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# Psychotherapist's Persuasiveness in Anxiety: Scale Development and Relation to the Working Alliance

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The therapist's facilitative interpersonal skills (FIS) have been proposed as a characteristic of effective therapists (Anderson, McClintock, et al., 2016, Anderson et al., 2019, Anderson et al., 2020; Heinonen & Nissen-Lie, 2020) and a predictor of therapy outcomes (Schöttke et al., 2017; Wampold & Imel, 2015). The psychotherapist's persuasiveness constitutes one of the FIS proposed to enhance the client's expectations and sense of hope (Frank & Frank, 1993; Ilardi & Craighead, 1994) and perceived treatment credibility (Strong, 1968). According to Jerome Frank, clients enter psychotherapy in a state of demoralization, characterized by feelings of loneliness and despair. This state of distress originates from the client's maladaptive meanings that prevent clients from overcoming their complaints and promote internal conflicts (Frank & Frank, 1993). All psychotherapists provide a treatment rationale that explains the client's problems adaptively and describes how psychotherapy can relieve them, promoting hope, clarity, and self-efficacy (Frank, 1974). Delivering a cogent rationale focused on clients' problems is proposed to be a fundamental aspect of psychotherapy that enhances clients' expectations, without which therapies will not be as effective in symptom reduction (Yulish et al., 2017). Despite being proposed as a crucial determinant of psychotherapy outcomes (Frank & Frank, 1993), the psychotherapist's persuasiveness remains underinvestigated (Ametrano et al., 2017).

## Psychotherapist's Persuasive Behaviors

Delivering a treatment rationale is insufficient to enhance the client's expectations: it needs to be presented convincingly (Constantino et al., 2018). Providing a detailed and clear explanation without being too exhaustive (Horvath, 1990), mentioning that it is a modern and empirically supported treatment, and using technical language and clinical cases to describe it, is suggested to enhance the client's expectations, self-efficacy, and engagement in therapeutic tasks (Ahmed & Westra, 2009; Ametrano et al., 2017; Kazdin & Krouse, 1983). Rationales focused on the client's specific complaints (Yulish et al., 2017), adapted to the client's beliefs (Wampold, 2012) and culture (Benish et al., 2011), accompanied by charismatic nonverbal behaviors, are thought to be persuasive (Heide, 2013; Otterson, 2015) and stimulate emotionally (Neumann & Strack, 2000). Despite the importance of communicating the rationale and previous attempts at measuring the psychotherapist's persuasiveness (Anderson & Patterson, 2013; Packwood & Parker, 1973; Truax et al., 1968, 1970), there still is not a psychometrically sound scale that explicitly measures the psychotherapist's persuasiveness (Vaz & Sousa, 2021).

## Psychotherapist's Persuasiveness and the Therapist-Client Dyad

The psychotherapist's persuasiveness is also connected to aspects of the therapist-client dyad (Frank, 1986). A study about the influence of FIS on client-rated working alliance suggests that therapists with higher interpersonal skills establish stronger alliances that grow throughout therapy (Anderson, Crowley, et al., 2016). The working alliance is a pan-theoretical concept that refers to the emotional bond between the therapist and client and the agreement on tasks and goals (Bordin, 1979), and is considered an essential predictor of therapeutic success (Flückiger et al., 2019;

Wampold & Imel, 2015). Frank (1987) proposes that the client's acceptance of the rationale is dependent on the working alliance. A persuasive therapist establishes an emotional connection with the client that conveys an empathic understanding of their problems and promotes the acceptance of new meanings (Frank, 1987). By helping clients adopt adaptive meanings, the psychotherapist facilitates the agreement on goals and involvement in tasks (Bordin, 1979). Safran and Segal (1990) propose that presenting a persuasive rationale can facilitate establishing the working alliance and repairing ruptures in the working alliance (Safran et al., 2011). The relationship between the psychotherapist's persuasiveness and the working alliance remains uninvestigated (Vaz & Sousa, 2021).

### **Impact of the Persuasive Rationale to Anxiety Disorders**

Anxiety disorders are among the most prevalent mental disorders globally (Stein et al., 2017). Despite cognitive-behavior therapy being commonly presented as the gold standard for treating anxiety, there is no sufficient evidence to support its superiority (Wampold, 2019). The presentation of a rationale focused on the client's symptoms, which promotes a sense of hope for therapy outcomes, is suggested as an important mechanism of change and a predictor of anxiety symptom reduction (Gallagher et al., 2020; Yulish et al., 2017). Kazdin and Krouse (1983) analogue study with participants suffering from anxiety proposed that a persuasive communication of the rationale promotes positive expectations and evaluations of the treatment as potent. Two analogue studies with participants with social anxiety found consistent results (Ahmed & Westra, 2009; Ametrano et al., 2017). A cogent rationale was related to higher expectations for change, self-confidence in managing anxiety (Ametrano et al., 2017), and greater engagement with therapeutic tasks (Ahmed & Westra, 2009). Despite being presented as a priority for research (Kazdin, 2005), the psychotherapist's persuasiveness and communication of rationale remain severely underinvestigated (Craciun, 2015; Vaz & Sousa, 2021).

### **Study Goals**

Existing findings support the importance of the psychotherapist's persuasiveness to promote positive expectations, self-efficacy in managing symptoms, and engagement with therapeutic tasks, and propose a relationship between the psychotherapist's persuasiveness and the working alliance. However, the psychotherapist's persuasiveness remains underinvestigated. It is unclear what comprises the psychotherapist's persuasiveness and how it relates to the working alliance. The present study had two main aims. First, to develop a psychometrically sound rating scale that measures the psychotherapist's persuasiveness. Relevant literature on the psychotherapist's persuasiveness was researched, and the identified constructs and items were submitted to a validation process. Second, to explore the relationship between the psychotherapist's persuasiveness and the working alliance. Psychotherapy session recordings were rated using scales that measure the psychotherapist's persuasiveness and the working alliance. The corresponding ratings were analyzed for a possible correlation between the two variables. It was hypothesized that the greater the psychotherapist's persuasiveness, the greater the working alliance would be. With no prior research on the relationship between the two variables, the hypothesis was exploratory.

### **Method**

#### *Design*

To develop the scale, the subsequent steps were followed: gathering relevant literature; assembling an initial pool of constructs and items; requesting expert feedback and refining the items, accordingly; conducting a pilot study to test the items; conducting a larger study to validate the scale (DeVellis, 2017). Once the scale validation process was completed, a nonexperimental, correlational, observational study was conducted to examine the relationship between the psychotherapist's persuasiveness and the working alliance.

