seus respectivos modelos ideais, mas o caso de PPB aderiu também ao protótipo TCC.

**Conclusões:** No geral, os resultados revelam a adequação dos protótipos para terapias com tempo limitado, fornecendo suporte inicial de sua validade.

**Descritores:** Processos psicoterapêuticos, psicoterapia breve, psicoterapia psicodinâmica, terapiacognitivo-comportamental.

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# Introduction

Psychotherapy research has repeatedly demonstrated that different forms of short-term therapies lead to equivalent outcomes despite their differences in terms of theoretical background and technical features.<sup>1-3</sup> Since different approaches have distinct theories of therapeutic action, this general result has led to the specific versus nonspecific effects debate. The adoption of the term common factor implies researchers' recognition that different therapies include non-unique factors that are also efficacious, such as a therapeutic relationship characterized by trust, kindness, and understanding, for example.<sup>4</sup> The common factors theory proposes that different psychotherapies share similar underlying components that contribute to their outcomes.<sup>5,6</sup> On the other side of the debate, some authors7-9 affirm that theory-driven specific factors may have a stronger role in psychotherapy results than is often assumed, since outcome studies have proven the superiority of some therapies for some particular disorders, and even when equivalence is established, it is plausible to consider the possibility that the two treatments work via specific (and different) paths to produce change.8 This does not however mean that common factors should be overlooked. In fact, the common vs. specific factors division is a false dichotomy, since in face-toface psychological treatments strong interdependence between treatment factors and relationship factors contributes to the progress and results of therapy.<sup>10-12</sup> However, investigation of how these multiple variables relate to outcomes requires other and more complex methodologies than traditional randomized clinical trials (RCT).12 Much more research is needed to clarify the mechanisms of change in psychotherapy.

Studying how processes affect change is not simple. When researchers want to study mechanisms of change in psychotherapies, how can they really know which interventions are indeed being used and how they relate to changes? Ablon & Jones<sup>13</sup> contributed to this field by developing an innovative methodology for measuring the extent to which the ideal processes of different kinds of psychotherapy are present in actual psychotherapies, to enable evaluation of how adherence to ideal processes is related to or predictive of change. This methodology can be applied to both controlled and naturalistic studies, i.e., to manualized and non-manualized therapies. To develop the method, they first asked a panel of expert psychodynamic therapy (PDT) and cognitivebehavioral therapy (CBT) clinicians to describe an ideal therapy session using the Psychotherapy Process Q-Sort (PQS),<sup>9</sup> a Q-sort type process measure. Prototypes were generated by subjecting these ratings to a Q-type factor analysis that yielded two factors, representing, respectively, the two psychotherapy models. Then, actual therapy sessions were rated with the PQS to access process variables.

In their pioneering study, Ablon & Jones<sup>13</sup> examined therapy sessions of 100 patients from three different archived samples: 30 patients with a wide range of neurotic disorders receiving 16 sessions of short-term psychodynamic psychotherapy (STPP), 32 patients receiving 16 sessions of CBT for unipolar depression, and 38 patients receiving 12 sessions of manualized STPP. Controlling for pretreatment scores, rates of adherence to prototypes were correlated to outcome. However, in the psychodynamic sample with posttraumatic stress disorder (PSTD) patients, neither of the prototype adherence rates predicted change. With the other samples, the prototypes were able to identify the active ingredients of therapy. Notably, therapists' adherence to the PDT prototype predicted positive outcome in both STPP and CBT. On the other hand, therapists' adherence to the CBT prototype showed little or no relation to outcome in either form of therapy. The study demonstrated that we cannot infer processes from the therapy approach being employed and that a feature theoretically related to one type of psychotherapy may be an active ingredient of another type.

