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Therapeutic alliance and adherence to online CognitiveBehavioral Therapy for alcohol addiction

Aliança terapêutica e adesão à Terapia CognitivoComportamental na modalidade online para dependentes de álcool

ABSTRACT

Cognitive Behavior Therapy (CBT) shows ample evidence of effectiveness for alcoholism treatment. However, there are few studies regarding the effectiveness of online CBT and the role of therapeutic alliance in that modality. The present study aims to evaluate therapeutic alliance in the treatment of Alcohol Use Disorder between groups that adhered (n=13) or not (n = 8) to CBT videoconference. This study includes 21 clients from different parts of Brazil. They attended 12 sessions of treatment about coping skills delivered by the internet, with three therapists, in two clinical studies. Therapists (WAI-T) and clients (WAI-C) answered the Working Alliance Inventory. In the group that adhered, the mean score of WAI-T in the fourth session was significantly higher, including the general scale, goals, tasks, and bond subscales. There was no significant difference in WAI-C. Among those who adhered, clients and therapists perceived a high therapeutic alliance throughout the psychotherapeutic process, and there was a significant reduction in alcohol consumption. Sociodemographic factors, computer use, and face-to-face assessment did not interfere with alliance and adherence. In conclusion, the therapeutic alliance can be established and maintained in internet-based interventions with alcohol dependents, and there is evidence of its influence on treatment adherence.

Keywords: Therapeutic Alliance; Internet-Based Intervention; Alcoholism.

Resumo

A Terapia Cognitivo-Comportamental (TCC) possui um bom suporte de evidências para o tratamento do alcoolismo, mas há lacunas na literatura sobre a modalidade online quanto a efetividade, aliança terapêutica (AT) e sua relação com resultados do tratamento. O objetivo deste estudo foi avaliar a AT no tratamento de dependentes de álcool que aderiram (n=13) e que não aderiram (n=8) à TCC por videoconferência. Foram incluídos 21 clientes de diversas partes do Brasil, que participaram de 12 sessões online de TCC de Habilidades de Enfrentamento, com três terapeutas, em dois estudos clínicos. O Working Alliance Inventory foi preenchido pelo terapeuta (WAI-T) e cliente (WAI-C). As médias do WAI-T na quarta sessão foram significativamente maiores no grupo que aderiu, na escala geral e nas subescalas de objetivos, tarefas e vínculo, mas não houve diferença no WAI-C. Considerando os que aderiram, a aliança foi percebida como alta ao longo de todo o processo terapêutico, pelos clientes e terapeutas e houve redução significativa do consumo de álcool. Fatores sociodemográficos, uso do computador e avaliação presencial não interferiram na aliança e adesão. Conclui-se que a aliança pode ser estabelecida e mantida na terapia online com alcoolistas e que há indícios de sua influência na adesão.

Palavras-chave: Aliança Terapêutica; Intervenção Baseada em Internet; Alcoolismo.

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INTRODUCTION

Alcohol consumption is characterized as a severe public health problem, accounting for 3 million deaths annually (5.3% of total deaths) (World Health Organization [WHO], 2018). In Brazil, according to the 3rd National Survey on Drug Use by the Brazilian Population, the prevalence of alcohol consumption was 43%, and alcohol addiction was 3.5% in the year before the survey. The survey also finds that only 1.4% received the proper treatment for this use among individuals who used some substance, demonstrating the low supply of specialized treatment for these disorders (Bastos et al., 2017).

Telepsychotherapy, which corresponds to the offer of psychotherapy treatment by the technologies, has been established as a robust alternative of treatment (Norwood et al., 2018). In the case of Alcohol Use Disorder (AUD) and other substances, it presents a way to reduce disparities in access to mental health treatment, allowing individuals to address the stigma that sometimes prevents them from seeking health services (Connery et al., 2020). Although studies show that internet treatments are effective for several disorders (Johansson et al., 2016; Josephine et al., 2017; King et al., 2019; Kruse et al., 2020; Simblett et al. 2017), therapists are unsure about the possibility of establishing a satisfactory therapeutic alliance in this modality of treatment (Singulane & Sartes, 2017). Nevertheless, this idea goes against the pieces of evidence, considering that studies show similar results between the alliance established in telepsychotherapy and face-to-face therapy (Andersson, 2016; Bouchard et al., 2000; Carlbring et al., 2018; Karyotaki et al., 2018; Karyotaki et al. al., 2018).

Among the telepsychotherapy treatment modalities (e.g., telephone, chat, e-mail), videoconferencing psychotherapy has been identified as the closest face-to-face model. This modality can reduce the barriers of physical distance through the synchronous sharing of audio and image, which gives a greater sense of connection (Norwood et al., 2018, Watts et al., 2020). Literature reviews also indicate that the therapeutic alliance in this modality is similar to that found in face-to-face interventions (Backhaus et al., 2012; Singulane & Sartes, 2017).

The therapeutic alliance is a relationship of agreement between therapist and client regarding the goals and tasks of therapy, besides the establishment of a bond marked by empathy, respect, and unconditional positive regard (Bordin, 1979). Studies point to the therapeutic alliance as a common factor of the psychotherapeutic process and a predictor of treatment-related outcomes (Blease & Kelley, 2018; Feinstein et al., 2015; Leibert & Dunne-Bryant, 2015; Magill & Longabaugh, 2013), including adherence (Roos & Werbart, 2013). Christensen et al. (2009) define adherence as the degree to which individuals experience the content of the intervention. There is an increasing focus on studying adherence in telepsychotherapy, aiming to understand the factors influencing treatment engagement and those contributing to dropout.

