

Abstract

Objective: This study was conducted to determine the role of therapeutic alliance and attachment styles in the prediction of treatment drop-out.

Method: A descriptive-correlational method was used for the conduct of this study. A total of 234 men with substance abuse presenting to the clinics and treatment centers of Tehran were selected through purposive sampling. In case of the enjoyment of the inclusion criteria, these subjects were interviewed and filled out the research instruments, including Working Alliance Inventory/Short (WAI-S) and Adult Attachment Inventory. **Results:** Logistic regression analysis showed that therapeutic alliance and attachment styles can distinguish people dropped out of treatment and people continuing treatment. **Conclusion:** These findings, consistent with previous studies, indicate the role of variables pertaining to interpersonal relationships in the treatment drop-out of patients with substance abuse.

Keywords: drop-out treatment, therapeutic alliance, attachment, addiction

The Role of Therapeutic Alliance and Attachment Styles in Treatment Drop-out among Substance Abusers

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Introduction

Many clients leave the centers of psychological services without consent or even without informing the therapist about their resignation before the end of the treatment process (Swift, Greenberg, Tompkins, & Parkin, 2017; Pulford, Adams, & Sheridan, 2008), which is referred to as dropout, and most researchers have referred to it as failure in treatment (Brorson, Arnevik, Rand-Hendriksen, & Duckert, 2013). Research has shown that the dropout of psychological and psychiatric treatment is a common issue (Green, Polen, Dickinson, Lynch, & Bennett, 2002; Reis, & Brown, 1999), which can have harmful consequences for patients as well as many negative effects on therapists, treatment centers, and research programs. The consequence of patient dropout is that not only does the patient's problem remains unsolved but also s/he may be at increased risk of relapse, his/her hope and confidence in the treatment of his problems may be reduced, and the likelihood of his/her return to treatment sessions decreases. In addition, dropout of patients leads to the induction of the sense of insufficiency and inefficiency in clinical practitioners (Minnix et al., 2005). Dropout or refusal to end the treatment is a serious problem in the field of psychotherapy and pharmacotherapy and, thereby, the providers of these treatments should develop effective and manageable strategies to ease this phenomenon (Swift et al., 2017).

In a classic meta-analysis of 125 studies in the field of patient dropout and preterm psychotherapy, the rate of dropout from treatment by patients was reported 47% (Bados, Balaguer, & Saldaña, 2007). The study conducted by Mueller, & Pekarik (2000) showed that 13% to 20% of patients in private clinics and 40% to 50% of patients in public health centers did not stay in the treatment more than two sessions. However, research literature shows that only 50% of all patients in less than 8 sessions exhibit significant reductions in symptoms, and 75% of them reach such a progress after 26 sessions. Recent studies in mental health centers of different countries have shown a dropout of between 24% and 66%: Although this figure has fluctuated between 35% and 55% (Berghofer, Schmidl, Rudas, Steiner, & Schmitz, 2002; Bados et al., 2007).

In this regard, substance abuse disorder is one of the major psychological disorders that is associated with a high rate of dropout, and having information about the causes and methods of dropout adopted by these patients can be of help (Fuchshuber et al., 2018). Such information will not only help in therapeutic decision-making for the specific activities of clinicians, but can also be used to determine the predictive factors associated with the readiness for initial change in group therapy programs or one-to-one treatments. One of the benefits of identifying patients at the risk of early dropout is that it is possible to prevent using "One Size Fits All" approach by determining the priority of treatment (triage) or placing a patient in appropriate or and goal-oriented therapies (Orwin, Garrison-Mogren, Lou Jacobs, & Sonnefeld, 1999). Although there is no consensus on specific features of a treatment plan that significantly enhances the