When patients improve in RCTs, it is generally assumed that the change was due to specific interventions delivered. However, since RCTs do not directly examine whether specific and common factors relate to outcome,<sup>10</sup> this assumption can be fallacious. In fact, we have learned from process studies that psychotherapy brand names might be misleading since two different approaches can share many more features than is assumed by their theory of therapeutic action, even in controlled studies in which therapies are manualized.<sup>14</sup> Moreover, change can occur due to a feature that is related to the ideal process of a different therapy.<sup>13,15</sup>

It has been pointed out that even when delivering the same model of treatment, therapists' attitudes and techniques reflect their individual style, the individual patient's style and the unique ways that patient and therapist interact.<sup>7</sup> The diversity of styles and interaction patterns in typical practice is expected to be even greater than the diversity found in controlled studies. Therefore, one of the major contributions of PQS-derived prototypes is provision of a method for examining treatment fidelity in naturalistic psychotherapies.

The many applications of PQS to psychotherapy research and the contributions made to different lines of investigation can be found in a recent comprehensive review of PQS studies.<sup>16</sup> What intrigues us is the fact that in many studies using this method, STPPs have exhibited

a high degree of adherence to the alternative CBT model, as detailed next.

We highlight, for example, findings from Ablon & Jones's study of the three sets of archived treatment records mentioned above,13 in which adherence to the PDT prototype was negative for the CBT sample, but both STPP samples exhibited a high degree of adherence to both prototypes. In fact, for the PSTD psychodynamic sample, the degree of adherence was significantly higher for the CBT prototype than for the PDT process. Another study<sup>17</sup> found greater adherence to the CBT prototype in a sample of naturalistic STPP sessions for panic disorder. However, CBT processes did not predict change. On the other hand, PDT-specific factors were only partially related to change. Active ingredients included supportive stance of therapist and working alliance. Finally, using the Brazilian version of the PQS to analyze an intensive single case study of STPP, we found, contrary to our expectations, that adherence was significantly closer to CBT therapy processes than to PDT processes. Since we noticed that specific CBT techniques were not applied in this case, we discussed some possible limitations of the PDT prototype being used, such as an absence of supportive interventions among its main features.<sup>18</sup>

Are psychodynamic therapists frequently not fostering PDT processes when delivering short-term therapies? Results from this line of investigation suggest that STPP technique might be more heterogeneous than CBT techniques and also that short-term therapies may have many shared processes. Since traditional psychodynamic treatments are not brief, we hypothesized that the PDT prototype may not capture STPP process as well as it does with long-term PDT and psychoanalysis. Furthermore, culture also probably influences how therapies are typically conducted in a given country. Therefore, it seems appropriate to develop Brazilian prototypes to provide a basis for studies of short-term psychodynamic and cognitive-behavioral processes and outcomes in this country. Thus, our aim in this study is to develop a modified psychodynamic prototype for studying STPPs and a short-term CBT prototype and to test them on two complete cases of short-term therapy, one cognitive behavioral and one psychodynamic. Our hypotheses are: 1) the STPP prototype will be distinct from the short-term CBT prototype, although some degree of common factors should be present; 2) the correlation between the existing and the new CBT prototypes will be stronger than the correlation between the existing PDT and the new STPP prototype; 3) the psychodynamic case will exhibit closer adherence to the STPP prototype than to the traditional PDT prototype, to the traditional CBT prototype and to the short-term CBT prototype; 4) the CBT case exhibit closer adherence

to both CBT prototypes than to either psychodynamic prototype (PDT and STPP).

# Method

This is a two-phase study. The objective of phase 1 was to develop new STPP and CBT prototypes and phase 2 was designed to test these prototypes using two actual cases of complete short-term therapy, one psychodynamic and one cognitive-behavioral. The study protocol was approved by the Research Ethics Committee at the private university where the study was conducted. Therapists and patients gave their informed consent to audio recording of therapy sessions.