### *Participants*

The main study's sample included 14 psychotherapy session recordings, nine of which were single first sessions, and five were from a psychotherapeutic process. These were assembled through convenience sampling from a pool of session recordings obtained for educational purposes. As an inclusion criterion, the recordings included clients suffering from anxiety and had audio and visuals. Five psychotherapists were male (50%), and five were female (50%). Nine clients were female (90%), and one was male (10%). Five clients were suffering from an unspecified form of anxiety (50%), two from social anxiety (20%), two from panic disorder (20%), and one from generalized anxiety (10%). The type of anxiety was disclosed in the video's description, so no diagnostic measures were applied. Six psychotherapists had a cognitive-behavioral approach (60%), one accelerated experiential dynamic psychotherapy (10%), one systematic treatment selection (10%), one schema therapy (10%), and one emotion-centered problem-solving (10%). Seventeen session recordings were used to validate the scale, 14 of which belonged to the main study's sample. Three more recordings were included with no specific inclusion criteria to ensure an adequate sample size for the validation process.

### *Measures*

#### *Therapist's Persuasiveness Rating Scale (TPRS)*

The TPRS is an observer rating scale based on Jerome Frank's theorization of the psychotherapist's persuasiveness (Frank & Frank, 1993) that measures the psychotherapist's persuasiveness on a 5-point Likert-type scale (1 = Strongly uncharacteristic; 5 = Strongly characteristic). The final version of the TPRS comprises 10 items and four subscales (Preconditions; Rationale; Nonverbal behaviors; Influence) based on Vaz and Sousa (2021) proposed persuasive skills and other relevant literature. Each persuasive skill was researched, and the most salient aspects of each skill that can be observed during sessions were included. A description of each skill and behavioral indicators that varied in severity were included to facilitate the rating procedure.

The subscale, preconditions, refers to the establishment of preconditions for the cocreation of therapeutic rationale. It derives from Frank's conception that each client begins psychotherapy with explanations for their symptoms, that the psychotherapist needs to explore to provide a cogent rationale (Frank, 1986), and that emotional stimulation increases the psychotherapist's persuasive influence (Frank, 1987). The subscale, rationale, refers to the presentation of a cogent rationale. It derives from Frank's notion that the psychotherapist presents a "believable myth" that explains the client's symptoms and therapeutic actions that can help overcome those problems (Frank, 1974; Frank & Frank, 1993). The subscale, nonverbal behaviors, refers to the nonverbal charismatic behaviors with which the therapist presents the rationale. It derives from the research on the psychotherapist's behaviors that enhance the rationale's cogency (Ahmed & Westra, 2009; Ametrano et al., 2017; Kazdin & Krouse, 1983).

The subscale, influence, refers to the psycho-therapist's influence on the client. It derives from the notion that the persuasive psychotherapist promotes the client's involvement in psychotherapy and therapeutic actions (Frank, 1986).

The TPRS's subscales had satisfactory reliabilities for the sample under study, with  $\alpha = .647$  for Preconditions,  $\alpha = .884$  for Nonverbal behaviors, and  $\alpha = .728$  for Influence, except the Rationale subscale that had relatively low reliability ( $\alpha = .568$ ), which can be considered sufficient considering the TPRS is in its early stages of research (Nunnally, 1978). The raters, two master students responsible for developing the TPRS, conducted the TPRS ratings in March and April. The rater's training involved reading relevant literature on the psychotherapist's persuasiveness that the TPRS was based on and studying the scale. The training was repeated twice for two weeks, encompassing roughly 30 hr, until good interrater reliability was achieved ( $r = .833$ ). Intraclass correlation coefficients estimates, and their 95% confident intervals, were based on a mean-rating ( $k = 2$ ), absolute agreement, 2-way random-effects model (Koo & Li, 2016).

#### *Working Alliance Inventory-Observer Version- Short Form (WAI-O-S)*

The WAI-O-S (Tichenor & Hill, 1989; Tracey & Kokotovic, 1989) is an accepted measure of the working alliance (Andrusyna et al., 2001; Martin et al., 2000; Santirso et al., 2018, 2020) that was adapted from the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The WAI-O-S is an observational scale with 12 items (e.g., "There is agreement about the steps taken to help improve the client's situation" and "The client feels that the therapist appreciates him/her as a person") rated on a 7-point Likert-type scale (1 = never; 7 = always), with two reverse scored items (items 1 and 4). It is conceptually based on Bordin's (1979) pan-theoretical model of the working alliance and is comprised of three subscales (Goal, Task, and Bond) which measure the agreement of goals, accordance of tasks, and development of a bond between the client and therapist (Andrusyna et al., 2001).

The subscales of the WAI-O-S had high reliabilities for the sample under study, with  $\alpha = .906$  for Goal,  $\alpha = .903$  for Task, and  $\alpha = .892$  for Bond. The WAI-O-S coding was conducted in April and May. The rater's training involved reading relevant literature on the working alliance and studying the WAI-O-S. The training was repeated twice for 2 weeks, encompassing roughly 30 hr until good interrater reliability was achieved ( $r = .767$ ). Intraclass correlation coefficients estimates, and their 95% confident intervals, were based on a mean-rating ( $k = 2$ ), absolute agreement, 2-way random-effects model (Koo & Li, 2016). The scale's internal consistency and interrater reliability for this study's sample were comparable to previous studies' (Santirso et al., 2018, 2020).

#### *Procedure*

##### *Scale Development*

From a literature review conducted between October and December 2020; an initial draft of the TPRS was developed. The definition of the psycho-therapist's persuasiveness and proposed persuasive skills found in the literature helped establish four subscales and an initial pool of 16 items on a 7-point Likert-type scale. To enhance the content validity of the TPRS, one expert provided feedback on the relevancy, appropriateness, and clarity of the items (DeVellis, 2017). The expert was a doctoral-level student who works in academia and studies the psychotherapist's persuasiveness. Based on the expert feedback, three items were removed for redundancy reasons ("T builds credibility for therapy and therapeutic tasks by enhancing his or her expertness, trustworthiness and attractiveness", "T validates or labels C's feelings" and "T's explanations transmit a sense of hope and positive expectations for therapeutic success") and the 7-point Likert-type scale was adapted to a 5-

point Likert-type scale. The expert's suggestions did not affect the constructs retrieved from the literature. The revised TPRS was tested on a pilot study with three session recordings not included in the main study's sample. Both raters agreed to reword two items for clarity reasons (see Table 1 for the TPRS model). After this revision, the scale's validation process was conducted. An exploratory factor analysis was conducted to determine the underlying structure among the scale items, followed by confirmatory factor analysis. After an acceptable model fit was achieved, the scale validity, reliability, and sensitivity were examined.