patient's presence and attendance in the treatment, some variables pertaining to the patient and his/her interpersonal relationships, especially with the therapist, can contribute to the dropout or continuation of treatment. Some studies have shown that attachment patterns of patients play a great role in the rate of treatment dropout (Fuchshuber et al., 2018). Attachment styles determine the ways individuals encounter stressful situations, which, according to Ainsworth et al., (1978), are divided into three styles, namely secure, avoidant, and ambivalent attachment styles (Kobak, & Sceery, 1988; as cited in Besharat, Ghafuri, & Rostami, 2017). Secure people, while acknowledging the situation, simply find help from others; avoidant people face difficulty acknowledging the situation and seeking help and support; and the prominent feature of ambivalent individuals is their oversensitivity to negative emotions and attachment figures. Patients with a secure attachment style are in a good relationship with others and expect others to respond positively (Critchfield, Levy, Clarkin, & Kernberg, 2008). Kassel, Wardle & Roberts (2007) argued that adult attachment styles lead to the increased frequency of drug use by influencing individuals' inefficient attitudes and self-esteem. Although there are few related studies that have measured attachment styles and their relationship with drug use or variables related to drug use withdrawal, research findings have shown that people with insecure attachment style suffer from serious problems at the onset and in the continuation of psychotherapy, which is also a help-seeking strategy (Fowler, Groat, & Ulanday, 2013).

Another variable that can play a major role in terms of dropout of treatment is the therapist-patient relationship. Therapeutic alliance in all psychotherapy interventions has been introduced as one of the essential therapeutic requirements (Cheng, & Lo, 2018). Despite the existence of different conceptualizations, the main emphasis in the definition of this concept is on the cooperation and consensus of the therapist/patient in regard to therapeutic goals and tasks (Horvath, & Bedi, 2002) and on the existence of an emotional commitment and linkage between the patient and therapist (Martin, Garske, & Davis, 2000). Several studies have examined the agreement between the patient and therapist in line with what will occur in the treatment and have found that the convergent or common perspectives between the therapist and patients leads to better treatment outcomes (Kivligha, Dennis, & Shaughnessy, 2000; Reis, 1999).

Martin et al. (2000) believe that the therapist-patient relationship, patients' expectations of treatment, and therapeutic alliance are good predictors of the degree of dropout or therapeutic outcomes; however, positive expectations are the conditions for the continuation of the treatment rather than the main change process. For this reason, some studies have suggested that the lack of coordination between the patient and the therapist can predict the early withdrawal of treatment, and an important number of studies show that there is a correlation between therapeutic relations and patient expectations of treatment

and dropout, and these variables are predictors of an untimely end of the treatment sessions (Brorson et al., 2013). In addition, some studies also indicate that the initial negative assessment of the therapist by the patient for the first time also leads to early withdrawal of treatment (Nordheim et al., 2018). Considering the importance of these variables in a variety of psychological and therapeutic issues, the aim of this study was to investigate the role of these two variables in the dropout of drug dependent patients from treatment.

Sample

Population, sample, and sampling method

A correlational research design was used for the conduct of this study. The statistical population of the present study included all drug users of Tehran city in the years of 2015 and 16 who had presented to one of the treatment centers in Tehran. A sample of 300 participants was selected from the population through purposive sampling. With the diagnosis of a therapist (through structured clinical interviews), a file was opened for each participant and the initial interview was conducted, and the entry criteria were also taken into account. It is noteworthy that 234 male participants (mean age of 34.92 ± 7.86 years) participated in the whole research process and about 60 ones were excluded from the research due to lack of cooperation and non-return of the questionnaires. The exit criteria were the age under 18 years, severe organ diseases that made the patient's natural presence in the treatment difficult, and alcohol dependence. Out of 234 cases, 134 patients (55.5%) left the treatment during the first two months and, therefore, they were classified as the dropout group and 104 ones (45.5%) continued the treatment.

Instruments

1. Working Alliance Inventory/Short (WAI-S): Several measurement scales have been constructed for measuring therapeutic alliance, but WAI-S (Horvath & Greenberg, 1986, 1989; Martin et al., 2000) has been most frequently used. Horvath & Greenberg (1989; Horvath, 1981) employed a theory-driven approach from Bordin's alliance model (1979, 1980) to develop this scale. The core of Bordin's theory is that alliance is an important feature of collaboration and dialogue in therapeutic relations that consists of three dimensions: (1) agreement between the patient and the therapist on the goals of the treatment; (2) agreement between the patient and the therapist that the therapeutic tasks in the treatment will be the patient's problem; and 3) quality of interpersonal bond between the patient and the therapist (Robert, Hatcher, & Gillaspay, 2006). The 12-item questionnaire of the Working Alliance is the short form of the WAI-S where the high correlations of 0.94 and 0.95 have been reported to exist between the total scores of the two questionnaires. The bond scale had the highest correlation (0.91, 0.94) while the goal scale (0.86, 0.91) and task scale (0.83, 0.87) were placed in the following ranks.