# Stage 1: Development of STPP and short--term CBT prototypes

# Participants

The participants were 18 psychotherapists (3 males and 15 females), 9 experts in STPP and 9 experts in CBT. The expertise criteria adopted were: minimum of 8 years of clinical practice with adults (Mean = 21.17years; standard deviation [SD] = 10.02), recognition among peers as an expert and experience teaching and/or supervising at post-graduate level in Brazilian universities or other recognized institutions that train psychotherapists. It is important to point out that these respondents are national authorities on their respective approaches and can be considered models for their colleagues. The number of respondents is limited by both the expertise criteria and characteristics of the Q-methodology (see the Procedures section for more details). Mean age was 48.06 years (SD = 11.90). Although the STPP therapists were significantly older than the CBT therapists (t = -3.125, p = 0.007), the groups were equivalent in terms years of clinical practice with adults (t = -2.018, p = 0.061).

# Instrument

The Psychotherapy Process Q-Set (PQS)<sup>9</sup> is a Q-sort process measure made up of a set of 100 items that fall into three types: 1) those that describe patients' attitudes, behaviors and experiences; 2) those relating to therapists' actions and attitudes; and 3) those that describe the nature of patient-therapist interaction and the therapeutic environment. The items should be distributed along a continuum from the least characteristic (category 1) to the most characteristic (category 9). Items are evaluated in relation to each other (ipsatively) rather than to an objective standard (normatively). The final pile number to which each card is assigned reflects how well that item characterizes the therapy process relative to the other items. The PQS has shown good inter-rater reliability,<sup>9,15,19</sup> construct validity,<sup>19</sup> and discriminant validity<sup>15</sup> in prior research. We used the Brazilian Portuguese version of PQS,<sup>20</sup> which has shown semantic equivalence with the original PQS and comparable inter-rater reliability.

# Procedures

Following Ablon & Jones' original procedures,13 experts rated the POS items according to a hypothetical ideal session of either STPP or CBT. The STPP therapists were asked to rate each of the PQS items against a 9-point scale to represent how characteristic or uncharacteristic that item was for describing an ideally-conducted STPP session. The CBT therapists did the same for an ideal short-term CBT session. All respondents were also asked whether any important feature of therapy was not covered by the PQS items. Note that this procedure included all of the PQS items, not just therapists' actions but also patients' behaviors and patient-therapist interactions. This is because the prototypes are not only intended to capture the techniques used by the therapist, but also processes that are expected or typical of a particular approach. These include how therapist and patient work together in sessions, which is consistent with the notion that psychotherapy is an interpersonal process in which patient and therapist influence each other. Nevertheless, when desirable, therapist, patient and interaction items can be analyzed separately.

### Analysis

As we assume that many therapists and researchers are unfamiliar with data analysis of Q-sorts, we present some of the central features. The Q methodology was created in the 1930's by the physicist, psychologist and psychometricist William Stephenson for the systematic study of human subjectivity from people's own point of view. Later, the method was adapted as to allow for independent external raters. Its features can be better understood in comparison to the most popular method of data analysis, known generically as the R method, in reference to Pearson's product-moment correlation. The goal of R methods is to seek to establish relationships between variables in a sample of people. In Q methods, the sample is not a population of individuals, but a population of views and so items, rather than people, are regarded as samples. Unlike with R methods, researchers using Q methodologies are interested in examining the relationships between a large set of data (variables that reflect different perceptions, opinions, experiences or processes) in a single person or in a small number of people. Therefore, the number of people that respond to a Q-sort is always smaller than the set of items to be sorted. Whereas R methods use a normative scale, in contrast, Q-sorts use an ipsative scale. The forced distribution of Q-sort ratings eliminates rater bias deriving from the tendency to use the extremes of a scale (the halo effect). Typically, analysis and interpretation of Q-sort data includes calculation of the correlation matrix of all ratings (Q-sorts). Here, correlation is the degree of agreement or disagreement between respondents' views. The next step is usually application of a factor analysis procedure to identify natural clusters of Q-sorts; people who share the same point of view will cluster together.21,22

The reliability of the assessments made by the two groups of experts was calculated using Cronbach's alpha coefficient. These assessments were then subjected to a Q-type factor analysis with varimax rotation. A Q factor analysis is computed using the same procedure as a conventional R factor analysis. In R factor analysis, columns represent variables and rows represent people. In a Q factor analysis the matrix is inverted, i.e. people (STPP and CBT experts) are "variables" (columns) and PQS items are "samples" (rows). An R factor analysis identifies variables that are similar to one another; Q-factor analysis identifies rows of data (in this case, STPP and CBT experts) that have similar views.