### *Main Study*

There was a within-session assessment of the variables of interest by applying the TPRS and WAI-O-S at a microprocessual level in the 14 session recordings. The recordings (approximately 45–50 minutes in length) were divided into thirds (beginning, middle, end), and each unit was rated using the scales. After the training, the two raters rated three session recordings not included in the final sample to assess interrater reliability. The two students worked together during the rating process of the 14 sessions included in the main study. The TPRS and WAI-O-S ratings were taken under similar conditions. After rating each session individually, the two raters viewed the sessions together and discussed each rating. The session recordings were examined again separately, and some ratings were altered considering what was discussed. Each session was judged three times.

## **Results**

### Scale validation

#### *Exploratory Factor Analysis (EFA)*

EFA was performed to examine the underlying structure of the correlations among the TPRS items through principal axis factor analysis (FA) with orthogonal rotation (VARIMAX; Hair et al., 2018). Seventeen session recordings, 14 belonging to the main study's sample and three to the pilot study, were used for the analysis. There was no missing data from the dataset. Data adequacy was assessed through the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser & Rice, 1974), which indicated good adequacy (KMO = .81) (Marôco, 2021a). It was further substantiated by Bartlett's test of sphericity assuming a significant value ( $\chi^2[78] = 341.08, p, .001$ ) and the Measure of Sampling Adequacy (MSA) for each item being above the .50 threshold (Hair et al., 2018). Item 12 was below the threshold (MSA = .49), but it was not removed due to its closeness to the cutting point and was reevaluated in the following stages.

The number of retaining factors was determined using the Kaiser criterion (.1 eigenvalue), with an auxiliary interpretation of the scree plot and the extracted variance (Hair et al., 2018). Even though the scree plot was ambiguous, showing inflections that justified including four and six factors, only three factors had eigenvalues over 1 with 57.2% of explained variance. These criteria supported a 3-factor solution with 57.2% of variance explained. Table 2 summarizes the factor loadings after rotation. The items on factor 1 suggest that it represents emotional expressiveness, factor 2 represents the rationale for therapeutic actions, and factor 3 represents the client's interest in the rationale. The 3-factor solution deviated from the structure retrieved from the literature review. Items 1, 6, and 8 showed moderate cross-loadings into other factors (.30; Salminen et al., 2020). It was opted not to remove these items and reevaluate them in the CFA stage. Item 2's factorial loading was below .50, being a candidate for removal (Hair et al., 2018). A new EFA was conducted without item 2. Due to the lack of changes in the new EFA and item 2's factor loading

being close to .50, it was opted not to remove the item and reevaluate it in the CFA stage. Cronbach's alpha was calculated for each factor to assess scale reliability. Factors 1 and 3 had relatively high reliability, but factor 2's reliability was relatively low (see Table 2).

### *Confirmatory Factor Analysis (CFA)*

CFA was conducted to test the predefined structure of the TPRS using IBM AMOS 27 Graphic and Maximum Likelihood (ML) estimation (Marôco, 2021b). It was opted to test the structure retrieved from the literature, due to the differences between the structure obtained in the EFA and the initial theoretical structure. The  $\chi^2$  statistic, the  $\chi^2/df$  index, the Comparative Fit Index (CFI) and its Parsimony Adjusted variant (PCFI), the Root Mean Squared Error Approximation (RMSEA), the Akaike Information Criterion (AIC), and the Browne-Cudeck Criterion (BCC) indices were used to assess model fit (Horta & Santos, 2016; Marôco, 2021b). Each item's factorial weights were analyzed to verify if they were above the threshold of .50. The model revealed an inadequate fit ( $\chi^2[60] = 147.25$ ;  $p < .001$ ,  $\chi^2/df = 2.45$ , CFI = .79, PCFI = .61, RMSEA = .17) and three items (item 2, 6, and 13) had factorial weights below the .50 threshold (Marôco, 2021b). Those items were removed, and the respecified model was analyzed. The respecified model's items had factorial weights above .50 and there were considerable improvements to model fit ( $\chi^2[29] = 42.99$ ;  $p = .046$ ,  $\chi^2/df = 1.48$ , CFI = .96, PCFI = .62, RMSEA = .098) also noted by the decrease on the comparative indices (AICold = 235.25 vs. AICnew = 94.99, BCCold = 269.47 vs. BCCnew = 109.66). The new respecified model revealed a good fit and was adopted (Marôco, 2021a). The final model is summarized in Figure 1, and the factorial weights are presented in Table 3.

### *Validity, Reliability, and Sensitivity*

The Validity Master Macro in James Gaskin's (2019) Stats Tool Package was used to assess the scale's validity and reliability. Factorial, convergent, and divergent validity were analyzed to assess scale validity (Hair et al., 2018; Marôco, 2021a). Factorial validity is evaluated by all the item's factorial weights exceeding the .50 threshold (Marôco, 2021a), which was ensured in the CFA stage, supporting the scale's factorial validity. Convergent validity is assessed through the Average Variance Extracted (AVE; Fornell & Larcker, 1981) exceeding the .50 threshold, which was met, supporting the scale's convergent validity (Hair et al., 2018). Discriminant validity requires two criteria: the AVE for a pair of factors being equal or greater than the squared correlations between those two factors, and the AVE being equal or greater than maximum shared variance (MSV) and average shared variance (ASV; Fornell & Larcker, 1981). These criteria were not met, as the AVE for the factors rationale, preconditions, and non-verbal behaviors were less than one absolute value of the squared correlation with other factors, and the AVE for rationale, preconditions, and nonverbal behaviors were less than the MSV. These results mean that the scale could be used as a unidimensional instrument. A unidimensional model of the TPRS was tested using CFA, but the indices did not differ significantly from the final respecified model ( $\chi^2[31] = 45.28$ ;  $p = .047$ ,  $\chi^2/df = 1.46$ , CFI = .96, PCFI = .66, RMSEA = .096, AIC = 93.28, BCC = 106.82). It was opted not to adopt the unidimensional model of the TPRS. The repercussions of the discriminant validity issues are presented in the discussion section. The scale's reliability is assessed through the composite reliability (CR; Fornell & Larcker, 1981; Marôco, 2021a) of all factors exceeding the .70 threshold, which was met (see Table 4), supporting the instrument's reliability (Marôco, 2021a). The scale's sensitivity is assessed by verifying the item's normal distribution through the item's skewness and kurtosis being below the absolute value of 3, which was met (see Table 3), supporting the scale's sensitivity (Kline, 2016).