2. Adult Attachment Scale: This scale has been extracted from Hazan, & Shaver's (1987) attachment tests and standardized on students of Tehran University (Besharat et al., 2007). This is a 15-item test and consists of three dimensions, secure, avoidant, and ambivalent attachment styles that are assessed on a 5-point Likert scale (from very low = 1 to very much = 5). The minimum and maximum scores in this test are 5 and 25, respectively. The Cronbach's alpha coefficients of secure, avoidant, and ambivalent components on a student sample (1480 individuals: 860 girls and 620 boys) were obtained equal to 0.85, 0.84, 0.85, respectively. The correlation coefficients of this scale and its dimensions were calculated on a 300-member sample within a four-week interval through re-test reliability method. These coefficients for secure, avoidant, and ambivalent attachment styles were equal to 0.87, 0.83, and 0.84, respectively. The content validity of Adult Attachment Scale was assessed by determining the correlation coefficients among the scores of fifteen psychologists. Kendall's coefficients of concordance for secure, avoidant, and ambivalent attachment styles were obtained equal to 0.80, 0.61, and 0.57, respectively. The concurrent validity of the Adult Attachment Scale was assessed through the simultaneous administration of the Inventory of Interpersonal Problems and Coopersmith Self-Esteem Inventory to a 300-participant sample. The results verified the validity of the scale. The results of factor analysis confirmed the existence of three factors and, in this way, the construct validity of the scale was approved (Cassidy, & Shaver, 1999).

3. Structured Clinical Interview for Axis 1 Disorders: This is a semi-structured interview for axis 1 disorders, developed by Firs, Spitzer, Gibbon, & Williams (1997) to diagnose disorders. The present interview enjoys a good validity and reliability for the diagnosis of mental disorders (Groth-Marnat, 1997). Sharifi et al. (2004) reported a moderate to good diagnostic agreement for most of the specific and generalized diagnoses (Kappa coefficient higher than 0.60). The overall agreement (total kappa) for current diagnoses was 0.52 and for overall lifetime diagnosis was 0.55.

Procedure

If eligible according to the entry criteria, the patients presenting to addiction treatment centers for treatment were included in the research. They filled out the research questionnaires after announcing their informed consent and undergoing a structured clinical interview. Before responding to the questions, required explanations were provided about the main purpose of the research, how to complete the questionnaires, and the need for honesty and patience in responding to questions were offered to the participants.

Results

The descriptive statistics of the research variables are presented in Table 1.

Table 1: Descriptive Statistics of the Research Variables in the Sample Group

<i>Variables</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>
Therapeutic Alliance	42.38	6.68	234
Avoidant attachment	13.61	3.78	234
Secure attachment	18.73	4.50	234
Ambivalent attachment	15.57	4.05	234

In order to evaluate the relationship of therapeutic alliance with treatment dropout, the logistic regression analysis was used to distinguish those who continued treatment and those who did not complete the treatment where the results are presented in the following tables.

Table 2: Analytic Logistic Regression Analysis based on Therapeutic Alliance and Predicted Group Membership

<i>Group</i>	<i>No dropout</i>	<i>Dropout</i>	<i>Correct percentage</i>	<i>Chi square</i>	<i>Df</i>	<i>Sig.</i>	<i>Cox-Snell R²</i>	<i>Nagel Kirk R²</i>
No dropout	18	24	36.3					
Dropout	18	112	86.2	4.01	1	0.04	0.06	0.09
Total	-	-	64.6					

Regression coefficients are presented in Table 3.

Table 3: Regression Coefficients of Dropout based on Therapeutic Alliance

<i>Predictor</i>	<i>B</i>	<i>Wald confidence</i>	<i>Df</i>	<i>Sig.</i>	<i>Probability ratio</i>
Therapeutic alliance	-0.04	3.24	1	0.05	1.20

As it is observed in the tables above, therapeutic alliance is a significant predictor of dropout. Cox-Snell R² and Nagel Kirk R² also suggest that therapeutic alliance accounts for about 6 to 9% of the variance, and 64.6% of participants have been categorized correctly in terms of dropout and non-dropout.