Studies indicate an association between poor alliance quality and psychotherapy dropout (D'Aniello & Tambling, 2019; Strauss et al., 2010). Keleher et al. (2017) found a relationship between a good alliance and dropout planned from therapy. Gülüm et al. (2016) found that positive behaviors and attempts to repair the alliance rarely occur in sessions before dropout. Hargreaves et al. (2018) stated that the alliance contributed significantly to treatment adherence, explaining about 30% of the variance in computerized intervention time. Dearing et al. (2005) combined data from two studies of individuals with AUD who received CBT for substance use in 12 sessions protocol, comparing variables such as adherence, alliance, client satisfaction, and therapy outcomes. The study indicated that positive perception of the therapeutic alliance, the higher frequency at sessions, and positive expectations about treatment are related to greater client satisfaction and better therapy outcomes.

During the covid-19 pandemic, mental health conditions worsened. Social distancing intensified feelings of loneliness, sadness, and anxiety, increasing alcohol consumption and decreasing access to face-to-face treatment (DiClemente et al., 2020). In Brazil, alcohol consumption increased by 17.6% in the first months of the pandemic (Fundação Oswaldo Cruz [Fiocruz], 2020). The economic impact, overload on health services, and decreased health investments specific to this population during the health crisis have further increased disparities in access to mental health care. Therefore, web-based interventions rise as the main form of safe access to treatment in this context (Jemberie et al., 2020).

Thus, this study aimed to investigate, through a cognitive-behavioral treatment by videoconference for AUD: 1) the level of therapeutic alliance in videoconference psychotherapy according to perspectives of clients and therapists; 2) the differences in the level of the therapeutic alliance between the group that adhered and the group that did not adhere to treatment; 3) the sociodemographic characteristics of the group that adhered and the group that did not adhere to the intervention, and 4) the number of doses consumed and days abstinent in the last month.

METHODS

PARTICIPANTS

This study contains secondary data from 21 Alcohol and Health Program clients, a research project developed at the Federal University of Juiz de Fora (UFJF). Alcohol and Health embrace two studies: Study 1, n = 9 and Study 2, n = 12. Both studies included individuals, from 18 to 65 years old, with alcohol addiction, evaluated through the Mini International Neuropsychiatric Interview 5.0.0 version (M.I.N.I, according to DSM-IV) (American Psychiatric Association [APA], 2002). The individuals were excluded if they had other drugs addiction (excepted tobacco), had shown severe psychiatric disorders, had been abstinent for more than 30 days and had participated in

specialized interventions for alcohol addiction in the last three months.

STUDY 1

Study 1 was a randomized clinical trial (RCT; REBEC: nº RBR-74jtvm) that aims to evaluate the effectiveness of psychotherapy by videoconference for alcohol addiction on an outpatient basis. It included men who that searched for alcohol treatment in the Center for Applied Psychology (CPA) of UFJF. After being evaluated to check the legible criteria, the participants were randomized for face-to-face psychotherapy or psychotherapy by videoconference. Both modalities of psychotherapy were developed at CPA (Gumier, 2019). Only online psychotherapy participants participated in the study.

STUDY 2

Study 2 was a single-group study that aimed to evaluate the viability and acceptance of psychotherapy by videoconference. It was included men and women from all over Brazil, who showed the probability of alcohol addiction in Alcohol Use Disorders Identification Test (AUDIT; Lima et al., 2005), fulfilled throughout informalcool.org.br, a site developed by World Health Organization (WHO), in partnership with researchers from five countries. Researchers from the Federal Universities of São Paulo, Juiz de Fora, and Paraná translated the Dutch version into the Brazilian version. The site includes a screening to investigate the pattern of alcohol consumption, the AUDIT, and a personalized self-guided intervention called BeberMenos. which offers personalized feedback and tools based on CBT that must be applied during six weeks. People referred for Alcohol and Health Program had received an e-mail with an invitation to participate in online psychotherapy and had no face-to-face contact with the therapist (Cançado, 2017).

THERAPISTS

Studies 1 and 2 had the same three therapists, master's, doctoral, and undergraduate students from the last year of Psychology, with different levels of clinical experience. They received training about online psychotherapy, alcohol and drugs, and the CBT protocol for alcohol addiction. They also were supervised by a therapist and researcher with 15 years of clinical experience. The supervision happened weekly.

TREATMENT

Both studies followed the same protocol, based on Match Project (Kadden et al., 1995), of the National Institute on Alcohol Abuse and Alcoholism (NIAAA), translated and adapted for the Brazilian context (Gumier, 2019). The protocol includes 12 sessions of CBT for coping skills for alcohol addiction, besides prevention relapse and motivational interview elements. The themes of eight sessions are pre-defined, and elective topics guide the other four sessions. In the last case, clients can choose, according to their needs, among 14 possible themes. On

the whole, the sessions included the establishment of goals to be achieved, the client psychoeducation in concepts related to alcohol consumption, recognition of risk situations, discussion of motivation strategies, training in coping skills, and problemsolving and tasks of self-monitoring of alcohol use.

INSTRUMENTS

SOCIODEMOGRAPHIC DATA

Questions about age, sex, religion, schooling, profession, social class, and frequency of computer use.

Working Alliance Inventory - WAI (Horvath & Greenberg, 1989)

Clients (WAI-C) and therapists (WAI-T) answered the therapeutic alliance. Three subscales about goals, tasks, and bonds compose the WAI Each of them has 12 questions. Scores can range from 36 to 252 for the full scale and from 12 to 84 points per subscale. The higher the score, the better the alliance. The instruments were adapted and are in the process of evaluating the evidence of validity for online application (Ribeiro, 2017).

QUESTIONS ABOUT ALCOHOL CONSUMPTION IN THE LAST 30 DAYS

The researchers of the present study developed this measure. It involves the dose of alcohol consumed by occasion and the number of days of abstinence.