### *Main study*

The Shapiro-Wilk test was performed on the TPRS and WAI-O-S ratings to examine if the distribution of ratings was approximately normal. The TPRS ratings in the middle ( $W[10] = .96$ ,  $p = .769$ ) and end of the session ( $W[10] = .92$ ,  $p = .365$ ), did not deviate significantly from normal. The WAI-O-S ratings in the beginning ( $W[10] = .92$ ,  $p = .35$ ) and end of the session ( $W[10] = .94$ ,  $p = .575$ ), did not deviate significantly from normal. However, the TPRS ratings in the beginning ( $W[10] = .81$ ,  $p = .02$ ) and the WAI-O-S ratings in the middle ( $W[10] = .83$ ,  $p = .031$ ), were both significantly non-normal. The normality assumption was violated, so nonparametric tests were used. A Spearman's correlation coefficient was computed to assess the relationship between the TPRS and the WAI-O-S ratings. The correlation between the two variables at the beginning ( $r = .08$ ,  $n = 10$ ,  $p = .823$ ), middle ( $r = .29$ ,  $n = 10$ ,  $p = .409$ ), and end ( $r = .06$ ,  $n = 10$ ,  $p = .88$ ) of the session was not statistically significant. The relationship between the TPRS ratings at the beginning, middle, and end of the session was assessed using Spearman's correlation coefficient to explore the psychotherapist's persuasiveness variable. There was a positive correlation between the TPRS ratings at the beginning and middle ( $r = .799$ ,  $n = 10$ ,  $p = .006$ ), at the beginning and end ( $r = .77$ ,  $n = 10$ ,  $p = .010$ ), and at the middle and end ( $r = .81$ ,  $n = 10$ ,  $p = .004$ ). The process was repeated for the WAI-O-S ratings. The correlations between the WAI-O-S ratings at the beginning and middle ( $r = .435$ ,  $n = 12$ ,  $p = .157$ ), beginning and end ( $r = .07$ ,  $n = 12$ ,  $p = .833$ ), and middle and end ( $r = .57$ ,  $n = 12$ ,  $p = .055$ ) were not statistically significant. The TPRS and the WAI-O-S ratings do not appear to be correlated. The WAI-O-S ratings at the beginning, middle, and end of the session also do not appear to correlate.

However, there was a strong positive correlation between the TPRS ratings at the session's beginning, middle and end. Increases in the TPRS ratings at the beginning of the session were correlated with increases in TPRS ratings at the middle and end of the session. A Friedman's ANOVA was computed to assess the significance of the differences in the TPRS and WAI-O-S ratings throughout the session. The TPRS ratings significantly changed over the three moments ( $\chi^2 F[2] = 9.135$ ,  $p = .010$ ,  $n = 10$ ). The pairwise comparisons were analyzed to follow up on this finding. The TPRS ratings significantly changed from the beginning to the middle ( $Z = 2.460$ ,  $p = .014$ ) and end ( $Z = 2.571$ ,  $p = .010$ ), but did not significantly change from the middle to the end ( $Z = .112$ ,  $p = .911$ ). There was a significant change in the TPRS ratings from the beginning to the middle and end, but there was no significant change between the middle and the end. The WAI-O-S ratings significantly changed over the three moments ( $\chi^2 F[2] = 24.000$ ,  $p = .001$ ,  $n = 12$ ). The pairwise comparisons were analyzed to follow up on this finding. The WAI-O-S ratings significantly changed from the beginning to the middle ( $Z = 2.449$ ,  $p = .014$ ) and end ( $Z = 4.889$ ,  $p = .001$ ), and from the middle to the end ( $Z = 2.449$ ,  $p = .014$ ). There was a significant change in the WAI-O-S from the beginning to the middle and end, and from the middle to the end.

A linear regression model was computed to assess the effect of the TPRS ratings on the WAI-O-S ratings. First, the TPRS ratings' effect at the beginning, middle, and end on the WAI-O-S ratings at the beginning of the session was tested. This model is statistically significant ( $F[3] = 6.61$ ,  $p = .025$ ) with an  $R^2 = .651$ , which means that the TPRS ratings at the beginning, middle and end explain 65.1% of the variance of the WAI-O-S ratings at the beginning of the session. To assess which moment had more impact in the WAI-O-S ratings, the model's coefficients were analyzed. Only the TPRS ratings at the beginning ( $B = 1.615$ ,  $p = .011$ ), significantly affected the WAI-O-S ratings. It appears that the TPRS ratings at the beginning had the largest effect on the WAI-O-S ratings at the beginning of the session. The process was repeated for the TPRS ratings' effect on the WAI-O-S ratings at the middle and end. The TPRS ratings at the beginning, middle and end did not have a statistically significant effect on the WAI-O-S at the middle ( $F[3] = 1.44$ ,  $p = .322$ ), and end ( $F[3] = .59$ ,  $p = .647$ ).



## Discussion

The purpose of the present study was to explore the psychotherapist's persuasiveness by developing a rating scale that measured the psychotherapist's persuasive skills and analyzing the relationship between the psychotherapist's persuasiveness and the working alliance. The final version of the Therapist's Persuasiveness Rating Scale (TPRS) contains 10 items with four subscales. Except for the scale's discriminant validity, which showed to be inadequate, the TPRS has good psychometric properties and can be used to measure the psychotherapist's persuasiveness in session. The structure initially retrieved from the literature review was not supported by the exploratory factor analysis, which proposed a structure heavily supported by the psychotherapist's emotional expressiveness, supporting the importance of charismatic behaviors and emotional stimulation in the psychotherapist's persuasiveness (Frank, 1987). Although the hypothesized positive correlational relationship between the psychotherapist's persuasiveness and the working alliance was not supported, the psychotherapist's persuasiveness appears to explain 65.1% of the working alliance at the beginning of the session, which suggests that the small sample size might have prevented a significant correlation between the two variables. An exploratory analysis of the correlation of the psychotherapist's persuasiveness and the working alliance throughout the session also showed that while the psychotherapist's persuasiveness ratings are correlated, the working alliance ratings are not. This finding supports previous studies that suggest the therapist's interpersonal skills are preexisting in some way (Anderson, Crowley, et al., 2016; Perlman et al., 2020).

The present study followed the steps considered best practice for scale development and evaluation (Boateng et al., 2018) and introduced the first validated scale that solely measures the psychotherapist's persuasiveness. It is based on Jerome Frank's theorizations of the psychotherapist's persuasiveness (Frank & Frank, 1993) and Vaz & Sousa, (2021) proposed persuasive skills. Incorporating charismatic behaviors proposed to be more persuasive (Heide, 2013), and the client's engagement spurred by the therapist's rationale (Vaz & Sousa, 2021) provides an in-depth estimation of the psychotherapist's persuasiveness that can advance the research on this interpersonal skill. Initially, the 13 items and four-factor structure retrieved from the literature revealed an inadequate fit, and three items were removed. The item's removal left three factors with only two items, which is below the three items per factor recommendation (Hair et al., 2018). However, it is important to note that there are validated scales with only two items per construct (Rammstedt & John, 2007), and the item's removal was essential to the scale's improvement of fit and factorial validity. The presenting results also support the scale's reliability and sensitivity. The criteria to assure the scale's discriminant validity were not met, which means that the items are similar and the distinction between each factor is unclear, limiting the interpretation of findings related to the relationship between latent constructs (Farrell, 2010). This validity issue could not be resolved at this stage since it required revising the item's semantic formulation.

