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Disentangling the change–alliance relationship: Observational assessment of the therapeutic alliance during change and stuck episodes

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Abstract


Keywords: alliance; change and stuck episodes; process and outcome

The therapeutic alliance has received a great deal of attention both in the field of psychotherapy research and of clinical practice and training for the last four decades (Alexander & Luborsky, 1986; Corbella & Botella, 2003; Horvath, Del Re, Flückiger, & Symonds, 2011; Horvath & Luborsky, 1993; Horvath & Symonds, 1991; Lambert & Ogles, 2004; Orlinsky, Grawe, & Parks, 1994). To a great extent the popularity of this concept is due to the cumulative findings that support its association with positive treatment outcome along a wide variety of therapeutic models (Horvath & Luborsky, 1993; Horvath et al., 2011; Lambert & Ogles, 2004; Orlinsky et al., 1994). The effect size linking alliance to outcome has been consistently estimated between .25 and .30 which is a moderate correlation (r = .275), but a significant relationship (Horvath et al., 2011).

Nonetheless, a major question debated within this field of study is the specificity of this association between alliance and outcome. Originally, the most accepted definitions of the alliance considered it a global indicator of the quality of the collaborative
work between client and therapist (Bordin, 1979; Horvath & Luborsky, 1993; Luborsky, 1976). Consequently, research on the alliance-outcome association was based upon the measures of this global indicator of the alliance and of the final treatment outcome. This means that the measurement of treatment outcome focuses mainly on indicators at the level of what have been called the Big “Os” (Greenberg & PINsoF, 1986), or overall outcome of therapy. Therefore, the specific characteristics of the association between the interpersonal micro-processes that ultimately shape what is assessed as the general quality of the alliance and the increments in the “little o’s” that build up at the moment-to-moment unfolding of the change process needs to be further explored.

Considering the above arguments, the present study explored the association between alliance and outcomes that can be identified during the therapy process. Specifically, we examined this relationship within change and stuck episodes, in order to determine the differences between each type of episode as they manifested changes in the alliance at the micro-processes level. The definition of change and stuck episodes in this study is based on the model of Generic Change Indicators developed by Krause et al. (2006, 2007), which defines change episodes as events in which a positive shift of meaning in the patients’ representations about themselves and/or their problems takes place. Stuck episodes are defined as events during which the change process is temporarily held back in the sense that no new meanings are constructed (Arkowitz, 2002; Billow, 2007; BREhm & BREhm, 1981; Fernández et al., 2012; Herrera et al., 2009). Given that the existing evidence mostly concentrates on the broader relation of alliance and outcome, our approach to the study of the relation between alliance and change at the event-level may help to uncover the existence of specificities in of this association that influence productive therapeutic process.

**The Alliance as a Multi-Dimensional Phenomenon**

The therapeutic alliance has been often conceptualized as a multi-dimensional construct composed of an affective relational bond between client and therapist, as well as a general collaborative work on agreed upon tasks and goals (Bordin, 1979). However, these different dimensions of the alliance may have different emphasis throughout the therapeutic process according to therapy participants (Cummings, Martin, Hallberg, & Slemon, 1992; Fitzpatrick, Iwakabe, & Stalikas, 2005; Horvath & Marx, 1991). Webb et al. (2011), found that the agreement on tasks and goals factor is a better predictor of symptomatic changes in CBT than the relationship factor (bond). Meanwhile, other studies found a positive relationship between the bond dimension of the alliance and outcome in interpersonal therapies (Wetterslén, Lichtenberg, & Mallinckrodt, 2005), and between bond and clients’ sense of well-being and decrease in symptoms (PINsoF, Zinbarg, & Knochbloch-Fedders, 2008). Furthermore, Le Coco, Gullo, Prestano, and Gelso (2011), describe a positive significant relationship between clients’ early assessment of authenticity of their relationship with their therapists and the bond dimension, and therapy outcome in brief psychodynamic therapies. From a different perspective, Weerasekera, Linder, Greenberg, and Watson (2001) argue that the rise of the different dimensions of the alliance depends of the type of result proposed and prioritized in each modality of psychotherapy. Thus, symptomatic improvement was associated with the agreement (goals and tasks) dimension, given the centrality of the therapeutic strategies that target the remission of symptoms; while improvement in client’s self-esteem and interpersonal relationships was associated to the bond dimension of the alliance, due the centrality of interpersonal relationship achieved with the therapist.

These studies underscore the multi-dimensionality of the alliance process and the variations in the relationship between the different components of this phenomenon. Nevertheless, these associations remain at a global level, and the specific components through which the micro-processes that constitute the alliance relate to the configuration of therapeutic change needs still to be further examined. In that sense, we agree with Hentschel (2005), who points to the necessity of examining its variation in connection with therapeutic process events. This would imply a need to examine the specific elements that compose the relationship between the alliance dimensions and process, through a micro-analytic approach.