MINI INTERNATIONAL NEUROPSYCHIATRIC INTERVIEW VERSÃO 5.0.0 (M.I.N.I) - BRAZILIAN VERSION (AMORIM, 2000)

the alcohol and drugs and other mental diseases diagnosis is performed by a brief standardized interview, based on DSM-IV (APA, 2002).

TREATMENT ADHERENCE

It corresponded to the number of sessions that the client attended. The adherence was considered if the client attended at least 50% of sessions and did not overcome three absences during the treatment (Ballegooijen et al., 2014). The group that did not adhere was composed of clients who did not attend at least 50% of sessions or exceeded absences.

PROCEDURES

Data collection took place 2015 and 2017. The participants had assigned the informed consent form (TCLE) approved by the Ethical Research Committee of UFJF (nº 1.360.973). Studies 1 and 2 included a pre-treatment evaluation. In Study 1, the evaluation was conducted face-to-face modality, while in Study 2, the entire evaluation was conducted by videoconference. In the last case, the self-guided questionnaires were applied

through Google Forms. All participants received feedback about the evaluation. Based on their clinical case and location, they were referred to other AUD treatment services, whether they did not fulfill the eligibility criteria. The eligible participants were instructed on the treatment process.

The treatment was carried out through Skype or Google Hangouts, once a week, for 60 minutes. As it is online treatment, some agreements were established concerning the contacts outside the session by e-mail or message, absences, delays, criteria for exclusion and referral during the therapy, and the contact of a relative or friend in case of urgent situations.

Study 1 did not involve face-to-face contact between client and therapist after the baseline assessment. Clients were guided by a staff member to the computer room, where all equipment and programs were connected (Gumier, 2019). The treatment material, as tasks and questionnaires (including WAI), were printed and delivered to the client by a staff member or left on the table. In Study 2, the treatment material was sent by e-mail, and the WAI-C was answered through Google Forms. The therapeutic alliance was evaluated in the treatment's beginning, middle, and ending (fourth, eighth, and twelfth sessions). Clients were informed that the therapist did not have access to the answers, to reduce the social desirability. Therapists assessed at the end of the treatment and three months after the treatment ended, with the same measurements.

STATISTICAL ANALYSIS

Data were transferred for the 22 version of Statistical Package for the Social Sciences (SPSS), by pairs. We conducted descriptive analysis, like mean, standard deviation, frequency, and percentage. For inferential analysis, we carried out the t Student test and the Fisher's Exact test.

RESULTS

ADHERENCE, SOCIODEMOGRAPHIC DATA, AND COMPUTER USE

Among the 21 participants, 13 (61.9%) adhered to treatment, and eight (38.1%) did not adhere. The dropout happened, mostly, until de fourth session. In the adherence group, 53.8% of the participants attended the 12 sessions. The sessions means were 11.1 \pm 1.3 (Min.: 8 – Max.: 12). The adherence group was composed of seven (53.8%) clients from CPA and six (46.2) from Informalcool. In the non-adherence group, two (25%) were from CPA, and six (75%) were from Informalcool. The Fisher's Exact test did not find a significant difference in the adherence of these clients, even with face-to-face assessment in the CPA group (p=0.20).

Table 1 shows no significant statistical difference between the groups regarding the sociodemographic data. However, the adherence group had a higher mean and was more divided in terms of education level and socioeconomic class, while the

Table 1. Comparison between the adherence and non-adherence groups about sociodemographic characteristics, computer use and reduction in the number of intragroup doses. Data expressed as frequency (%) and mean \pm SD.

Characteristics	Adherence (N=13)	Non- adherence (N=8)	
Age	43.8 ± 9.6	38.6 ± 9.3	
Sex			
Male	11 (84.6)	7 (87.5)	
Female	2 (15.4)	1 (12.5)	
Schooling			
Until elementary school	5 (38.5)	1 (12.5)	
High school	3 (23.1)	1 (12.5)	
University education	5 (38.5)	6 (75)	
Religion			
Catholic	6 (46.2)	2 (25)	
None	6 (46.2)	6 (46.2)	
Socioeconomic Scale			
В	4 (30.8)	2 (25)	
C	6 (46.2)	5 (62.5)	
Computer use			
Do not use	5(38.5)	1 (12.5)	
Almost every day	6(46.2)	7 (87.5)	
Uso do computador			
Difficulty/Do not use	9 (69.3)	O#	
No difficulty	4(30.8)	8 (100)	
Number of alcohol doses			
Baseline	10.3 ± 4.0	8.8 ± 5.1	
Post-treatment	3.1 ± 3.4*	28+	
Number of days of abstinence			
Baseline	13.6 ± 10.2	15.4 ± 9.1	
Post-treatment	24.8 ± 7.6	26.0+	

⁺ based on just one answer. Unable to perform Student's t test
*differs from the initial assessment by Student's t test, p<0.001
#differs from the non-adherence group to Fisher's exact test, p<0.05

non-adherence group was mostly composed of people with high education levels (75%). Both groups differed about computer use because 69.5% of those who adhere had some or many difficulties, whereas no one reported difficulty in the non-adherence group.

ALCOHOL CONSUMPTION

In the intragroup evaluation, the adherence group reduced the consumption, between the baseline and final assessment, in about seven doses (t(12) = 5.67, p = < 0.001). It was impossible to develop an analysis of the non-adherence group due to the sample loss.

THE THERAPEUTIC ALLIANCE BETWEEN THE GROUPS

Table 2 shows the therapeutic alliance means in the assessments of the therapist (WAI-T) and client (WAI-C) done in the fourth session, that is, at the beginning of the treatment. The therapist means were higher in the adherence group and the differences with the non-adherence group were statistically significant, both in general scale (t(16) = 2.31; p = 0.03) and in goals (t(16) = 2.04; p = 0.06), tasks (t(16) = 2.41; p = 0.03) and bond (t(16) = 2.41; p = 0.03) subscales. The WAI-C scores did not show any result statistically significant between the groups, although there was a tendency of higher means in the adherence group. It was impossible to carry out the eighth and twelfth session analysis due to sample loss in the non-adherence group. Only four participants of the non-adherence group were included since the others dropped out before the fourth session.