In addition, in order to evaluate the relationship between attachment styles and dropout of treatment, logistic regression analysis was used to distinguish those who continued the treatment and those who dropped out of the treatment, and the results are presented in the following tables.

Table 4: Logistic Regression Analysis of Dropout based on Therapeutic Alliance and Predicted Group Membership

<i>Group</i>	<i>No dropout</i>	<i>Dropout</i>	<i>Correct percentage</i>	<i>Chi square</i>	<i>Df</i>	<i>Sig.</i>	<i>Cox-Snell R²</i>	<i>Nagel Kirk R²</i>
No dropout	42	62	40.4					
Dropout	21	109	83.8	15.11	1	0.002	0.06	0.08
Total	-	-	64.5					

Regression coefficients are presented in Table 5.

Table 5: Regression coefficients of dropout based on attachment styles

<i>Predictor</i>	<i>B</i>	<i>Wald confidence</i>	<i>Df</i>	<i>Sig.</i>	<i>Probability ratio</i>
Avoidant	-0.04	1.88	1	0.29	0.96
Secure	-0.10	9.52	1	0.002	1.11
Ambivalent	0.04	1.60	1	0.20	0.95

As it is observed in the tables above, attachment styles are a significant predictive variable for rates of dropout. . Cox-Snell R^2 and Nagel Kirk R^2 also suggest that attachment styles account for about 6 to 8% of the variance and 64.5% of participants have been categorized correctly in terms of dropout and non-dropout.

Discussion and Conclusion

The results of this study showed that patients with a higher degree of therapeutic alliance were 1.2 times less likely to drop out of treatment. This finding is consistent with those of the studies conducted by Simpson (1979), Pulford et al. (2008), Brorson et al. (2013), Barber et al. (1999), and Horvath, & Bedi (2002). According to Simpson (1979), in successful therapeutic outcomes (that is, those who abstained from or significantly reduced drug use), there is an increasing linear relationship between the length of the sessions that patient remains in addiction treatment and the patient's presence in the treatment for more than three months. Therapeutic alliance has an important therapeutic application through an empathetic consensus between the client and the therapist. In line with the results of the present study, a review study on research into the identification of risk factors associated with the rates of dropout, published in various journals from 1992 to 2013, suggests that low levels of therapeutic alliance are a very important risk factor in the dropout process (Brorson et al., 2013). In a variety of psychotherapy methods, at least 10% of the psychotherapy outcomes -why patients are restored as a result of psychotherapy- pertains to the therapeutic relationship. For this reason, the lack of coordination between the patient and the therapist can predict the early dropout of treatment (Horvath, & Bedi, 2002). Psychotherapy, based on the model proposed by Yalom (1975), is the removal of existing barriers to the formation of satisfactory relationships. In this regard, Yalom's emphasis is always on the fact that patients see the treatment sessions with a different look towards the therapist, and the therapist's task is to maintain his/her on the progressive relationship between the therapist and the clients. What is healing in psychotherapy is what happens between the therapist and the patient (Yalom, Brown, & Bloch, 1975; as cited in Josselson, 2011). One of the most persistent health factors associated with satisfying results in all types of addiction treatments is the termination of treatment (Dalsbo et al., 2010). Failure in finishing the treatment (or dropout) is very common, although dropout is not specific to addiction treatment and is generally seen in all forms of psychotherapy (Swift et al., 2017). Considering that almost 25% of patients experience recovery even after one session and 50% of them experience so after 8 sessions (Horvath et al., 1986; as cited in Brorson et al., 2013), addiction experts have come to the conclusion that even if patients drop out after some therapeutic sessions, the positive therapeutic outcomes will persist and this is an emphasis on the importance of preventing dropout of patients and increasing the number of sessions in which the patients attend. According to some studies

patients who leave addiction treatment in the first three months of treatment do not report significant improvements (Simpson, 1995).