We used linear regressions to determine the contribution of each Q-item to the two factors (STPP and CBT prototypes). Factor scores represent the weighted sum of each Q-item. The items with the highest factor scores are most defining of the factor, and the items with the lowest factor scores are least defining of the factor. Comparisons between the newly-developed prototypes and traditional CBT and PDT prototypes were made by correlating their factor scores and by describing their most prominent characteristics.

# Results

In Stage 1, experts rated the PQS according to an ideal session of STPP or CBT. All respondents found that the PQS items did capture the most important processes of their theoretical model. Analyzing these ratings, we found high concordance among experts, with an equivalent alpha of 0.92 in both groups.

We performed a principal components factor analysis with varimax rotation. As expected, we found two factors that together explain 65.15% of the variance. It was observed that all of the CBT respondents loaded significantly onto factor 1 (named CBT), with factor loadings ranging between 0.647 and 0.765 (averaged 0.726). However, although six of the STPP respondents loaded significantly onto factor 2 (named STPP), three loaded significantly onto both factors and, unexpectedly, their loadings were higher for the CBT model, meaning that their view of STPP shares many features with the ideal CBT process, more than would be expected for two different approaches.

Tables 1 and 2 list a summary of the 20 items with the highest factor scores for the STPP and CBT models, respectively. Note that each prototype contains all of the 100 items in the PQS, not only the items that appear in the tables. Prototypes include characteristic, non-characteristic and neutral items and reflect what is prominent as well as what is missing in a therapy process. Also, prototypes are derived from all PQS items, not only from therapist items, allowing further study of the whole process.

We then compared the STPP and CBT prototypes with Ablon & Jones' broader cognitive-behavioral and

psychodynamic prototypes.<sup>13</sup> The correlation between the two cognitive-behavioral prototypes was 0.85, showing high convergence between these models. As expected, the correlation between the original PDT model and the new STPP model was strong (r = 0.62) but lower than that found between CBT prototypes.

Table 3 lists the most prominent items in the STPP prototype that are not highlighted in the original PDT prototype.

These results from phase 1 of the study suggest that the short-term prototypes developed are reliable and valid. We then proceeded to analysis of the psychotherapy cases.

# Stage 2: Case analysis

In this step, we analyzed the adherence of two complete cases of therapy against the psychodynamic and cognitive-behavioral prototypes.

# Case 1 - Psychodynamic

Patient: female, single, 50 years old, completed higher education, depressed, anxious and with a severe

20 most characteristic items of ideal STPP		
PQS	Item description	Factor score
67	T interprets warded-off wishes/feelings/ideas.	1.98847
36	T points out P's use of defensive maneuvers.	1.90944
40	Interpretations refer to actual people in P's life.	1.80603
89	T acts to strengthen defenses.	1.59831
92	P's feelings/perceptions are linked to past.	1.30716
23	Dialogue has a specific focus.	1.29973
82	P's behavior in hour reformulated by T in new ways.	1.21765
100	T interprets transference.	1.18658
97	P introspective, explores inner thoughts/feelings.	1.14712
46	T communicates in clear coherent style.	1.12177
45	T adopts supportive stance.	1.12089
6	T is sensitive to P's feelings, attuned, empathic.	1.11099
28	T accurately perceives therapeutic process.	1.10586
81	T emphasizes P's feelings to deepen them.	1.10583
86	T confident/self-assured (vs. uncertain/defensive).	1.10277
73	P is committed to the work of therapy.	1.10202
90	P's dreams or fantasies are discussed.	1.05468
65	T clarifies/restates/rephrases P's communication.	1.04675
98	Therapy relationship is discussed.	1.00499
68	Real versus fantasized meanings of experiences are actively differentiated.	0.9802