THE THERAPEUTIC ALLIANCE IN PSYCHOTHERAPEUTIC PROCESSES

Figure 1 shows the progress of the therapeutic alliance in the treatment, including the fourth, eighth, and twelfth sessions. Only the adherence group was included. The client evaluation (WAI-C) generally shows higher means than the therapists. The therapists' assessment (WAI-T) shows progressive increases in the general scores and the other subscales throughout the psychotherapeutic process. In the client evaluation (WAI-C), there is variability in mean progression among the subscales. The general scale scores increased between the fourth and eighth session and maintained this last mean in the 12th session. The means increase progressively among the fourth, eighth, and 12th sessions in the task subscale. The goals and bond subscale differed from the others. In this way, an increase was found from the fourth to the eighth session and a decrease from the eighth to the 12th session.

DISCUSSION

The present study contributes to the understanding of the therapeutic alliance in videoconference-delivered CBT for alcohol users, especially in the Brazilian population, in which similar investigations were not found. It was possible to observe establishing the alliance and its maintenance throughout the treatment. In addition, the alliance presented a dynamic course, varying throughout the sessions, as is also verified in face-to-face psychotherapy (Garfield, 1995; Horvath, 1994; Leahy, 2008; Luborsky, 1994; Simpson & Reid, 2014).

The group that adhered to treatment had the highest alliance means, indicating that this may be a relevant factor for client engagement in therapy. Although the result found does not allow for assertive conclusions about this relationship, it provides evidence that points to the need for further clarification of the alliance's role in adherence to psychotherapy by video-conference. Beintner et al. (2019) point out that the findings on the relationship between alliance and adherence are still controversial. According to these authors, the results show mostly positive but weak correlations.

For the most part, the abandonment occurred until the fourth session, corresponding to the beginning of the therapy. In face-to-face therapy, some authors point out that the alliance is formed after the third or fourth session (Garfield, 1995; Horvath, 1994; Luborsky, 1994). Therefore, it is possible that ruptures in the alliance in this initial period have been a relevant factor for the abandonment and that it occurs in the same way as in online therapy. It must be considered that only therapists indicated problems in the alliance in the non-adherent group since the WAI-T averages in this group were significantly lower.

The alliance means between the group that adhered, and the group that did not adhere to treatment did not show significant differences from the client's perspective. Clients always evaluated the therapeutic alliance positively, without great

Table 2. Comparison between the adherence and non-adherence groups to the Therapeutic Alliance scores evaluated by the therapist (WAI-T) and client (WAI-C) in the 4^{th} session. Data expressed as mean \pm SD.

WAI - 4 th session	Adherence (N=12)	IC95%	Non-adherence (N=4)	IC95%	p value
WAI-T- General	219.0 ± 26.0*	(203.3 - 26.0)	186.8 ±27.7	(152.4 - 221.2)	0.03
WAI- T- Goals	73.7 ± 10.0*	(63.4 - 76.7)	58.0 ± 12.0	(43.1 - 72.9)	0.05
WAI-T Tasks	74.7 ± 2.8 *	(67.7 - 79.7)	60.6 ±11.5	(46.2 - 74.9)	0.03
WAI-T Bond	$75.2 \pm 6.3*$	(71.4 - 79.0)	68.2 ± 4.6	(62.5 - 73.9)	0.04
WAI- C- General	233.16 ± 12.7	(225.0 - 241.3)	220.50 ± 16.9	(193.6 - 247.4)	0.13
WAI- C- Goals	76.16 ± 7.1	(71.6 - 80.7)	72.50 ± 5.6	(63.6 - 81.4)	0.37
WAI-C- Tasks	80.0 ± 4.5	(77.1 - 82.9)	74.50 ±7.5	(62.5 - 86.4)	0.09
WAI-C- Bond	77 ± 5.6	(72.1 - 79.7)	73.75 ± 6.7	(63.2 - 84.3)	0.35

^{*} differs from the non-adherence group by Student's t test.

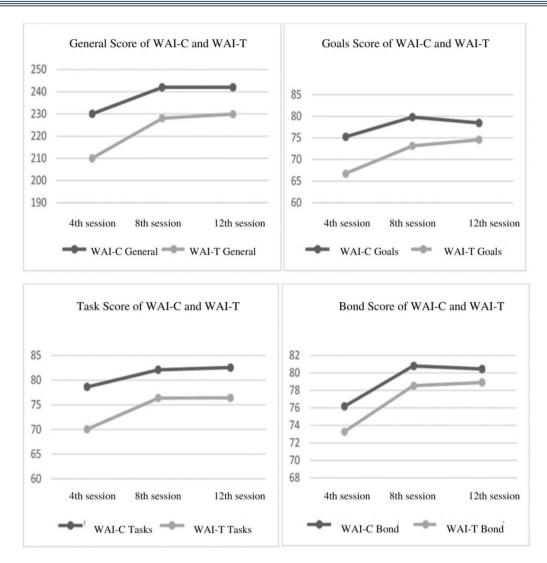


Figure 1. Therapeutic alliance progress in the 4th, 8th and 12th sessions measured by the WAI therapist (WAI-T) and WAI client (WAI-C), in the general scales, objectives, tasks and bond.

variability in their results, which can be observed by the high averages in both groups. These results indicate the possibility of a social desirability effect, although methodological care was taken to control for it. A review by Ribeiro et al. (2019) shows that previous studies demonstrate differences in the assessment of the client's and therapist's alliance, and a lack of consensus on which perspective would be better related to psychotherapeutic outcomes. There is even a tendency to consider an external observer's assessment to be the most sensitive. Similar results were found in the study to evaluate the psychometric properties of the WAI observer version for the Brazilian population (Ribeiro et al., 2021).