Findings pertaining to the role of attachment in dropout showed that individuals with a secure attachment were 1.11 times less likely to drop out of treatment. Although according to the results, attachment styles generally act successfully in the prediction of dropout, weaker supports have been obtained regarding the relationship between avoidant and ambivalent attachment styles; and only the secure attachment style could show a significant predictive power for the dropout of patients with drug abuse. This research finding is consistent with the findings of research conducted by Tasca et al. (2004), and Korfmacher, Adam, Ogawa, & Egeland (1997). In fact, the autonomous clients are more cooperative in the treatment process in contrast to those who have less autonomy. Patients with an autonomous and secure mental state have internal resources that allow them to look at treatment with a non-defensive and cooperative approach (Korfmacher et al., 1997). In line with the current study and according to the study conducted by Mallinckrodt (2000; as cited in Mallinckrodt, 2005), the relatively secure attachment towards caregivers in childhood facilitates the development of important social competencies that are required to create and maintain close and supportive relationships in adulthood. In addition, the presence of insecure attachment not only makes basic psychological needs (such as autonomy, competency, and relatedness) less accessible, but also exposes the person to higher levels of distress. Persons with a secure attachment generally feel empowered and deserving of affection, and view others as trustworthy and reliable; therefore, they are comfortable both with mutual autonomy and mutual dependence. Secure attachment style is associated with greater commitment, trust, intimacy, enthusiasm, satisfaction, stability, and durability in relationships (Feeney, 2002). Although mental state depends primarily on how information is processed in the first attachment relationship, it is also related to the way the current relationship is handled. The relationship between the individual's mental state and his/her current relationships includes peer, siblings, parents, and especially the therapist.

Initial experiences with caregivers gradually lead to a system of thoughts, memories, beliefs, expectations, emotions, and behaviors toward the "self" and "others." This system is referred to as "the internal active models of social relations", which extends over time and experience. Internal active models interpret and predict attachment-related behaviors in the self and attachment pattern (s). As these models develop with environmental and developmental changes, they have the capacity to reflect the individuals' past and future attachment relationships (Bretherton, & Munholland, 1999). Internal active models, which are some part of the "relational schemas" (Mikulincer, Gilatt & Shaver, 2002), act in the same way as other cognitive structures, such as attitudes, stereotypical behaviors, and attributes; and are obedient to activation and accessibility principles. For example, the type of "model of self" and "model

of other" can, according to these principles, create certain expectations for the individual. The "model of self" determines the range of the individual's value for him/herself, and it is expected that others respond positively to him/her. In this case, the person asks him/herself: "Am I a person who deserves the ability and value of love and attention?" While the "model of other" offers some limits in which other people are expected to be available and supportive when needed. In this case, one asks him/herself: "Is the other one likely to provide me with the support that I need?" (Mikulincer, Gilatt & Shaver, 2002). It is very important to consider the attachment status of clients and their complications in substance abusers' response to psychotherapy (Fuchshuber et al., 2018; Fonagy et al., 1996).

With regard to the secure attachment relationship, there is the perception that it provides a sense of safety, comfort, and predictability. It is believed that this link facilitates the development of internal active patterns. Therefore, secure attachment facilitates the regulation of affection and other coping skills, which ultimately leads to less dependence on attachment schemas and more confidence in the internal aspects of attachment (Rice, Cunningham, & Young, 1997). In spite of the evidence for the persistence of attachment styles, there is evidence that styles are not permanent. In the current conditions, there is controversy over the persistence of attachment styles over time and the reasons for this persistence (Fraley, 2000; Thompson, 1998). Some evidence suggests that one can have multiple attachment patterns. Perhaps a person uses one pattern in relation to men, and another one in relation to women, or one pattern in one situation and another one in another situation (Berman, & Sperling, 1994).

These findings may suggest that, in the general sense, substance abusers may achieve less positive outcomes in the primary phase, unlike psychiatric patients. Helping substance abusers stay in treatment through consideration of attachment styles and the establishment of a consistent and effective therapeutic alliance has critical clinical implications. It is suggested that such studies be conducted on female substance abusers, along with multi-year follow-ups to explain the dropout mechanism behind psychotherapy and come to stronger generalizability.