**The Alliance During Key Therapy Events**

Process-outcome research (Bastine, Fiedler, & Kommer, 1989; Marmar, 1990) is an attempt to better understand what is effective, in what context and for whom during the course of a therapeutic relationship (Orlinsky, Rønnestad, & Willutzki, 2004). Within this research context, the events paradigm (Rice & Greenberg, 1984; Safran, 2003), an approach that examines relevant in-session events of the therapeutic process, has proven to be a fruitful pathway for accessing the key mechanisms that lead to productive processes within the therapeutic
endeavour (Helmeke & Sprenkle, 2000; Krause et al., 2006; Rice & Greenberg, 1984). The focus of this kind of research is on unveiling the mechanisms through which important turning points in therapy are realized, or on the contrary, the processes that hinder such possibilities.

Within this research approach, most studies have focused on in-session segments that relate to change, such as empowerment events (Timulak & Elliott, 2003), innovative moments (Gonçalves, Matos, & Santos, 2009), events in which insight is achieved (Elliott et al., 1994), and change moments (Krause et al., 2006, 2007); and events in which the change process is hindered, or the collaborative work between patient and therapist interrupted, such as difficult moments, stuck episodes (Herrera et al., 2009), ruptures (Safran & Muran, 2000), refusal (Billow, 2007), reactance (Brehm & Brehm, 1981), and resistance (Arkowitz, 2002).

We believe that inadequate attention has been given to the examination of the specific moment-to-moment elements that build the therapeutic alliance and how these relate to the specific changes that take place. As Horvath (2006) suggests, research on the alliance should identify what he calls “interpersonal events” that take place during small therapy segments which in turn are immersed within therapy tasks and that lead to specific short-term goals in therapy. Following this interest, the present study intends to examine the ways in which the specific elements of the therapeutic alliance— and therefore of the client-therapist exchange-, manifest themselves within change and stuck episodes of the therapeutic process.

Change and Stuck Episodes in Therapy

Change episodes have been defined by Krause et al. (2006, 2007) as the manifestation of a transformation of client’s patterns of subjective interpretation and explanation referred to him/herself and his/her own problems, that ultimately leads to the development of new subjective theories (Krause et al., 2006, 2007). The process of transformation of meanings and patterns of interpretation is considered generic to all therapeutic approaches, and previous studies have demonstrated that change episodes are events that are reliably observable by external raters, across a variety of psychotherapy orientations and modalities (Altimir et al., 2010; Krause, 2005; Krause et al., 2006). Each change episode, in turn, can be associated based on its specific content, to one of 19 sequential Generic Change Indicators (GCI). These GCI describe a progression of change from more initial movements aimed towards a consolidating the structure of the therapeutic relationship and questioning or deconstructing client’s usual patterns of interpretation, to a more elaborated reconceptualization and consolidation of new understandings. Under this assumption, the 19 GCIs may also be theoretically grouped in three main progressive levels of change that reflect the level of complexity of the change attained (Altimir et al., 2010). According to this model, and based on previous findings (Krause, Altimir, Pérez, & de la Parra, 2015) a therapy with good levels of outcome would ideally show more Level 1 changes during the initial phases of therapy, and more Level 2 and Level 3 changes towards the middle and final phases of therapy. For a detailed description of the GCI, see Table I.

Stuck episodes are defined as specific in-session segments in which clients become stalled in their change process, which is manifested in a persistent reiteration of client’s maladaptive cognitive, emotional and/or behavioural patterns which relate to his/her problems and that temporarily holds back the change process (Fernández et al., 2012; Herrera et al., 2009). Stuck episodes may also be described according to their themes by assigning labels contained in a list of stuck indicators (see Table II). Since no progression—in the sense of the construction of new meanings- is involved in these events, this description does not imply a sequence, as it does in the case of GCIs. During stuck episodes, therapists attempt to initiate a productive interaction fails, and both client and therapist seem uncoordinated in terms of the direction to take in order for therapeutic work to proceed adequately.

It is reasonable to assume that during stuck episodes, in which a temporal suspension of client’s change process due to a repetition of maladaptive patterns is observed, the collaborative work between client and therapist is compromised, in the sense that they may seem to be going different ways or not be “in the same page”. On the other hand, when a transformation in client’s understanding of his/her problems is taking place, we may assume that both participants share a sense of purpose and direction towards the goals of treatment. We developed this project to examine how the change and stuck episodes interact with the development of the alliance.

The present study attempts to establish the differences in the quality of the alliance in general, and also specifically how the dimensions of bond, tasks, and goals vary differentially in change and stuck episodes. Our initial hypothesis was that there will be a better quality of the alliance in change episodes compared to stuck episodes.
Method

Ours is a descriptive study based on the utilization of mixed methodologies. Qualitative procedures were implemented to identify and delimit change and stuck episodes, while quantitative methods were employed to determine the level of therapeutic alliance within these episodes, to evaluate inter-rater reliability, as well as to statistically compare the levels of alliance observed contrasting the two types of episodes as well as considering therapy outcome.