The results showing higher average ratings of the alliance from the client's perspective are congruent with other studies in this area (Simpson et al., 2020). Richards et al. (2016) found better alliance evaluation by the client than by the therapist in a treatment based on an online acceptance and commitment therapy (ACT) program in conjunction with traditional therapy in

a face-to-face format. Literature reviews focused on videoconferencing psychotherapy found similar results, in other words, therapists rated the alliance lower than clients (Simpson & Reid, 2014; Steel et al., 2011). The main explanation for this difference concerns that the therapist understands the therapeutic alliance from a theoretical-practical point of view. Another justification highlighted by Lopez et al. (2019) refers to the therapists feeling unprepared for the online context. Thus, they tend to feel unsure about modifying behavior to satisfactorily convey the messages of support, reception, and compassion. The main challenge reported refers, for example, to impaired eye contact with webcam use (Aerts & van Dam, 2018; Lopez et al., 2019).

Regarding the group that adhered to videoconference therapy, the mean scores of both the client and the therapist on the fourth, eighth, and 12th sessions were high. The averages scores of the general WAI and the subscales in this study ranged from 5.85 to 6.66. The findings converge with both the results of the Brazilian study by Prado and Mayer (2006), with average

WAI scores between 5.40 and 5.88 in internet-based therapy. The data also agrees with the data presented in the literature on the alliance evaluation in the face-to-face modality, in which values range from 5.16 to 6.0 (Ball, 2007; Gibbons et al., 2010; Kan et al., 2014).

It is worth mentioning the significant reduction in the number of alcoholic drinks in the group that adhered to treatment, and higher average alliance scores. This result raises some important questions. First, the possibility of achieving psychotherapeutic results in CBT by videoconferencing for AUD. Second, this result may be related to the therapeutic alliance, as indicated by some studies (Alfonsson et al., 2016; Andersson et al., 2012; Berger, 2017; Singulane & Sartes, 2017; Sucala et al., 2012). Provoost et al. (2020) state that online interventions guided by a therapist are more effective in reducing symptoms, having a positive effect on adherence rates when compared to self-guided interventions.

The characteristics of the participants in the adherence and non-adherence groups did not differ significantly. Frequency of computer use and degree of difficulty were not factors that significantly affected treatment engagement. Members of both groups reported using the computer every day or almost every day. All individuals in the non-adherence group reported having no difficulty using the computer, while some participants in the adherence group claimed to have some difficulty. In the latter case, having some difficulty handling the computer was not a factor that prevented participation and adherence to treatment. In the same way, the trend toward higher education and younger age in the non-adherence group seems not to have influenced the alliance and treatment adherence process. An important result was about the face-to-face evaluation of the CPA participants and the non-face-to-face assessment of the Informalcool participants. This study found no difference between participants at the two sites regarding adherence. However, due to the small sample size, these results deserve further exploration in other studies to assess the effect of contact on treatment and adherence outcomes.

The results presented should be considered in light of their limitations. The small sample size impacts the possibility of generalizing the findings, especially in the group that did not adhere to treatment. In addition, the Brazilian versions of the WAI-C and WAI-T for internet use are still in the process of analyzing evidence of analysis. Initial results can be seen in Ribeiro et al. (2021) and Ribeiro (2017). Another limitation is that the analyses are based only on videoconference interventions, and they are not compared with other telepsychotherapy modalities of face-to-face psychotherapy.

It is important to emphasize that the severity of the disorder (not evaluated in this study), as in the case of alcohol dependence, may affect the individual's history of social difficulties and the bond establishment and may have an influence on the formation and maintenance of the alliance (Cook & Doyle,

2002). Therefore, it is recommended that future research include an analysis of addiction severity and adopt other measures of adherence to better understand clients' engagement in treatment and reasons for dropout.

CONCLUSIONS

During the COVID-19 pandemic, the mental health cases have been worsened, especially among those who had any disease. In addition, there are few possibilities of treatment due to the need for social isolation measures to ensure control of contagion. In this regard, Wind et al. (2020) rightly state that COVID-19 represented a turning point for eHealth, as it gave no other choice but to accept it as an alternative treatment. With the mass migration of therapists to the online context, there is an urgent demand for studies that investigate the particularities of telepsychotherapy, especially about the therapeutic alliance.

Therefore, the present study represents an effort to guide the understanding of the therapeutic alliance in online CBT, particularly in Brazil, where the research in this field is incipient. The results showed initial evidence about the alliance establishment in CBT by videoconference, pointing out that it is maintained throughout the treatment and the possibility of reducing alcohol doses in the group that adhered to the treatment. These results suggest that psychotherapy by videoconference can be an alternative modality for AUD treatment, an important outcome in the Brazilian scenario where the provision of interventions for this population is insufficient.