References

- Ainsworth, M. D.S, Blehar, M. C., Waters, E., & wall, S.(1978). Patterns of attachment: A psychological study of the strange situation. Hillsdale, NJ: Lawrence Erlbaum Association.
- Bados, A., Balaguer, G., & Saldaña, C. (2007). The efficacy of cognitive-behavioral therapy and the problem of drop-out. *Journal of clinical psychology*, 63(6), 585-592.
- Berghofer, G., Schmidl, F., Rudas, S., Steiner, E., & Schmitz, M. (2002). Predictors of treatment discontinuity in outpatient mental health care. *Social Psychiatry and Psychiatric Epidemiology*, 37(6), 276-282.
- Berman, W. H., & Sperling, M. B. (1994). The structure and function of adult attachment. In M. B. Sperling & W. H. Berman (Eds.). *Attachment in adult*. New York: Guilford Press.

- Basharat, M., Ghafouri, B., & Rostami, R. (2007). Comparison of attachment styles between patients with substance abuse disorders and non-addicted individuals, *Journal of Research In Medical Sciences*, 31 (3), 265-271.
- Brorson, H. H., Arnevik, E. A., Rand-Hendriksen, K., Duckert, F. (2013). Drop-out from addiction treatment: A systematic review of risk factors. *Clinical Psychology Review*, 33, 1010-1024.
- Cassidy J, Shaver PR, editors. Handbook of attachment: theory, research, and clinical application. New York: Guilford Press, 1999.
- Cheng, T. C., & Lo, C. C. (2018). A Longitudinal Analysis of Factors Associated with Therapeutic Alliances. *Community mental health journal*, 1-11.
- Critchfield, K. L., Levy, K. N., Clarkin, J. F., & Kernberg, O. F. (2008). The relational context of aggression in borderline personality disorder: Using adult attachment style to predict forms of hostility. *Journal of Clinical Psychology*, 64(1), 67-82.
- Feeney, J. A. (2002). Attachment, marital interaction, and relationship satisfaction: A diary study. *Personal Relationships*, 9(1), 39-55.
- First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Clinical Version. Washington, DC: *American Psychiatric Association*
- Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., ... & Gerber, A. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of consulting and clinical psychology*, 64(1), 22.
- Fowler, J. C., Groat, M. and Ulanday, M. (2013), Attachment Style and Treatment Completion among Psychiatric Inpatients with Substance Use Disorders. *Am J Addict*, 22: 14–17. doi:10.1111/j.1521-0391.2013.00318.x
- Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 330-365.
- Fuchshuber, J., Hiebler-Ragger, M., Ragger, K. et al. BMC Res Notes (2018) 11: 141. <https://doi.org/10.1186/s13104-018-3251-7>
- Georgiana Shick Tryon , Sasha Collins Blackwell & Elizabeth Felleman Hammel (2007): A meta-analytic examination of client–therapist perspectives of the working alliance, *Psychotherapy Research*, 17:6, 629-642.
- Green, C. A., Polen, M. R., Dickinson, D. M., Lynch, F. L., & Bennett, M. D. (2002). Gender differences in predictors of initiation, retention, and completion in an HMO-based substance abuse treatment program. *Journal of Substance Abuse Treatment*, 23(4), 285–295.
- Groth-Marnat, G. (1997). Handbook of psychological assessment (9th. ed). New York: John Wiley & Sons.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 42, 511- 542.
- Horvath, A. O., & Bedi, R. P. (2002). The alliance. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients*. New York: Oxford University Press. 37_69.
- Horvath, Adam O.; Greenberg, Leslie S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, Vol 36(2), 223-233.
- Hubble, M. A., Duncan, B. L., & Miller, S. D. (1999). The heart and soul of change: What works in therapy. *American Psychological Association*.