Sample

The sample was composed of 73 events—35 change and 38 stuck episodes—, identified in 14 completed brief psychotherapies of different theoretical orientations: 8 psychodynamic, 2 constructionist, 2 CBT, and 2 gestalt. Therapy length ranged from 6 to 60 sessions, with a mean duration of 22 sessions. Six male and five female therapists—10 of whom had more than 10 years of clinical experience—, participated in this study. Seven therapists—five male and two female—, had a psychodynamic orientation (one of them conducted two of the therapies studied), while the two gestalt therapies were conducted by a single male therapist; two female therapists were constructionist, and one female therapist was CBT oriented (this last one conducted the two therapies belonging to this approach).

Clients participating in this study were recruited from adult outpatient university and semi-private mental health care centres. Eleven clients were female and three were male, and their ages ranged from 20 to 65 years (mean of 37.6, DS = 11.1). The primary presenting problems reported by clients were panic attack (one male and one female), depressive symptoms (five females), anxiety symptoms (three females, two males), and interpersonal difficulties with family members (two female). Nine of the clients had university or undergraduate education, and five of them had high school education or less. From the 14 therapies studied, 9 (64.3%) were successful, and 5 (35.7%) were unsuccessful, based on the Reliable Change Index (RCI) (Jacobson & Truax, 1991) of the Outcome Questionnaire (OQ–45.2).

A total of 379 episodes (change and stuck) were identified (see Table III), after which a sub-sample of episodes was intentionally selected according to

<table>
<thead>
<tr>
<th>Levels of change</th>
<th>Specific content of generic change indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Initial consolidation of the structure of the therapeutic relationship</td>
<td>1. Acceptance of the existence of a problem</td>
</tr>
<tr>
<td></td>
<td>2. Acceptance of his/her limits and of the need for help</td>
</tr>
<tr>
<td></td>
<td>3. Acceptance of the therapist as a competent professional</td>
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<td></td>
<td>4. Expression of hope</td>
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<td></td>
<td>5. Questioning of habitual understanding, behaviour and emotions</td>
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<tr>
<td></td>
<td>6. Expression of the need for change</td>
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<tr>
<td></td>
<td>7. Recognition of his/her own participation in the problems</td>
</tr>
<tr>
<td>II. Increase in permeability towards new understandings</td>
<td>8. Discovery of new aspects of self</td>
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<td></td>
<td>9. Manifestation of new behaviour or emotions</td>
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<td></td>
<td>10. Appearance of feelings of competence</td>
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<td></td>
<td>11. Establishment of new connections</td>
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<td></td>
<td>12. Reconceptualization of problems and/or symptoms</td>
</tr>
<tr>
<td></td>
<td>13. Transformation of valorizations and emotions in relation to self or others</td>
</tr>
<tr>
<td>III. Construction and consolidation of a new understanding</td>
<td>14. Creation of subjective constructs of self through the interconnection of personal aspects and aspects of the surroundings, including problems and symptoms</td>
</tr>
<tr>
<td></td>
<td>15. Founding of the subjective constructs in own biography</td>
</tr>
<tr>
<td></td>
<td>16. Autonomous comprehension and use of the context of psychological meaning</td>
</tr>
<tr>
<td></td>
<td>17. Acknowledgement of help received</td>
</tr>
<tr>
<td></td>
<td>18. Decreased asymmetry between patient and therapist</td>
</tr>
<tr>
<td></td>
<td>19. Construction of a biographically grounded subjective theory of self and of his/her relationship with surroundings</td>
</tr>
</tbody>
</table>

Table I. Generic change indicators (Krause et al., 2006).

Table II. List of stuck indicators (Fernández et al., 2012).

| A. Denial or minimization of the existence of a problem |
| B. Denial of the need for help and non-acceptance of own limitations |
| C. Expression of despair or hopelessness (demoralization) |
| D. Not taking responsibility for own actions |
| E. Emergence of a sense of incompetency |
| F. Increase of concern or ambivalence towards change |
| G. Attribution of own problems to others |
| H. Resistance to consider new ways of behaviour, thought or emotions |
| I. Questioning of the therapist as a competent professional |
| J. Resistance to establish associations between one’s own symptoms, emotions and behaviours |
| K. Resistance to a reconceptualization of the initial definitions attributed to own problems or symptoms |

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the following procedure. First, each therapy was divided into three phases—initial, middle, and final—by dividing the total number of sessions by three. One change and one stuck episode were selected from each of these three therapy phases, so that each therapy ideally yielded a total of three change and three stuck episodes.