REFERENCES

- Aerts, J. E. M., & van Dam, A. (2018). Blended e-health in cognitive behavioural therapy: Usage intensity, attitude and therapeutic alliance in clinical practice. *Psychology*, 9(10), 2422-2435. https://www.doi.org/10.4236/psych.2018.910139
- Alfonsson, S., Olsson, E., & Hursti, T. (2016). Motivation and treatment credibility predict dropout, treatment adherence, and clinical outcomes in an internet-based cognitive behavioral relaxation program: a randomized controlled trial. *Journal of Medical Internet Research*, 18(3), e52. https://www.doi.org/10.2196/jmir.5352
- American Psychiatric Association (APA). (2002). Manual diagnóstico e estatístico de transtornos mentais: DSM-IV (4. ed.). Artmed.
- Amorim, P. (2000). Mini International Neuropsychiatric Interview (MINI): Validação de entrevista breve para diagnóstico de transtornos mentais. *Revista Brasileira de Psiquiatria, 22*(3), 106-115. https://doi.org/10.1590/S1516-44462000000300003
- Andersson, G. (2016). Internet-delivered psychological treatments. *Annual Review of Clinical Psychology, 12*, 157-179. https://www.doi.org/10.1146/annurev-clinpsy-021815-093006
- Andersson, G., Paxling, B., Wiwe, M., Vernmark, K., Felix, C. B., Lundborg, L., ... Carlbring, P. (2012). Therapeutic alliance in guided internet-delivered cognitive behavioural treatment of depression, generalized anxiety disorder and social anxiety disorder. *Behaviour Research and Therapy*, 50(9), 544-550. https://www.doi.org/10.1016/j.brat.2012.05.003

- Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D., ... Thorp, S. R. (2012). Videoconferencing psychotherapy: A systematic review. *Psychological Services*, *9*(2), 111-131. https://www.doi.org/10.1037/a0027924
- Ball, S. A. (2007). Comparing individual therapies for personality disordered opioid dependent patients. *Journal of Personality Disorders*, 21(3), 305-321. https://www.doi.org/10.1521/pedi.2007.21.3.305
- Ballegooijen, W., Cuijpers, P., van Straten, A., Karyotaki, E., Andersson, G., Smit, J. H., & Riper, H. (2014). Adherence to Internet-based and face-to-face cognitive behavioural therapy for depression: A meta-analysis. *PLoS One*, *9*(7), e100674. https://www.doi.org/10.1371/journal.pone.0100674
- Bastos, F. I. P. M., Vasconcellos, M. T. L., De Boni, R. B., Reis, N. B., & Coutinho, C. F. S. (2017). *III Levantamento Nacional sobre o uso de drogas pela população brasileira*. Fundação Oswaldo Cruz.
- Beintner, I., Görlich, D., Berger, T., Ebert, D. D., Zeiler, M., Camarano, R. H., ... ICare Consortium. (2019). Interrelations between participant and intervention characteristics, process variables and outcomes in online interventions: A protocol for overarching analyses within and across seven clinical trials in ICare. *Internet Interventions*, *16*, 86-97. https://doi.org/10.1016/j.invent.2018.05.001
- Berger, T. (2017). The therapeutic alliance in internet interventions: A narrative review and suggestions for future research. *Psychotherapy Research*, *27*(5), 511-524. https://doi.org/10.1016/j.invent.2018.05.00110.1080/10503307.2015.1119908
- Blease, C. R., & Kelley, J. M. (2018). Does disclosure about the common factors affect laypersons' opinions about how cognitive behavioral psychotherapy works?. *Frontiers in Psychology, 9,* 2635. https://doi.org/10.3389/fpsyg.2018.02635
- 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
- Bouchard, S., Payeur, R., Rivard, V., Allard, M., Paquin, B., Renaud, P., & Goyer, L. (2000). Cognitive behavior therapy for panic disorder with agoraphobia in videoconference: Preliminary results. *CyberPsychology & Behavior*, *3*(6), 999-1007. https://doi.org/10.1089/109493100452264
- Cançado, M. F. L. (2017). Psicoterapia por internet para dependentes de álcool: Comparação dos efeitos sobre homens e mulheres que frequentam um site especializado [Dissertação de mestrado]. Universidade Federal de Juiz de Fora.
- Carlbring, P., Andersson, G., Cuijpers, P., Riper, H., & Hedman-Lagerlöf, E. (2018). Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: An updated systematic review and meta-analysis. *Cognitive Behaviour Therapy*, 47(1), 1-18. https://doi.org/10.1080/16506073.2017.1401115
- Christensen, H., Griffiths, K. M., & Farrer, L. (2009). Adherence in internet interventions for anxiety and depression. *Journal of Medical Internet Research*, 11(2), e13. https://doi.org/10.2196/jmir.1194
- Connery, H. S., McHugh, R. K., Reilly, M., Shin, S., & Greenfield, S. F. (2020). Substance use disorders in global mental health delivery: Epidemiology, treatment gap, and implementation of evidence-based treatments. *Harvard Review of Psychiatry*, 28(5), 316-327. https://doi.org/10.1097/HRP.000000000000271
- Cook, J. E., & Doyle, C. (2002). Working alliance in online therapy as compared to face-to-face therapy: Preliminary results. *Cyberpsychology & Behavior*, *5*(2), 95-105. https://doi.org/10.1089/109493102753770480