Despite not being the final structure adopted for the TPRS, the exploratory factor analysis yielded a deeper understanding of the psychotherapist's persuasiveness. Factor's 1 items highlight the importance of the psychotherapist's emotional expressiveness through charismatic verbal and nonverbal behaviors and the client's emotional stimulation to the psychotherapist's persuasiveness. These results support Frank's (1986, 1987) theoretical supposition that the psychotherapist's ability to stimulate emotions is integral to their persuasiveness and capacity to transform maladaptive meanings. A similar interaction was found in Vaz and Sousa (2021) study, which suggests that the psychotherapist's interpersonal skills positively predict the client's emotional stimulation and transformation of meanings. Recent research has proposed that the client's emotional stimulation and experience during sessions is an important variable for psychotherapy outcomes (Pasc-

ual-Leone & Yeryomenko, 2017), through which the psychotherapist's interpersonal skills might mediate part of their effects on outcomes (Vaz & Sousa, 2021). It seems plausible that the psychotherapist's emotional expressiveness and stimulation of the client's emotions constitute essential qualities that make up the psychotherapist's persuasiveness, through which the psychotherapist might persuade clients to transform maladaptive meanings.

The items that measure the psychotherapist's verbal and nonverbal behaviors are highly loaded to factor 1, which suggests that charismatic verbal behaviors contribute to the overall psychotherapist's expressiveness and are an integral element of the psychotherapist's persuasiveness. These results support findings of the verbal and nonverbal expressiveness having an impact on the psychotherapist's perceived likeability (Friedman et al., 1988), empathy (Maurer & Tindall, 1983), and credibility (Hoyt, 1996), which are thought to enhance the psychotherapist's persuasive ability (Otterson, 2015). The items referring to the psychotherapist's validation and cogent explanation of the client's problems are also highly loaded to factor 1, alongside items that measure the therapist's charismatic behaviors and stimulation of the client's emotions. This is congruent with research that suggests that the psychotherapist's validation and understanding of the client's problems relate to the client's emotional stimulation and processing (Asano, 2019; Malin & Pos, 2015). Contrary to Vaz and Sousa (2021) results that suggest the treatment rationale hinders the client's emotional stimulation, the present study's findings suggest that the treatment rationale is related to the psychotherapist's expressiveness and client's emotional stimulation, as item 5 is highly loaded to factor 1. The association between the treatment rationale and the psychotherapist's verbal and nonverbal behaviors is further substantiated by a series of analogue studies that suggest that communicating the treatment rationale with certain verbal and nonverbal behaviors is more persuasive in enhancing the client's expectations and engagement (Ahmed & Westra, 2009; Ametrano et al., 2017; Kazdin & Krouse, 1983).

Concerning the analysis of the relationship between the psychotherapist's persuasiveness and the working alliance, Spearman's correlation coefficient results point to a nonsignificant statistical correlation between the two variables. This result does not support the positive correlation hypothesized based on the theoretical assumptions of the importance of psychotherapist's persuasiveness when presenting a treatment rationale to establishing a collaborative relationship and emotional bond (Safran & Segal, 1990). It is also not aligned with Anderson, Crowley, et al. (2016) findings that therapists with higher facilitative interpersonal skills have higher working alliance ratings that continuously increase throughout the therapeutic process. An important finding of this study is the 65.1% of the variance of the working alliance at the beginning of the session explained by the psychotherapist's persuasiveness at the beginning of the session. This result is somewhat contradictory to the nonsignificant correlational relationship between the two variables and suggests an effect between the psychotherapist's persuasiveness and the working alliance. A possible interpretation for these results is that the present study's small sample size might have prevented the detection of a statistically significant correlation between the psychotherapist's persuasiveness and the working alliance (Hackshaw, 2008). The high percentage of the variance of the working alliance explained by the psychotherapist's persuasiveness raises the question of whether the psychotherapist's persuasiveness might facilitate the establishment of the working alliance. This would be in accordance with reviews that highlight that the establishment of the working alliance is facilitated by the psychotherapist's charismatic behaviors, exploration of the client's beliefs, and the validation of the client's problems, followed by a rationale of the treatment and symptoms (Hilsenroth & Cromer, 2007; Zimmermann & Haes, 2011), which are integral elements to the psychotherapist's persuasiveness (Frank & Frank, 1993) that are evaluated in the TPRS.

The exploratory analysis of the correlation between the psychotherapist's persuasiveness and the working alliance ratings in the three session's moments yielded a deeper understanding of the two variables. While the psychotherapist's persuasiveness ratings correlated in the three moments of the session, the working alliance ratings did not correlate. The analysis of the differences in the psychotherapist's persuasiveness and working alliance ratings throughout the session also showed that how the ratings varied throughout the session differed between the two variables. While the psychotherapist's persuasiveness ratings rose from the beginning to the middle and stabilized between the middle and end of the session, the working alliance ratings increased gradually throughout the session. It seems reasonable to infer that the psychotherapist's persuasiveness is significantly higher in the middle and end of the session compared to the beginning of the session because it is usually when the psychotherapist becomes more participative and provides a rationale for the client's problems and suggests therapeutic tasks to the client (Zimmermann & Haes, 2011). The correlation of the psychotherapist's persuasiveness ratings throughout the three moments of the session and the stabilization of the psychotherapist's persuasiveness ratings between the middle and end of the session are also suggestive of it being an intrinsic quality of the psychotherapist. This would support previous studies suggesting that the psychotherapist's interpersonal skills might have a trait-like element (Anderson, Crowley, et al., 2016; Perlman et al., 2020).