In order to assure that the sample did not privilege one level of change—of the theoretically grouped hierarchy of GCI—over another, we restricted the selection of episodes so that each level of change was represented in each phase of therapy. Thus, for the initial phase of each therapy, change episodes corresponding to Level I (Initial consolidation of the structure of the therapeutic relationship) were selected, for the middle phase, change episodes corresponding to Level II (Increase in permeability towards new understandings) were selected, and for the final phase, change episodes corresponding to Level III (Construction and consolidation of a new understanding) were selected. The final distribution of change episodes per therapy included one Level I change episode for the initial phase of therapy, one Level II change episode for the middle phase, and one Level III change episode for the final phase of therapy. If these criteria could not be met, for example, that no Level III change episode was present during the final phase of therapy, no change episode was selected for that phase.

In the case of stuck episodes, one episode per therapy phase was selected, preferring episodes that occurred in the same or a nearby session of a selected change episode. If no stuck episode was present during any of the therapy phases, no stuck episode was selected for that phase. This selection procedure yielded a total of 73 episodes, 35 change episodes and 38 stuck episodes. The mean duration of the change episodes selected was of 6.51 min (with a SD = 7.2), and of the stuck episodes was of 5.56 min (SD = 0.75).

Measures

Therapeutic alliance. The alliance was assessed using the Spanish version of the Vanderbilt Therapeutic Alliance Scale-Short Form (VTAS-SF), an observational version that is a brief version of Hartley and Strupp’s (1983) original VTAS. The translation of the scale was carried out by one of the authors, a fully bilingual clinical psychologist and researcher. This scale was developed based on the contributions to the definition of alliance made by different authors: (a) the three-dimensional definition proposed by Bordin (1979), (b) Greenson’s (1965) definition of the alliance as a product of the client’s motivation to solve his/her problems, and (c) Luborsky’s (1976) emphasis on the importance of the development of a common working frame between therapist and client, oriented towards understanding the possible causes and solutions of the client’s problems (Shelef & Diamond, 2008). The VTAS-SF consists of 5 items that, according to the authors, evaluate the therapeutic alliance along the dimensions of bond (Items I and III), tasks (Items II and V), and goals (Items IV and V). Shelef and Diamond (2008) have supported the reliability of the scale, indicating a high internal consistency, with coefficient alphas of .90 and .91 (for the two groups of patients assessed, adolescents and parents) and its concurrent validity with the full-length form (r = .94, p < .001, n = 70), (r = .90, p < .001, n = 58), while showing a good to excellent
inter-rater reliability with intra-class correlation coefficients (ICCs) \( p < .001 \) ranging from .72 to .87.

**Outcome.** Therapy outcome was assessed by Lambert’s *Outcome Questionnaire* (OQ-45.2) (Lambert et al., 1996), which has been adapted and validated for Spanish speaking Chilean population by von Bergen and De La Parra (2002). The RCI between applications of the questionnaire at the beginning and end of therapy respectively, was used as criteria to discriminate between successful and unsuccessful therapies. This index evaluates change as reliable due to its clinical relevance for the process (Jacobson & Truax, 1991). For the Chilean population the RCI was defined at 17 points, test-retest reliability was of 0.90 for the total scale in non-clinical samples, and Cronbach’s Alpha was of 0.91 both in clinical as well as non-clinical samples (von Bergen & De La Parra, 2002). For the purposes of the present study, the category of successful therapy included those therapies whose RCIs were of 17 points or more, while the category of unsuccessful therapy included those therapies whose RCIs were less than 17 points.

**Procedure**

Identification of change and stuck episodes. Each therapy in this study was observed through a one-way mirror as it was taking place and/or through videotape records by one pair of independent raters. A total of seven pairs of expert raters participated in this observation process. Each rater independently identified change and stuck episodes based on the Manual for the Observation, Record, and Coding of Change and Stuck. Raters were researchers and therapists of different theoretical orientations (CBT, psychoanalytic, social-constructionist, and humanistic), and were trained and supervised in the observation of change and stuck episodes and indicators by expert raters with previous training, throughout at least one complete therapy before rating the sessions included in this study (Krause et al., 2015).

Each change moment identified was labelled with a particular Generic Change Indicator (GCI) from the list of 19 indicators (Krause et al., 2007) (see Table I). The criteria for the identification of change moments included: (a) theoretical correspondence with the indicators contained in the list of 19 GCIs; (b) novelty, meaning that the event has to be new during the process. In spite of the fact that each of the 19 GCIs may appear more than once during a particular therapy, the specific theme to which this change refers should appear just once. As an example, GCI 9, which refers to the manifestation of a new behaviour, may refer in a first instance to patient speaking openly about her feelings of distrust towards therapy, and in another moment it may indicate her assertive behaviour in her relationship to her boss. Therefore, if the client speaks of her feelings of distrust towards therapy in a subsequent session, it would no longer be considered a “new” change, since it was identified previously; (c) verifiability, which means that the event indicated as a change moment has to be clearly observed in the session; and (d) consistency, meaning that the change observed is consistent with nonverbal cues and is not denied later on in the session or in the therapy (Krause et al., 2006, 2007).