 Table 1 - Rank ordering of Q-items by factor scores on STPP factor

 $\label{eq:PQS} {\sf PQS} = {\sf Psychotherapy} \ {\sf Process} \ {\sf Q-Set}; \ {\sf STPP} = {\sf short-term} \ {\sf psychodynamic} \ {\sf psychotherapy}.$ 

	20 most characteristic items of ideal CBT			
PQS	Item description	Factor score		
38	Discussion of activities/tasks to do outside session.	2.23227		
30	Discussion centers on cognitive themes (ideas/beliefs).	2.15472		
85	T encourages P to try new ways of behaving with others.	1.71149		
57	T explains rationale behind treatment technique/approach.	1.27375		
21	T self-discloses.	1.23922		
31	T asks for more information or elaboration.	1.23229		
48	T encourages independence of action/opinion.	1.1467		
16	Discussion of body functions/physical symptoms/health.	1.11852		
80	T presents experience/event in different perspective.	1.0781		
32	P achieves a new understanding or insight.	1.04576		
4	P's treatment goals are discussed.	1.04381		
17	T actively exerts control over interaction.	1.01165		
41	P's aspirations/ambitions are discussed.	1.00996		
37	T behaves in a teacher-like (didactic) manner.	1.00367		
27	T gives explicit advice and guidance.	0.98334		
74	Humor is used.	0.95244		
79	T comments on changes in P's mood/affect.	0.95098		
69	P's current life situation is emphasized.	0.93127		
26	P experiences discomforting or troublesome (painful) affect.	0.9129		
35	Self-image is a focus of discussion.	0.91284		

Table 2 - Rank ordering of Q-items by factor scores on CBT factor

CBT = cognitive-behavioral therapy; PQS = Psychotherapy Process Q-Set.

heart problem. Focus of treatment: elaboration of mourning and preparation for major surgery. Treatment duration: 31 sessions. Therapist: clinical psychologist with seven years' experience in PDT.

# Case 2 - Cognitive-behavioral

Patient: female, adult, married, compulsive buyer. Therapist; trained CBT psychologist with more than 10 years of CBT practice. Treatment duration: 12 sessions.

 Table 3 - Specific items of STPP prototype compared to original PDT prototype

PQS	Item description
40	Interpretations refer to actual people in P's life.
89	T acts to strengthen defenses.
23	Dialogue has a specific focus.
28	T accurately perceives therapeutic process.
73	P is committed to the work of therapy.
97	P introspective, explores inner thoughts/feelings.
81	T emphasizes P's feelings to deepen them.
86	T confident/self-assured (vs. uncertain/defensive).
45	T adopts a supportive stance.
65	T clarifies/restates/rephrases P's communication.
68	Real versus fantasized meanings of experiences are actively differentiated.

PDT = psychodynamic psychotherapy; PQS = Psychotherapy Process Q-Set; STPP = short-term psychodynamic psychotherapy.

# Procedures

These two cases have already been analyzed in the context of previous studies with the Brazilian version of the PQS. All therapy sessions were audio recorded with the informed consent of therapists and patients. Each session (STPP, n = 31; CBT, n = 12) was assessed using the PQS by a pair of independent raters previously trained to use the PQS coding system. Inter-rater reliability (Intraclass correlation coefficient) was above 0.7 in all sessions. Ratings from pairs of raters were averaged to form a composite score that was used in all subsequent analyses.

Adherence to prototypes was measured by calculating the correlations (Pearson's coefficients) between PQS ratings for the actual sessions (composite scores for each session) with the scores for the ideal psychodynamic and cognitive-behavioral prototypes. Each of these correlations was transformed into a new variable: adherence score to either psychodynamic or cognitive-behavioral process. The t test for paired samples was used to compare the real psychotherapy sessions' adherence to each prototype.