This study has several strengths. It is the first attempt to develop and validate a rating scale that solely measures the psychotherapist's persuasiveness, which is crucial to advance its study as an independent interpersonal skill. It is also the first attempt at examining the relationship between the psychotherapist's persuasiveness and the working alliance. Finally, this study resorted to observer coding to reduce self-assessment bias as psychotherapists have been suggested to be biased when rating their abilities (Walfish et al., 2012). This study also has limitations that need to be warranted. The small sample size warrants caution in interpreting the results as it might have inhibited statistical significance (Hackshaw, 2008). The discriminant validity issues and low internal consistency of the rationale subscale also warrant caution when interpreting results (Farrell, 2010; Tavakol & Dennick, 2011). The study's design impedes drawing causal inferences about the relationship between the psychotherapist's persuasiveness and the working alliance (Cooper, 2020). The sample is comprised mostly of psychotherapists with a cognitive-behavioral approach, which have been suggested to provide more rationales than other approaches (Vaz & Sousa, 2021). A more varied clinical sample might produce differing results. Lastly, the session recordings included in the sample emphasized showing treatment rationale and tasks of theoretical approaches because of their educational purpose, meaning that recordings retrieved from a natural setting might have yielded different results.

More research is needed to continue the TPRS's validation process and investigation of the psychotherapist's persuasiveness. Despite having reached sampling adequacy, future studies should enhance their sample size and utilize different techniques to measure discriminant validity to surpass the insufficient discriminant validity. If the discriminant validity issues persist, future studies should consider evaluating a unidimensional version of the TPRS (Farrell, 2010). Future studies should examine the psychotherapist's persuasiveness with a varied pool of psychotherapeutic approaches in natural settings. Future research should also seek to understand how the psychotherapist's persuasiveness acts in the sessions and how it relates to the working alliance by combining quantitative and qualitative designs—performing a task analysis would allow investigating the processes involved in the psychotherapist's persuasiveness and how they relate to the construction of the working alliance (Pascual-Leone et al., 2009). The present study's findings also raise the following questions that should be investigated: What is the importance of the client's emotional stimulation to the effect exerted by the psychotherapist's persuasiveness? What is the psy-

chotherapist's persuasiveness part in the establishment of the working alliance? How does the psychotherapist's persuasiveness evolve throughout the session?

## Conclusion

The present study's findings suggest that the TPRS has good psychometric qualities, except for discriminant validity, being a promising tool to advance the psychotherapist's persuasiveness study. The exploratory factor analysis results give support to Frank's (Frank & Frank, 1993) conceptualization of the psychotherapist's persuasiveness by highlighting the importance of the psychotherapist's verbal and nonverbal behaviors when communicating the treatment rationale and validating the client's experience to stimulate the client's emotions, as essential elements to the psychotherapist's persuasiveness. The hypothesized positive correlative relationship between the psychotherapist's persuasiveness and the working alliance was not supported as results pointed toward a nonsignificant relationship between the variables. It is important to note that the small sample size might have contributed to the lack of significance since the psychotherapist's persuasiveness explains 65.1% of the variance of the working alliance at the beginning of the session. Finally, the psychotherapist's ratings were correlated between the session's beginning, middle, and end, suggesting that the psychotherapist's persuasiveness might have an inherent quality.

## References

Ahmed, M., & Westra, H. A. (2009). Impact of a treatment rationale on expectancy and engagement in cognitive behavioral therapy for social anxiety.

*Cognitive Therapy and Research*, 33(3), 314–322. <https://doi.org/10.1007/s10608-008-9182-1>

Ametrano, R. M., Constantino, M. J., & Nalven, T. (2017). The influence of expectancy persuasion techniques on socially anxious analogue patients' treatment beliefs and therapeutic actions. *International Journal of Cognitive Therapy*, 10(3), 187–205. <https://doi.org/10.1521/ijct.2017.10.3.187>  
Anderson, T., Crowley, M. E. J., Himawan, L.,

Holmberg, J. K., & Uhlin, B. D. (2016). Therapist facilitative interpersonal skills and training status: A randomized clinical trial on alliance and outcome. *Psychotherapy Research*, 26(5), 511–529. <https://doi.org/10.1080/10503307.2015.1049671>

Anderson, T., Finkelstein, J. D., & Horvath, S. A. (2020). The facilitative interpersonal skills method: Difficult psychotherapy moments and appropriate therapist responsiveness. *Counselling & Psychotherapy Research*, 20(3), 463–469. <https://doi.org/10.1002/capr.12302>

Anderson, T., McClintock, A. S., Himawan, L., Song, X., & Patterson, C. L. (2016). A prospective study of therapist facilitative interpersonal skills as a predictor of treatment outcome. *Journal of Consulting and Clinical Psychology*, 84(1), 57–66. <https://doi.org/10.1037/ccp0000060>

Anderson, T., Perlman, M. R., McCarrick, S. M., & McClintock, A. S. (2019). Modeling therapist responses with structured practice enhances facilitative

tative interpersonal skills. *Journal of Clinical Psychology*, 76(4), 659–675. <https://doi.org/10.1002/jclp.22911>

Anderson, T., & Patterson, C. (2013). Facilitative interpersonal skill task and rating method. Ohio University. Unpublished rating manual.

Andrusyna, T. P., Tang, T. Z., DeRubeis, R. J., & Luborsky, L. (2001). The factor structure of the working alliance inventory in cognitive-behavioral therapy. *The Journal of Psychotherapy Practice and Research*, 10(3), 173–178. <https://pubmed.ncbi.nlm.nih.gov/11402080/>

Asano, K. (2019). Emotion processing and the role of compassion in psychotherapy from the perspective of multiple selves and the compassionate self. *Case Reports in Psychiatry*, 2019, 7214752. <https://doi.org/10.1155/2019/7214752>

Benish, S. G., Quintana, S., & Wampold, B. E. (2011). Culturally adapted psychotherapy and the legitimacy of myth: A direct-comparison meta-analysis. *Journal of Counseling Psychology*, 58(3), 279–289. <https://doi.org/10.1037/a0023626> Boateng, G. O., Neilands, T. B., Frongillo, E. A.,

Melgar-Quinonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research. *Frontiers in Public Health*, 6, 149–118. <https://doi.org/10.3389/fpubh.2018.00149>

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research, & Practice*, 16(3), 252–260. <https://doi.org/10.1037/h0085885>

Constantino, M. J., Višl'a, A., Coyne, A. E., &

Boswell, J. F. (2018). A meta-analysis of the association between patients' early treatment outcome expectation and their posttreatment outcomes. *Psychotherapy*, 55(4), 473–485. <https://doi.org/10.1037/pst0000169>

Cooper, H. (2020). Reporting quantitative research in psychology: How to meet APA style journal article reporting standards (3rd ed.) American Psychological Association. <https://doi.org/10.1037/0000178-00010987654321>

Crăciun, B. (2015). Persuasion in psychotherapy.

*Romanian Journal of Experimental Applied Psychology*, 6(1), 1–5. <http://www.rjeap.ro/issue-1-2015/rjeap/volume-6-issue-1-2015/1-editorial-persuasion-in-psychotherapy-barbara-craciun>

DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed). Sage.