Once each change moment was identified, a bigger unit called “change episode” was demarcated around this event. This process means that therapeutic interactions observed in each participant’s speaking turns are tracked back from the occurrence of the change moment to the beginning of the specific theme to which that change moment refers (Krause et al., 2006, 2007).

Stuck episodes were identified according to the criteria of: (a) theoretical correspondence with the stuck indicators (see Table II); (b) verifiability or actuality, that is, the event must occur and be observable in the session; and (c) nonverbal congruency, the verbal and nonverbal elements of the client’s behaviour during these events are consistent with each other (Herrera et al., 2009). Additionally, specific methodological criteria must be satisfied for the identification of stuck episodes: (a) these episodes must be at least at a 10 min distance from any change episode, and (b) it must have a minimum duration of 3 min without interruptions (Herrera et al., 2009). This temporal demarcation responds to the intrinsic difference between change and stuck episodes. Change episodes are defined by the presence of a culmination of the interactions that lead to change—the change moment—, which is clearly observable during this therapy segment. On the contrary, stuck episodes are characterized by a lack of change and a reiteration of interactions and behaviours, therefore no culmination or forward movement of the process can be observed. Three minutes is considered sufficient time for this reiteration to be evident, and 10 min away from a change episode assures that the stuck episode is not confounded with other phenomena such as therapeutic work, which may involve reiterations and some level of stagnation, but from which client and therapist finally generate something productive that leads to change.

After each rater independently identified change and stuck episodes, these were compared and discussed with each partner, leaving those in which
both raters agreed that the selection criteria were satisfied. This “inter-subjective consensus” procedure, often involved a second review of the video-taped session (as well as the session transcript) in order to reach consensus. Given that this is a complex system that requires taking into consideration the entire therapeutic process as well as context information in order to accurately identify change and stuck episodes, for the inter-rater reliability estimation it was more convenient to test the whole therapy process, and not the episodes, as the unit of analysis. Therefore, inter-rater agreement was calculated, before inter-subjective consensus, for two individual therapies from the sample, showing values of $K = .82$, $p \leq .001$, in one of these therapies and of $K = .72$, $p \leq .05$, in the other.

**Assessment of the alliance within episodes.**

Two independent raters -different from those who identified change and stuck episodes- observed the video-taped segments of the episodes selected and completed the Spanish version of the VTAS-SF. The raters did not have any a priori information about the therapy outcome or the type of episode being rated, although given the nature of the GCI rating system it cannot be assumed that they were completely ignorant about the nature of the episodes. Twenty-seven percent of the 73 episodes (12 change and 8 stuck episodes randomly selected) were rated by both judges to assess inter-rater reliability, using ICC. Results indicate an adequate reliability level on the total scale (ICC = .84, $p < 0.001$), and on each one of the items: Item I (ICC = .74, $p < 0.001$); Item II (ICC = .71, $p < 0.001$); Item III (ICC = .73, $p < 0.001$); Item IV (ICC = .79, $p < 0.001$); and Item V (ICC = .76, $p < 0.001$). Reliability was also found to be adequate in change episodes (ICC = .86, $p < 0.001$) and stuck episodes (ICC = .77, $p < 0.001$) analyzed separately.

**Data analysis.** VTAS-SF score was regressed by using hierarchical regression (HLM version 6.8) in a two-level model, in which the episodes (Level-1, $N = 73$) were nested in therapy (Level-2, $N = 14$). This model corresponds to the nested nature of the variables studied; the presence of a given episode (either change or stuck), is not independent from the patient who is experiencing this event.

Initially, a fully unconditional model was applied to the outcome variable, in order to estimate its reliability and the adequacy of the multilevel analysis. After that, a Level-1 model was fitted, which was composed by the Intercept and the Episode Type slope (the expected change in VTAS mean score in change episodes). Episode Type was coded as a dummy variable ($0 = $Stuck & $1 = $Change Episode).

Given the non-probabilistic nature of the sample of patients in this study, and that therapy success and potentially the length of therapy, may impact the quality of the overall alliance process, we attempted to control the effect of these variables over the alliance at the event-level, by including them as control variables. The final model estimated (Full Maximum Likelihood estimation method) was:

$$VTAS_{\text{score}} = \gamma_0 + \gamma_1 \times \text{Success} + \gamma_2 \times \text{Therapy Length} + \gamma_3 \times \text{Episode Type} + u_{ij} + u_{ij} \times \text{Episode Type} + r_j,$$

where $\gamma_0$ represents the VTAS score in Stuck Episodes (controlling for Therapy Success and Therapy Length); $\gamma_1$ represents the Therapy Success effect (this was a control variable, centred to the Grand Mean); $\gamma_2$ represents the Therapy Length effect (this is a control variable, so it was also centred to the Grand Mean); $\gamma_3$ represents the change in VTAS score associated to Change Episodes. $u_{ij} + u_{ij} \times \text{Episode Type} + r_j$ are random effects associated to the Intercept, the Episode Type Slope & Level-1 (respectively).