- D'Aniello, C., & Tambling, R. (2019). The role of therapy productiveness on MFT clients' intentions to persist in therapy. *The American Journal of Family Therapy, 47*(1), 37-51. https://doi.org/10.1080/0192618 7.2019.1586010
- Dearing, R. L., Barrick, C., Dermen, K. H., & Walitzer, K. S. (2005). Indicators of client engagement: Influences on alcohol treatment satisfaction and outcomes. *Psychology of Addictive Behaviors, 19*(1), 71-78. https://doi.org/10.1037/0893-164X.19.1.71
- DiClemente, R. J., Capasso, A., Ali, S. H., Jones, A. M., Foreman, J., & Tozan, Y. (2020). Knowledge, beliefs, mental health, substance use, and behaviors related to the COVID-19 pandemic among U.S. adults: A national online survey. *Journal of Public Health*, 1-11. https://doi.org/10.1007/s10389-021-01564-4
- Feinstein, R., Heiman, N., & Yager, J. (2015). Common factors affecting psychotherapy outcomes. *Journal of Psychiatric Practice*, 21(3), 180-189. https://doi.org/10.1097/PRA.000000000000064
- Fundação Oswaldo Cruz (Fiocruz). (2020). Resultados da *ConVid: Pesquisa de comportamentos*. Fiocruz. https://convid.fiocruz.br/index.php?pag=bebiba_alcoolica
- Garfield, S. L. (1995). The therapy client-patient. In S. L. Garfield (Ed.), *Psychotherapy: An eclectic and integrative approach* (2nd ed., pp. 39-65). Wiley & Sons.
- Gibbons, C. J., Nich, C., Steinberg, K., Roffman, R. A., Corvino, J., Babor, T. F., & Carroll, K. M. (2010). Treatment process, alliance and outcome in brief versus extended treatments for marijuana dependence. Addiction, 105(10), 1799-1808. https://doi.org/10.1111/j.1360-0443.2010.03047.x
- Gülüm, I. V., Soygüt, G., & Safran, J. D. (2016). A comparison of pre-dropout and temporary rupture sessions in psychotherapy. *Psychotherapy Research*, 28(5), 685-707. https://doi.org/10.1080/10503307.201 6.1246765
- Gumier, A. B. (2019). Terapia cognitivo-comportamental por internet para dependentes de álcool: Viabilidade e estudo piloto de um ensaio clínico randomizado [Tese de doutorado não-publicada]. Universidade Federal de Juiz de Fora.
- Hargreaves, A., Dillon, R., Castorina, M., Furey, E., Walsh, J., Fitzmaurice, B., ... Donohoe, G. (2018). Predictors of adherence to low support, computerised, cognitive remediation training in psychosis. *Psychosis*, 10(4), 298-306. https://doi.org/10.1080/17522439.2018.1522542
- Horvath, A. O. (1994). Empirical validation of Bordin'spantheorical model of the alliance: The working alliance inventory perspective. In A. O. Horvath, & L. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 85-108). John Wiley & Sons.
- Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, *36*(2), 223-233. https://psycnet.apa.org/doi/10.1037/0022-0167.36.2.223
- Jemberie, W. B., Williams, J. S., Eriksson, M., Grönlund, A., Ng, N., Nilsson, M. B., ... Lundgren, L. M. (2020). Substance use disorders and COVID-19: Multi-faceted problems which require multi-pronged solutions. *Perspective*, 11(114), 1-8. https://doi.org/10.3389/fpsyt.2020.00714
- Johansson, M., Sinadinovic, K., Hammarberg, A., Sundström, C., Hermansson, U., Andreasson, S., & Berman, A. H. (2016). Web-based self-help for problematic alcohol use: A large naturalistic study. *International Journal of Behavioral Medicine*, 24(5), 749-759. https://doi.org/10.1007/s12529-016-9618-z

- Josephine, K., Josefine, L., Philipp, D., David, E., & Harald, B. (2017). Internet-and mobile-based depression interventions for people with diagnosed depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, 223, 28-40. https://doi.org/10.1016/j. iad.2017.07.021
- Kadden, R., Carroll, K., Donovan, D., Cooney, N., Monti, P., Abrams, D., ... Hester, R. (1995). Cognitive-behavioral coping skills therapy manual: a clinical research guide for therapists treating individuals with alcohol abuse and dependence. National Institute on Alcohol Abuse and Alcoholism.
- Kan, L. Y., Henderson, C. E., von Sternberg, K., & Wang, W. (2014). Does change in alliance impact alcohol treatment outcomes? Substance Abuse, 35(1), 37-44. https://doi.org/10.1080/08897077.2013.79 2761
- Karyotaki, E., Ebert, D. D., Donkin, L., Riper, H., Twisk, J., Burger, S., ... Cuijpers, P. (2018). Do guided internet-based interventions result in clinically relevant changes for patients with depression? An individual participant data meta-analysis. *Clinical Psychology Review, 63*, 80-92. https://doi.org/10.1016/j.cpr.2018.06.007
- Keleher, B., Oakman, J. M., Capobianco, K., & Mittelstaedt, W. H. (2017). Basic psychological needs satisfaction, working alliance, and early termination in psychotherapy. *Counselling Psychology Quarterly*, 32(1), 64-80. https://doi.org/10.1080/09515070.2017.1367271
- King, S. C., Richner, K. A., Tuliao, A. P., Kennedy, J. L., & McChargue, D. E. (2019). A comparison between telehealth and face-to-face delivery of a brief alcohol intervention for college students. *Substance Abuse*, 41(4), 501-509. https://doi.org/10.1080/08897077.2019.1675116
- Kruse, C. S., Lee, K., Watson, J. B., Lobo, L. G., Stoppelmoor, A. G., & Oyibo, S. E. (2020). Measures of effectiveness, efficiency, and quality of telemedicine in the management of alcohol abuse, addiction, and rehabilitation: Systematic review. *Journal of Medical Internet research*, 22(1), e13252. https://doi.org/10.2196/13252
- Leahy, R. L. (2008). The therapeutic relationship in cognitive-behavioral therapy. *Behavioural and Cognitive Psychotherapy*, *36*(6), 769-777. https://doi.org/10.1017/S1352465808004852
- Leibert, T. W., & Dunne-Bryant, A. (2015). Do Common factors account for counseling outcome?. *Journal of Counseling & Development,* 93(2), 225-235. https://doi.org/10.1002/j.1556-6676.2015.00198.x
- Lima, C. T., Freire, A. C., Silva, A. P., Teixeira, R. M., Farrell, M., & Prince, M. (2005). Concurrent and construct validity of the audit in an urban Brazilian sample. *Alcohol and Alcoholism*, 40(6), 584-589. http://dx.doi.org/10.1093/alcalc/agh202
- Lopez, A., Schwenk, S., Schneck, C. D., Griffin, R. J., & Mishkind, M. C. (2019). Technology-based mental health treatment and the impact on the therapeutic alliance. *Current Psychiatry Reports*, 21(8), 76. https://doi.org/10.1007/s11920-019-1055-7
- Luborsky, L. (1994). Therapeutic alliances as predictors of psychotherapy outcomes: Factors explaining the predictive success. In A. O. Horvath, & L. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 39-50). John Wiley & Sons.
- Magill, M., & Longabaugh, R. (2013). Efficacy combined with specified ingredients: A new direction for empirically-supported addiction treatment. Addiction, 108(5), 874-881. https://doi.org/10.1111/ add.12013