#### Results

Case 1 (intentionally psychodynamic) has been intensively studied before<sup>16</sup> with time series analysis to examine how processes predicted change. Using the prototypes developed by Ablon & Jones, 13 this case adhered significantly more closely to the CBT model (mean 0.44, Pearson; SD = 0.23) than to the PDT model (mean 0.12, Pearson; SD = 09), as previously reported elsewhere.<sup>18</sup> In the present study, after reanalyzing this case, interesting results emerged: adherence to the STPP prototype developed in phase 1 of this study was 0.34 (SD = 0.20), which was significantly closer (t = -16.383, p = 0.000) than adherence to the classic PDT prototype. Moreover, adherence to the new (shortterm) CBT prototype was 0.28 (SD = 0.08) and this was a lower adherence rating than for the STPP prototype, although this difference was not significant (t = -1.663; p = 0.107). Our hypothesis that this case would more closely adhere to the STPP prototype than to the other prototypes (PDT and CBT) was partially confirmed.

In case 2 (intentionally cognitive-behavioral), we found that the scores for adherence were 0.62 (SD = 0.06) for the traditional CBT ideal model, 0.53 (SD = 0.06) for the brief CBT prototype, 0.16 (SD = 0.11) for the STPP model, and -0.12 (SD = 0.18) for the PDT prototype. As expected, adherence to the brief CBT ideal model was significantly closer than to both the STPP (t = -9.43; p = 0.000) and the PDT prototypes (t = 11.89;

p = 0.000). Additionally, adherence to the classic CBT prototype was significantly closer than to the STPP (t = 11.88; p = 0.000) and traditional PDT prototypes (t = -12.89; p = 0.000). Thus, our second hypothesis was also confirmed.

# Discussion

Different psychotherapy approaches have both common and specific features. Blagys & Hilsenroth<sup>23</sup> searched empirical studies that compared the process technique of manualized psychodynamicand interpersonal and cognitive-behavioral therapies and identified six CBT-specific process and techniques: 1) homework and outside-of-session activities; 2) direction of session activity; 3) teaching of skills used by patients to cope with symptoms; 4) emphasis on patients' future experiences; 5) providing information about patient's treatment, disorder, or symptoms; and 6) an intrapersonal/cognitive focus. Shedler<sup>7</sup> listed PDT features that are reliably distinguished from other therapies: 1) focus on affect and expression of emotions; 2) exploration of attempts to avoid distressing thoughts and feelings; 3) identification of recurrent themes and patterns; 4) discussion of past experience; 5) focus on interpersonal relation; 6) focus on therapeutic relationship; 7) and exploration of fantasy. As can be observed from tables 1 and 2, many of these distinctive processes and techniques are captured by our STPP and CBT prototypes.

As we had previously assumed, our STPP prototype includes typical STPP processes that are not usually present in long-term psychodynamic therapies and were not prominent in Ablon & Jones's PDT prototype.<sup>13</sup> Among these, we highlight item 23 (focus) and item 45 (support). Circumscribing a therapeutic focus to be analyzed during treatment is one of the technical differences between short-term and long-term PDT; this feature as well as the idea of limited duration is essential to help patients to achieve therapeutic change within this kind of approach to therapy.<sup>24,25</sup>

As mentioned earlier, we must consider that the responses of three of the experts in STPP used to generate the STPP prototype were very close to the process description of CBT produced from the responses of our cognitive-behavioral respondents. These experts are leading authors on STPP nationally. Their professed model is known as psychodynamic-relational-integrative, a fairly widespread and widely-practiced model of STPP in Brazil.<sup>26</sup> The clear overlap between ideal STPP and ideal CBT among a significant portion of our psychodynamic respondents indicates that short-term psychodynamic

practices can indeed be more heterogeneous than CBT. This conclusion is reinforced by findings from a recent study of distinctive and shared techniques of short-term CBT and PDT delivered in RCTs for depression that revealed that a substantial number of studies of STPP treatments included CBT techniques, such as patient education and reinforcement. In contrast, CBT treatments did not included PDT-specific interventions.<sup>27</sup>

On the other hand, we note that the newly developed prototypes do not share any of their 20 most characteristic items. This does not mean an absence of shared features. We must remember that the cutoff of 20 items is purely arbitrary, given that both prototypes contain all 100 PQS items. However, it does mean that the two models are clearly distinct from one another in their most prominent features, which is quite desirable for describing different theoretical approaches.