Farrell, A. M. (2010). Insufficient discriminant validity: A comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research*, 63(3), 324–327. <https://doi.org/10.1016/j.jbusres.2009.05.003>

Flückiger, C., Re, A. C. D., Wampold, B. E., & Horvath, A. O. (2019). Alliance in adult psychotherapy. In J. C. Norcross & M. J. Lambert (Eds.), *Psychotherapy relationships that work* (3rd ed., Vol. 1, pp. 24–78). Oxford University Press. <https://doi.org/10.1093/med-psych/9780190843953.003.0002>

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>

002224378101800104

- Frank, J. D. (1974). Psychotherapy: The restoration of morale. *The American Journal of Psychiatry*, 131(3), 271–274. <https://doi.org/10.1176/ajp.131.3.271>
- Frank, J. D. (1986). Psychotherapy—the transformation of meanings: Discussion paper. *Journal of the Royal Society of Medicine*, 79(6), 341–346. <https://doi.org/10.1177/014107688607900611>
- Frank, J. D. (1987). Psychotherapy, rhetoric, and hermeneutics: Implications for practice and research. *Psychotherapy: Theory, Research, & Practice*, 24(3), 293–302. <https://doi.org/10.1037/h0085719>
- Frank, J. D., & Frank, J. B. (1993). *Persuasion and healing: A comparative study of psychotherapy*. JHU Press.
- Friedman, H. S., Riggio, R. E., & Casella, D. F. (1988). Nonverbal skill, personal charisma, and initial attraction. *Personality and Social Psychology Bulletin*, 14(1), 203–211. <https://doi.org/10.1177/0146167288141020>
- Gallagher, M. W., Long, L. J., Richardson, A., D’Souza, J., Boswell, J. F., Farchione, T. J., & Barlow, D. H. (2020). Examining hope as a transdiagnostic mechanism of change across anxiety disorders and CBT treatment protocols. *Behavior Therapy*, 51(1), 190–202. <https://doi.org/10.1016/j.beth.2019.06.001>
- Gaskin, J. (2019). *Validity master: Stats tool package* [Computer software]. [http://statwiki.gaskination.com/index.php?title=Main\\_Page](http://statwiki.gaskination.com/index.php?title=Main_Page)
- Hackshaw, A. (2008). Small studies: Strengths and limitations. *The European Respiratory Journal*, 32(5), 1141–1143. <https://doi.org/10.1183/09031936.00136408>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate data analysis* (8th ed.). Cengage.
- Heide, F. J. (2013). “Easy to sense but hard to define”: Charismatic nonverbal communication and the psychotherapist. *Journal of Psychotherapy Integration*, 23(3), 305–319. <https://doi.org/10.1037/a0032481>
- Heinonen, E., & Nissen-Lie, H. A. (2020). The professional and personal characteristics of effective psychotherapists: A systematic review. *Psychotherapy Research*, 30(4), 417–432. <https://doi.org/10.1080/10503307.2019.1620366>
- Hilsenroth, M. J., & Cromer, T. D. (2007). Clinician interventions related to alliance during the initial interview and psychological assessment. *Psychotherapy: Theory, Research, & Practice*, 44(2), 205–218. <https://doi.org/10.1037/0033-3204.44.2.205>
- Horta, H., & Santos, J. M. (2016). An instrument to measure individuals’ research agenda setting: The multi-dimensional research agendas inventory. *Scientometrics*, 108(3), 1243–1265. <https://doi.org/10.1007/s11192-016-2012-4>
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the working alliance inventory. *Journal of Counseling Psychology*, 36(2), 223–233. <https://doi.org/10.1037/0022-0167.36.2.223>
- Horvath, P. (1990). Treatment expectancy as a function of the amount of information presented in therapeutic rationales. *Journal of Clinical Psychology*, 46(5), 636–642. [https://doi.org/10.1002/1097-4679\(199009\)46:5:636::AID-JCLP2270460516.3.0.CO;2-U](https://doi.org/10.1002/1097-4679(199009)46:5:636::AID-JCLP2270460516.3.0.CO;2-U)

Hoyt, W. T. (1996). Antecedents and effects of perceived therapist credibility: A meta-analysis. *Journal of Counseling Psychology*, 43(4), 430–447. <https://doi.org/10.1037/0022-0167.43.4.430> Illardi, S. S., & Craighead, W. E. (1994).

The role of nonspecific factors in cognitive-behavior therapy for depression. *Clinical Psychology: Science and Practice*, 1(2), 138–156. <https://doi.org/10.1111/j.1468-2850.1994.tb00016.x>

Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark

IV. *Educational and Psychological Measurement*, 34(1), 111–117. <https://doi.org/10.1177/001316447403400115>

Kazdin, A. E. (2005). Treatment outcomes, common factors, and continued neglect of mechanisms of change. *Clinical Psychology: Science and Practice*, 12(2), 184–188. <https://doi.org/10.1093/clip sy.bpi023>

Kazdin, A. E., & Krouse, R. (1983). The impact of variations in treatment rationales on expectancies for therapeutic change. *Behavior Therapy*, 14(5), 657–671. [https://doi.org/10.1016/S0005-7894\(83\)80058-6](https://doi.org/10.1016/S0005-7894(83)80058-6)

Kline, R. B. (2016). *Principles and practice of structural equation modelling* (4th ed.). Guilford Press.

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, 15(2), 155–163. <https://doi.org/10.1016/j.jcm.2016.02.012>

Malin, A. J., & Pos, A. E. (2015). The impact of early empathy on alliance building, emotional processing, and outcome during experiential treatment of depression. *Psychotherapy Research*, 25(4), 445–459. <https://doi.org/10.1080/10503307.2014.901572>

Marôco, J. (2021a). *Análise estatística com o SPSS statistics [Statistical analysis with SPSS statistics]* (8th ed.). Pêro Pinheiro.

Marôco, J. (2021b). *Análise de equações estruturais: fundamentos teóricos, software e aplicações [Structural equation analysis: Theoretical foundations, software and applications]* (3rd ed.). Pêro Pinheiro.

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68(3), 438–450. <https://doi.org/10.1037/0022-006X.68.3.438>

Maurer, R. E., & Tindall, J. H. (1983). Effect of postural congruence on client's perception of counselor empathy. *Journal of Counseling Psychology*, 30(2), 158–163. <https://doi.org/10.1037/0022-0167.30.2.158>

Neumann, R., & Strack, F. (2000). "Mood contagion": The automatic transfer of mood between persons.

*Journal of Personality and Social Psychology*, 79(2), 211–223. <https://doi.org/10.1037/0022-3514.79.2.211>

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill, Inc.

Otterson, B. (2015). *Therapist charisma and its impact: A phenomenological study* (Publication No. 3735209) [Doctoral dissertation, Alliant International University]. ProQuest Dissertations & Theses Global.