- Norwood, C., Moghaddam, N. G., Malins, S., & Sabin-Farrell, R. (2018). Working alliance and outcome effectiveness in videoconferencing psychotherapy: A systematic review and noninferiority meta-analysis. *Clinical Psychology Psychotherapy*, 25(6), 797-808. https://doi.org/10.1002/cpp.2315
- Prado, O. Z., & Meyer, S. B. (2006). Avaliação da relação terapêutica na terapia assíncrona via internet. *Psicologia em Estudo, 11*(2), 247-257. https://doi.org/10.1590/S1413-73722006000200003
- Provoost, S., Kleiboer, A., Ornelas, J., Bosse, T., Ruwaard, J., Rocha, A., ... Riper, H. (2020). Improving adherence to an online intervention for low mood with a virtual coach: Study protocol of a pilot randomized controlled trial. *Trials*, 21(1), 860. https://doi.org/10.1186/ s13063-020-04777-2
- Ribeiro, N. S. (2017). Working Alliance Inventory Short Revised Observer (WAI-SR-O): Adaptação transcultural e análise das propriedades psicométricas da versão brasileira para usuários de álcool [Dissertação de mestrado]. https://repositorio.ufjf.br/jspui/handle/ufjf/6505
- Ribeiro, N. S., Colugnati, F. A. B., Kazantzis, N., & Sartes, L. M. A. (2021). Observing the working alliance in videoconferencing psychotherapy for alcohol addiction: reliability and validity of the Working Alliance Inventory Short Revised Observer (WAI-SR-O). Frontiers in Psychology, 12, 647814. https://doi.org/10.3389/fpsyg.2021.647814
- Ribeiro, N. S., Torres, A. P. F., Pedrosa, C. A., Silveira, J. D. F., & Sartes, L. M. A. (2019). Caracterização dos estudos sobre medidas de aliança terapêutica: Revisão da literatura. *Contextos Clínicos, 12*(1), 303-341. https://doi.org/10.4013/ctc.2019.121.13
- Richards, P., Simpson, S., Bastiampillai, T., Pietrabissa, G., & Castelnuovo, G. (2016). The impact of technology on therapeutic alliance and engagement in psychotherapy: The therapist's perspective. *Clinical Psychologist*, 22(2), 171-181. https://doi.org/10.1111/cp.12102
- Roos, J., & Werbart A. (2013). Therapist and relationship factors influencing dropout from individual psychotherapy: A literature review. *Psychotherapy Research, 23*(4), 394-418. https://doi.org/10.1080/10503307.2013.775528
- Simblett, S., Birch, J., Matcham, F., Yaguez, L., & Morris, R. (2017). A systematic review and meta-analysis of e-mental health interventions to treat symptoms of posttraumatic stress. *JMIR Mental Health*, 4(2), 1-16. https://doi.org/10.2196/mental.5558
- Simpson, S. G., & Reid, C. L. (2014). Therapeutic alliance in videoconferencing psychotherapy: A review. *Australian Journal of Rural Health*, 22(6), 280-299. https://doi.org/10.1111/ajr.12149
- Simpson, S., Richardson, L., Pietrabissa, G., Castelnuovo, G., & Reid, C. (2020). Videotherapy and therapeutic alliance in the age of CO-VID-19. Clinical Psychology & Psychotherapy, 28(2), 409-421. https:// doi.org/10.1002/cpp.2521
- Singulane, B. A. R., & Sartes, L. M. A. (2017). Aliança terapêutica nas terapias cognitivo- comportamentais por videoconferência: Uma revisão da literatura. *Psicologia: Ciência e Profissão*, 37(3), 784-798. https://doi.org/10.1590/1982-3703000832016
- Steel, K., Cox, D., & Garry, H. (2011). Therapeutic videoconferencing interventions for the treatment of long-term conditions. *Journal of Telemedicine and Telecare*, 17(3), 109-117. https://doi.org/10.1258/jtt.2010.100318

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- Strauss, J. L., Guerra, V. S., Marx, C. E., Eggleston, A. M., & Calhoun, P. S. (2010). Adherence and psychotherapy. In H. Bosworth (Ed.), Improving patient treatment adherence (pp. 215-240). Springer New York.
- Sucala, M., Schnur, J. B., Constantino, M. J., Miller, S. J., Brackman, E. H., & Montgomery, G. H. (2012). The therapeutic relationship in e-therapy for mental health: A systematic review. *Journal of Medical Internet Research*, 14(4), e110. https://doi.org/10.2196/jmir.2084
- Watts, S., Marchand, A., Bouchard, S., Gosselin, P., Langlois, F., Belleville, G., & Dugas, M. J. (2020). Telepsychotherapy for generalized anxiety disorder: Impact on the working alliance. *Journal of Psychotherapy Integration*, 30(2), 208-225. https://doi.org/10.1037/int0000223
- Wind, T. R., Rijkeboer, M., Andersson, G., & Riper, H. (2020). The COVID-19 pandemic: The 'black swan'for mental health care and a turning point for e-health. *Internet Interventions*, 20, 100317. https://doi.org/10.1016/j.invent.2020.100317
- World Health Organization (WHO). (2018). Global status report on alcohol and health 2018: Executive summary. https://apps.who.int/iris/handle/10665/312318