Finally, in a preliminary attempt to explore how the different elements of the alliance assessed by each one of the five items of the VTAS behave in each type of episode, the same HLM model was applied to the scores of each item separately. This final model was estimated using a multilevel proportional odds (PO) model. This was estimated by restricted PQL estimation method (Ordinal level-1 distribution) because of the ordinal distribution of individual items. This procedure was suggested by O’Connell, Goldstein, Rogers, and Peng (2008), who stated that, “analysis strategies for multilevel ordinal data are extensions of single-level ordinal data, mirroring the process of adapting logistic regression procedures for multilevel dichotomous data” (p. 209).

Specifically, the PO model is characterized by a sequence of cumulative outcomes and employs an extension of the logit link used for dichotomous data. The assumption of proportionality is useful in the analysis of ordinal data based on their parsimony and it corresponds to models in which the interest is to ascertain the likelihood of a response being at the same level or below a given outcome category ($k$). For example, being VTAS item scale: $K = 6$ categories (values 0, 1, 2, 3, 4, and 5), their cumulative proportions can be partitioned into “5 splits” ($K-1$) as follows: $k = 0, k < 1, k < 2, k < 3, k < 4$, where $k$...
represents each of the sequential response category possibilities \((k \leq 5)\) it is not necessary to account for the cumulative representation because all observations are included below it).

In a PO model, the likelihood of an evaluation of alliance falling into the \(k\) category or below is assessed at Level-1 (Episode Level) and Level-2 predictors (Therapy). A predicted cumulative logit of zero implies there is no difference between the Episode probability of being in a certain category (or below) and being above that alliance category. A positive cumulative logit indicates that the likelihood of being in lower categories is greater, and negative cumulative logit implies that the likelihood of being in higher category is greater (see Table IV; Episode Type parameters, in each one of the VTAS Items).

This estimated cumulative logits can be transformed to predicted cumulative probabilities based on the equation \(\text{Probability} = \exp (\gamma_i)/(1 + \exp (\gamma_i))\), where \(\gamma_i\) are the log-odds estimated by the model (O’Connell et al., 2008). As it can be appreciated in Figure 1, Stuck Episodes probabilities will be estimated based on estimated parameters by the model, as follows: when the alliance score is below or equal to zero, the estimated log-odds corresponds to the Intercept value; when the alliance score is below or equal to one the estimated log-odds corresponds to the Intercept plus Type Episode parameters plus \(d_1\), and so on. During Change episodes, their probabilities will be estimated including the Type of Episode parameter in the estimation of log-odds (i.e., when the alliance score will be below or equal to one the estimated log-odds corresponds to Intercept plus Type Episode parameters plus \(d_1\)).

**Results**

**Level of Alliance and Type of Episode**

Given the heterogeneity of therapy outcomes (OQ-45.2 scores) and therapy length (total number of sessions) in this study, analyses were carried out controlling for both these variables.

Results of HLM analysis (see Table IV), indicate that there were significant differences depending on the type of episode \(\gamma_{10} = 4.18\ (0.91), p < 0.001\). Thus, in change episodes, the level of observed alliance was significantly higher \((M = 17.85)\), than in stuck episodes \((M = 13.67)\), (controlling for Therapy Success and Therapy Length).

Results of the exploratory analysis of each item separately, indicate that the effect of Episode Type on the cumulative log-odds \(^3\) of each alliance item score is negative and statistically different from zero in all cases, controlling for Therapy Success and Therapy Length. Thus Item I \(\gamma = -1.96\ (0.54), p < 0.01; \) Item II \(\gamma = -1.57\ (0.50), p < 0.01; \) Item III \(\gamma = -1.64\ (0.51), p < 0.01\); Item IV \(\gamma = -2.79\ (0.69), p < 0.001\); Item V \(\gamma = -2.14\ (0.54), p < 0.01\). In the cumulative model, the dependent variable is the estimated probability of \(R_i \leq k\), that is, the probability of being equal or less than a specific value of VTAS item, rather than greater than that specific value. Therefore, the results of the present analysis indicate that during Change Episodes, there is less probability that the item score be equal or less than a specific value of VTAS item. In other words, it is more likely that the item score be greater than the “category value” \((k \leq i, i = 0–4); that represent a specific value of VTAS item\) during Change Episodes than Stuck Episodes.