Packwood, W. T., & Parker, C. A. (1973). A method for rating counselor social reinforcement and persuasion. *Journal of Counseling Psychology*, 20(1), 38–43. <https://doi.org/10.1037/h0034045>

Pascual-Leone, A., Greenberg, L. S., & Pascual-

Leone, J. (2009). Developments in task analysis: New methods to study change. *Psychotherapy Research*, 19(4-5), 527–542. <https://doi.org/10.1080/10503300902897797>

Pascual-Leone, A., & Yeryomenko, N. (2017). The client “experiencing” scale as a predictor of treatment outcomes: A meta-analysis on psychotherapy process. *Psychotherapy Research*, 27(6), 653–665. <https://doi.org/10.1080/10503307.2016.1152409>

Perlman, M. R., Anderson, T., Foley, V. K., Mimnaugh, S., & Safran, J. D. (2020). The impact of alliance-focused and facilitative interpersonal relationship training on therapist skills: An RCT of brief training. *Psychotherapy Research*, 30(7), 871–884. <https://doi.org/10.1080/10503307.2020.1722862>

Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item version of the big five inventory in English and German. *Journal of Research in Personality*, 41(1), 203–212. <https://doi.org/10.1016/j.jrp.2006.02.00>

Safran, J. D., Muran, J. C., & Eubanks-Carter, C. (2011). Repairing alliance ruptures. *Psychotherapy*, 48(1), 80–87. <https://doi.org/10.1037/a0022140>

Safran, J., & Segal, Z. V. (1990). *Interpersonal process in cognitive therapy*. Jason Aronson.

Salminen, J., Santos, J. M., Kwak, H., An, J., Jung, S., & Jansen, B. J. (2020). Persona perception scale: Development and exploratory validation of an instrument for evaluating individual’s perceptions of personas. *International Journal of Human-Computer Studies*, 141, 102437. <https://doi.org/10.1016/j.ijhcs.2020.102437>

Santirso, F. A., Lila, M., & Garcia, E. (2020). Motivational strategies, working alliance, and protherapeutic behaviors in batterer intervention programs: A randomized controlled trial. *The European Journal of Applied to Legal Context*, 12(2), 77–84. <https://doi.org/10.5093/ejpalc2020a7>

Santirso, F. A., Martín-Fernández, M., Lila, M., Gracia, E., & Terreros, E. (2018). Validation of the Working Alliance Inventory-Observer Short Version with male intimate partner violence offenders.

*International Journal of Clinical and Health Psychology*, 18(2), 152–161.

<https://doi.org/10.1016/j.ijchp.2018.02.003>

Schöttke, H., Flückiger, C., Goldberg, S. B., Eversmann, J., & Lange, J. (2017). Predicting psychotherapy outcome based on therapist interpersonal skills: A five-year longitudinal study of a therapist assessment protocol. *Psychotherapy Research*, 27(6), 642–652. <https://doi.org/10.1080/10503307.2015.1125546>

Stein, D. J., Scott, K. M., de Jonge, P., & Kessler, R. C. (2017). Epidemiology of anxiety disorders: From surveys to nosology and back. *Dialogues in Clinical Neuroscience*, 19(2), 127–136.

<https://doi.org/10.31887/DCNS.2017.19.2/dstein>

Strong, S. R. (1968). Counseling: An interpersonal influence process. *Journal of Counseling Psychology*, 15(3), 215–224. <https://doi.org/10.1037/h0020229>

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach’s alpha. *Int J Med Educ*, 2(2), 53–55. <https://doi.org/10.5116/ijme.4dfb.8dfd>



- Tichenor, V., & Hill, C. E. (1989). A comparison of six measures of working alliance. *Psychotherapy: Theory, Research, & Practice*, 26(2), 195–199. <https://doi.org/10.1037/h0085419>
- Tracey, T. J., & Kokotovic, A. M. (1989). Factor structure of the working alliance inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 1(3), 207–210. <https://doi.org/10.1037/1040-3590.1.3.207>
- Truax, C. B., Fine, H., Moravec, J., & Millis, W. (1968). Effects of therapist persuasive potency in individual psychotherapy. *Journal of Clinical Psychology*, 24(3), 359–362. [https://doi.org/10.1002/1097-4679\(196807\)24:3:359::AID-JCLP2270240325.3.0.CO;2-O](https://doi.org/10.1002/1097-4679(196807)24:3:359::AID-JCLP2270240325.3.0.CO;2-O)
- Truax, C. B., & Lister, J. L. (1970). Effects of therapist persuasive potency in group psychotherapy. *Journal of Clinical Psychology*, 26(3), 396–397. [https://doi.org/10.1002/1097-4679\(197007\)26:3:396::AID-JCLP2270260342.3.0.CO;2-T](https://doi.org/10.1002/1097-4679(197007)26:3:396::AID-JCLP2270260342.3.0.CO;2-T)
- Vaz, A., & Sousa, D. (2021). Persuasiveness: An underappreciated characteristic of effective therapists. *Psychology of Consciousness: Theory, Research, and Practice*. Advance online publication. <https://doi.org/10.1037/cns0000309>
- Walfish, S., McAlister, B., O'Donnell, P., & Lambert, M. J. (2012). An investigation of self-assessment bias in mental health providers. *Psychological Reports*, 110(2), 639–644. <https://doi.org/10.2466/02.07.17.PRO.110.2.639-644>
- Wampold, B. E. (2012). Humanism as a common factor in psychotherapy. *Psychotherapy*, 49(4), 445–449. <https://doi.org/10.1037/a0027113>
- Wampold, B. E. (2019). *The basics of psychotherapy* (2nd ed.). American Psychological Association. <https://doi.org/10.1037/0000117-000>
- Wampold, B. E., & Imel, Z. E. (2015). *The great psychotherapy debate: The evidence for what makes psychotherapy work* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203582015>
- Yulish, N. E., Goldberg, S. B., Frost, N. D., Abbas, M., Oleen-Junk, N. A., Kring, M., Chin, M. Y., Raines, C. R., Soma, C. S., & Wampold, B. E. (2017). The importance of problem-focused treatments: A meta-analysis of anxiety treatments. *Psychotherapy*, 54(4), 321–338. <https://doi.org/10.1037/pst0000144>
- Zimmermann, C., & Haes, H. D. (2011). Building the working alliance in brief psychotherapies. In M. Rimondini (Ed.), *Communication in cognitive behavioral therapy* (pp. 53–71). Springer. [https://doi.org/10.1007/978-1-4419-6807-4\\_3](https://doi.org/10.1007/978-1-4419-6807-4_3)