- Kivlighan Jr, D. M., & Shaughnessy, P. (2000). Patterns of working alliance development: A typology of client's working alliance ratings. *Journal of Counseling Psychology*, 47(3), 362.
- Kobak RR, Sceery A. (1988). Attachment in late adolescence: working models, after regulation and representations of self and others. *Child Dev.*59:135-46.
- Korfmacher, J. Adam, E. Ogawa, J. Egeland, B. (1997). Adult Attachment: Implications for the Therapeutic Process in a Home Visitation Intervention. *Applied Developmental Science*.1: 43-52.
- Mallinckrodt, B. (2000) Attachment, Social Competencies, Social Support, and Interpersonal Process in Psychotherapy. *Psychotherapy Research*.10: 239-266.
- Mallinckrodt, B., Porter, M. J., & Kivlighan Jr, D. M. (2005). Client Attachment to Therapist, Depth of In-Session Exploration, and Object Relations in Brief Psychotherapy. *Psychotherapy: Theory, Research, Practice, Training*, 42(1), 85.
- Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables. *Journal of Consulting and Clinical Psychology*, 68, 438_450.
- Minnix, J. A., Reitzel, L. R., Repper, K. A., Burns, A. B., Williams, F., Lima, E. N., ... & Joiner, T. E. (2005). Total number of MMPI-2 clinical scale elevations predicts premature termination after controlling for intake symptom severity and personality disorder diagnosis. *Personality and Individual Differences*, 38(8), 1745-1755.
- Mueller, M., & Pekarik, G. (2000). Treatment duration prediction: Client accuracy and its relationship to dropout, outcome, and satisfaction. *Psychotherapy: Theory, Research, Practice, Training*, 37(2), 117.
- Nordheim, K., Walderhaug, E., Alstadius, S., Kern-Godal, A., Arnevik, E., & Duckert, F. (2018). Young adults' reasons for dropout from residential substance use disorder treatment. *Qualitative Social Work*, 17(1), 24-40.
- Orwin, R. G., Garrison-Mogren, R., Jacobs, M. L., & Sonnefeld, L. J. (1999). Retention of homeless clients in substance abuse treatment: Findings from the National Institute on Alcohol Abuse and Alcoholism Cooperative Agreement Program. *Journal of Substance Abuse Treatment*, 17(1), 45-66.
- Pulford, J., Adams, P., & Sheridan, J. (2008). Therapist attitudes and beliefs relevant to client dropout revisited. *Community mental health journal*, 44(3), 181-186.
- Reis, B. F., & Brown, L. G. (1999). Reducing psychotherapy dropouts: Maximizing perspective convergence in the psychotherapy dyad. *Psychotherapy*, 36, 123_136.
- Rice, K. G., Cunningham, T. J., & Young, M. B. (1997). Attachment to parents, social competence, and emotional well-being: A comparison of Black and White late adolescents. *Journal of Counseling Psychology*, 44(1), 89.
- Robert L. Hatcher & J. Arthur Gillasp (2006) Development and validation of a revised short version of the working alliance inventory, *Psychotherapy Research*, 16:1, 12-25
- Sharifi, V., Asadi, M., Mohammadi, M., Amini, H., Semnani, Y., Shabani, A., Shahrivar, Z., Davari Ashtiani, R., Hakim Shushtari, M., Sedigh, A., & Jalali Roodsari; M. (2004). The Reliability and Practicality of the Persian Version of the *Structured Diagnosis Interview for DSM-IV (SCID-I)*, *Journal of Advances in Cognitive Science*, 1 & 2, 10-22.
- Simpson, D. D. (1979). The relation of time spent in drug abuse treatment to posttreatment outcome. *The American Journal of Psychiatry*, 136(11), 1449-1453.

- Simpson, D. D., Joe, G. W., Rowan-Szal, G., & Greener, J. (1995). Client engagement and change during drug abuse treatment. *Journal of Substance Abuse Treatment*, 7, 117– 134.
- Swift, J. K., Greenberg, R. P., Tompkins, K. A., & Parkin, S. R. (2017). Treatment refusal and premature termination in psychotherapy, pharmacotherapy, and their combination: A meta-analysis of head-to-head comparisons. *Psychotherapy*, 54(1), 47-57.
- Tasca, G. A., Taylor, D., Ritchie, K., Balfour, L. (2004). Attachment Predicts Treatment Completion in an Eating Disorders Partial Hospital Program Among Women With Anorexia Nervosa. *Journal of Personality Assessment*. 83 (3): 201-212.
- Tyrrell, C. L., Dozier, M., Teague, G. B., & Fallot, R. D. (1999). Effective treatment relationships for persons with serious psychiatric disorders: The importance of attachment states of mind. *Journal of Consulting and Clinical Psychology*, 67(5), 725.
- Vogel, D. L., & Wei, M. (2005). Adult Attachment and Help-Seeking Intent: The Mediating Roles of Psychological Distress and Perceived Social Support. *Journal of Counseling Psychology*, 52(3), 347.