For example, Figure 1 shows results of item IV of the VTAS, which refers to “What extent did the therapist and patient together share a common viewpoint about the definition, possible causes, and potential alleviation of the patient’s problems”. The probability of category \(k \leq 2\), represents the probability of coding a value of 0 (“there is no agreement of the definition of the problem”), 1 or 2 (“client and therapist reach agreement very infrequently”); compared to the probability of coding this item with values 3, 4, or 5 (representing a greater agreement between them). Thus, only 3.1% of episodes were rated as \(k \leq 2\) in Change Episodes compared to 34.2% in Stuck Episodes. Instead, the probability of category \(k \leq 4\), represents the probability of coding a value of 4 or less (that is, client and therapist reach no agreement, reach it very infrequently or most of the time) compared to the probability of coding this item with values 5 (“client and therapist agree on both the problems and the suggested solutions”). The 96.2% of Stuck Episodes were rated as \(k \leq 4\) compared to 60.5% of Change Episodes. In other words, 39.5% of Change Episodes were rated 5 (indicating the highest level of alliance) compared to 3.8% of Stuck Episodes. Therefore, it is more likely that the item score be greater than the “category value” \((k \leq i, i = 0–4)\) during Change Episodes than during Stuck Episodes. This same pattern of results was present across all VTAS items.

**Discussion**

Results obtained in this study support our hypothesis, that is, a higher level of alliance was rated during change episodes than during stuck episodes, controlling for session number as well as for therapy outcome. This result argues in favor of a relationship between good alliance and change process at the moment-to-moment course of therapy. It supports the notion that alliance and change are linked
processes, at least during short time intervals of the therapy session across the therapeutic process. This opens up the question of whether there is a reciprocal relationship between these two variables as therapy oscillates between more and less productive instances throughout its ongoing evolution. Furthermore, it could be hypothesized that the quality of the alliance increases during those specific exchanges in which specific interventions and/or interactions between participants yield significant transformations in client’s subjective theories. The particular shape this relationship takes will need to be further investigated.

It can be argued that the findings of this study that support the alliance-change association at the event-level can be explained by the fact that both phenomena somehow overlap in the behaviours the raters need to observe in order to assess them. Nevertheless, each concept focuses on different aspects of that behaviour, for example, the VTAS does not ask about client change, and the GCI focuses primarily on the content of the client’s representational change, although it may relate to relational aspects of the process. In that sense, it is arguable that most process measures overlap in some domains, since therapeutic process transpires within the relational exchange between therapy participants. Nonetheless, these process measures make different emphases.

The results of the exploratory item analyses suggests that during stuck episodes we obtained scores indicating lower alliance, especially when compared to change episodes, where the alliance was higher. This was the case for all items of the VTAS-SF, those assessing the level of trust and experience of therapist’s understanding and support (bond) (Items I and III), those assessing level of agreement on methods of therapeutic work an tasks...
of sessions (Items II and V), and those assessing participants’ shared definition of client’s problems and goals of treatment (Items IV and V). However, this was clearly marked for items IV and V, which assess the level of agreement on therapy goals. Although these results were not statistically significant, it opens up the question whether therapist’s and client’s potential disconnections on the process of construction of new meanings and understandings, would eventually affect the shared definition and approach of the client’s problems and of the directionality of their work together, when they are going through a stuck episode. This may reflect where the two concepts—agreement on goals and stuck episodes—are linked when examining them from a moment-to-moment basis, that is, what makes the goal dimension seem more sensitive to the stuck situation. Future research might be interested in investigating further the specific meaning and clinical implications of these findings.

Another relevant issue of this research is that we did not only relate alliance and change at the event-level, but we also adjusted to the particular phase of treatment. This responded to the theoretical notion of the progression of change behind the GCI model. That is, we were interested not only in studying any “movement” that conveyed change and therefore progression in therapy, but instead our focus was on those movements that are appropriate to each therapy phase. We believe setting these restrictions in the selection of the sample worked in favor of the power of this study.

We consider the approach to the study design examining the alliance–outcome relationship on a small scale, is an advancement as it focuses on the specific moment-to-moment elements involved in this association. This perspective goes beyond a general description of the association between the global results of therapy and the alliance as a general description of the quality of the relationship. Through this research approach, the present study has attempted to observe and capture—as a photography—the momentary pulse of the state of the relationship, that is, the moment-to-moment oscillations of the quality of the alliance as it is manifest at the event-level at a given moment, in which there is a progression or temporal detention of the process of client’s construction of new meanings. In that sense, the results of this study showing a positive association between good rating of the alliance and change episodes, contribute to the better knowledge about the kinds of interactions between client and therapist that accompany the occurrence of stuck and change episodes. The possibility of associating the quality of the relational phenomena to specific contents of the change or stagnation process becomes a valuable tool for the research of the association between the “little o’s” and the ongoing variability of the alliance.