We also compared our CBT prototype with Ablon & Jones's CBT prototype.<sup>13</sup> We observed that the classic CBT prototype puts greater stress on support and directivity of the therapist than the Brazilian prototype. In the latter, the presence of item 12, insight, drew our attention – given that in theory insight tends to be a factor highly associated with the psychodynamic model. Although these differences might be due to some cultural differences between American and Brazilian styles of conducting CBT, it probably also reflects the time elapsed between the development of these models and current trends in CBT theory and practice, such as, for example, the trend towards integration that characterizes the so-called third wave in CBT.<sup>28</sup>

Application of prototypes to case 1 yielded mixed results in terms of the discriminant validity of the STPP prototype. Although the closer adherence to STPP in comparison to the classic PDT prototype confirms the usefulness of a more specific psychodynamic prototype for brief or short-term psychodynamic therapies, the STPP prototype still failed to classify this case of therapy as more psychodynamic than cognitive-behavioral. We cannot determine whether this is due to a limitation of the STPP prototype or simply the result a trend towards a mixed process that is particular to this case. We must bear in mind that this is a preliminary study of the application of the new STPP and CBT prototypes and that only two cases were analyzed. Further studies are needed to confirm the validity of the ideal models developed here.

Overall, the findings reveal the adequacy of the prototypes for STPP and short-term CBT and provide initial support of their validity. Not only do the prototypes capture specific features of each theoretical model, they also identify other features that are common to many short-term therapies. In general the results confirm our assumption that the technical characteristics of STPP were not adequately covered by the original PDT prototype.<sup>13</sup> The case analysis results are promising and suggest that the STPP and CBT prototypes we have developed can be used to study other short-term therapy cases. Furthermore, the findings appear to support the hypothesis that there is an important overlap of psychodynamic and cognitive-behavioral processes in STPP. Further studies may clarify the role of the patient's psychopathology and other characteristics in the degree of overlap between psychodynamic and cognitive-behavioral processes in short-term therapies.

This study has many strengths and limitations. Using a recognized methodology to examine the degree to which a treatment model is being consistently applied, we developed and tested ideal prototypes for short-term therapies. Most adherence studies depend on preexisting therapy manuals and methods to assess treatment adherence. The PQS-derived prototypes do not depend on either and are not only suitable for studying psychotherapeutic process in experimental settings, but also in naturalistic ones. These new prototypes for STPP and short-term CBT were developed from the PQS ratings of highly experienced practitioners, supervisors and teachers of their respective schools of therapy. None of the respondents felt that any important aspect of their ideal therapy process was missing from the 100 POS items. The reduced number of experts is not a limitation since Q-type factor analysis presumes fewer variables (in this case, respondents) than subjects or observations (in this case, PQS items).

However, the heterogeneity of the theoretical backgrounds of the experts on STPP may represent a limitation. In order to allow for representativeness of STPP variants among our experts, the three respondents whose ratings also exhibited convergence with the CBT therapists' ratings were not excluded from the STPP prototype. Consequently, our STPP model is not as "pure" as our CBT model. Since therapy models can vary within the same "brand name" and literature suggests that the psychodynamic approach may be more heterogeneous than cognitive-behavioral, this seemed to be the right decision to make. More studies are needed to evaluate whether a less conservative approach to development of an ideal STPP prototype would be preferable.

In small-N designs, participants are assessed repeatedly and comparisons within the same person are made over time. This kind of study allows for identification of patterns of therapeutic interaction that can be linked to therapeutic progress. Thus, systematic process studies are potentially relevant to producing knowledge for evidence-based practice. However, a most obvious limitation of any small-N approach is external validity. Replication is necessary to establish generalizability of findings. In this study we examined two complete therapy cases. Other complete cases and therapy samples might be studied to confirm the prototypes' validity and their contribution to psychotherapy research. The prototypes' predictive validity has not yet been examined.

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