Further research on the specificities of this association will comprise a valuable contribution to the better understanding of what Horvath (2006) has called “interpersonal events” during the ingoing process of therapy. We also consider that the results of this study constitute an initial input for subsequent studies of the mutual influence between alliance and therapeutic outcome at the moment to moment level of the therapeutic endeavour, through a more fine-grained examination of the mechanisms and dynamic processes that build up this “little outcome-alliance” association.

The clinical relevance of these findings is that as it is likely that therapists, once they have identified that
the process is stagnating in their clients, and presumably in the relationship too, to remedy the situation, they would have to pay attention to the elements of the alliance that may be at stake during those instances. This means that instead of intervening at the content level of the repetitive pattern of functioning (as it has been observed in the sessions analyzed for this study), the therapist should attempt a collaborative re-construction or re-formulation of the therapeutic aims. This may contribute to the client’s sense of coherence between what he/she is doing with the therapist and his/her perception of what his/her problems are, and what direction therapy needs to follow in order to solve them. The results of this study of the alliance and its relation to outcome may be a contribution for future investigations examining characterization of therapy segments that contribute or hamper the client’s change process in conjunction with the relational aspects that are involved in the process.

The limitations of this study include the number of episodes we analyzed, which may affect the statistical power of our results. As well we examined the relationship between process outcome and alliance from the observer’s perspective, where indicators of alliance and change were based on client and therapist behaviour during the therapeutic exchange. While this is a useful contribution, it must eventually be complemented in future research by the participants’ phenomenological view on these events at the moment-to-moment level. At the same time, it would advance the generalizability of results if we had full sample of all change and stuck episodes of therapy, instead of a sub-sample.

Although the inclusion of four different types of therapies intended to make our results more generalizable, we also consider that different theoretical approaches may influence differently the ways in which the alliance is built, consolidated and maintained, and therefore could be expressed differently within the in-session episodes studied. This underscores the relevance of studying full samples of therapy episodes as a next step in this line of research.

We took special care of not giving observers who rated the episode alliance any information about the outcome of the case or whether they were observing a stuck or change episode. Nevertheless, we are aware that given the nature of the rating system and of the concepts underlying the definition of change and stuck episodes, it cannot be assumed that raters are completely ignorant about the kind of phenomena they are observing. We also believe this difficulty is partially inherent to the research of therapy process based on observational approaches.

Although the association between therapy outcome and the expression of the alliance within change and stuck episodes was not the aim of this study, future research should attempt to establish this relationship. It would be relevant to associate the small variations of the alliance and the little outcomes or micro-changes (change and stuck episodes) with the general results of therapy. This would not only strengthen the results of the alliance-outcome association at the event-level, but would also allow a better understanding of the elements involved within these therapy events that ultimately yield influence on overall therapy outcome. Yet the approach to the study design described in this investigation as well as the results indicating a positive association between alliance and change during small segments of therapy, contributes to the development of an innovative line of inquiry into process as well as into alliance research. We believe this approach promises the generation of new knowledge of a different order than what has traditionally been found, that we hope will complement and expand our understanding and monitoring of the psychotherapeutic process.

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Notes
1 Mixed effects model of two factors, where the effects of the subjects are random and the effects of the measures are fixed. Individual measures.
2 Given the theoretical nature of the sampling of session episodes, the first step was to determine if there were differences in the level of the alliance according to therapy phase (initial, middle, and end) in which these episodes occurred. The purpose of this was to determine if the sampling of the episodes had any impact on the dependent variable. A 3-Levels HLM analysis was carried out: Level-1: episode, Level-2: therapy phase and Level-3: Therapy. An unconstrained 3-level models indicate that there was not variability at Level-2 [Variance of Random Effect $= 0.96$, df $= 26, p = .42$], so a 2-Level model was estimated, with episode at level 1 and therapy at level 2. Subsequently, the episodes from each therapy phase were collapsed.
3 To evaluate the proportional odds assumption of these analyses, we did a series of binary logistic regressions represented by the cumulative model (O’Connell, Goldstein, Rogers, & Peng, 2008). A series of dummy dependent variable were estimated for each item (i.e., $R_0 \leq 0, R_1 \leq 1 \ldots R_n \leq 4$). These dummy variables were regressed on the HLM model $\gamma_{00} + \gamma_{01} \cdot \text{Success} + \gamma_{02} \cdot \text{Therapy Length} + \gamma_{10} \cdot \text{Episode Type} + \delta_{00} + u_{i0}$.
Type + \( r_k \) using a full maximum likelihood estimation method (Level-1 Bernoulli distribution). The proportional odds assumption was supported in the 5 VTAS individual items, but only for dummy dependent variables \( R_k \geq 2 \). In the case of \( R_k \leq 2 \), the probability was so low (lower than 2.0%) that the logit link function did not converge.

References


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