Cognitive Therapy and Research (2023) 47:587–597
https://doi.org/10.1007/s10608-023-10383-8

ORIGINAL ARTICLE

The Relationship Between Working Alliance and Treatment Outcome in an Internet-Based Grief Therapy for People Bereaved by Suicide

Viktoria Schmidt[1] · **Julia Treml**[1] · **Julia Deller**[1] · **Anette Kersting**[1]

Accepted: 28 April 2023 / Published online: 9 May 2023

Abstract

Background Working alliance is an important component in the therapy process, however its' role in bereavement interventions has rarely been studied. This study investigates the relationship between working alliance and treatment outcome, the change of working alliance throughout therapy and patient characteristics as predictors of working alliance.

Methods Data from a randomized controlled trial including 44 participants was used. Patient characteristics were assessed at baseline and working alliance was assessed after two, four, six, eight and ten sessions. A linear mixed model, multiple linear regression and best subset regression were conducted.

Results Working alliance changed significantly during therapy ($\beta = 1.46$, $SE = 0.27$, $t(162) = 5.38$, $p < .001$). Early working alliance predicted prolonged grief symptoms, when controlled for baseline scores of grief ($\beta = -.27$, $p = .023$). Moreover, self-efficacy ($\beta = .47$, $p < .001$) and need for social support ($\beta = -.38$, $p = .010$) predicted early working alliance.

Conclusions This study shows the relevance of establishing early working alliance in the therapeutic process. Attention should be paid to the initial self-efficacy and need for social support of patients, as it influences the experience of working alliance. To address individual working alliance patterns and characteristics in therapy, further research is needed.

Keywords Working alliance · Prolonged grief · Suicide · Treatment outcome · Internet-based therapy · CBT

Suicide is one of the most common causes of death (WHO, 2020), affecting in average 60 people for each suicide (Berman, 2011). While many bereaved adapt to the loss, 10% are not able to cope with the loss and develop a persistent grief response (Lundorff et al., 2017). In bereaved experiencing losses due to unnatural deaths such as suicide, this prevalence rate is even higher at 49% (Djelantik et al., 2020). This persistent grief response is called Prolonged Grief Disorder (PGD) in the newest 11th International Classification of Diseases (ICD-11, WHO, 2018). Core symptoms include persistent yearning or longing for the deceased and functional impairment e.g., in occupational or social areas, lasting for at least six months.

For the treatment of prolonged grief after a loss, cognitive-behavioural therapy has proven to be effective (Boelen & Kolchinska, 2022). However, fear of stigmatization and poor availability may prevent bereaved from getting treatment (Andriessen et al., 2019). Therefore, Internet-based interventions offer an easily accessible and effective alternative to conventional face-to-face therapies (Eisma, 2018; Lange et al., 2000). Especially internet-based cognitive behavioral therapy (ICBT) has shown to achieve medium to large effect sizes in the treatment of PGD (Wagner et al., 2020). Nevertheless, a substantial number of patients does not show clinically significant change. Studies for the treatment of prolonged grief in ICBT show a clinically significant change in only 37–47% of patients (Eisma et al., 2015; Kaiser et al., 2022; Treml et al., 2021). To provide insights into treatment mechanisms and improve future interventions, it is necessary to identify factors influencing symptom change.

One of the most important factors influencing therapy outcome is working alliance (Notsu et al., 2022). Working alliance can be defined as the "the achievement of a collaborative stance in therapy" (Horvath et al., 2011, p. 10) and consists of three factors: the agreement of (a) tasks, (b) goals, and (c) the experience of the bond between patient and therapist (Bordin, 1994). Research has found a small, but robust effect of $r = 0.278$ of working alliance on

✉ Viktoria Schmidt
Viktoria.Schmidt@medizin.uni-leipzig.de

[1] Department of Psychosomatic Medicine and Psychotherapy, University of Leipzig, Semmelweisstraße 10, 04103 Leipzig, Germany

treatment outcome in face-to-face therapies (Flückiger et al., 2018). Especially the early treatment phase is crucial for treatment and thus early working alliance has been shown to predict positive treatment outcome (Flückiger et al., 2020b). Working alliance scores in internet-based interventions have also been found to be similar to face-to-face approaches ($r = 0.203$ to 0.275; Flückiger et al., 2018; Kaiser et al., 2021), and independent of the form of the internet intervention (Berger, 2017). Therefore, Berger (2017) suggested that a positive working alliance can be accomplished in various Internet-based interventions, including ICBT. Working alliance appears to influence treatment beyond different intake and process adjustments, forms of treatment, study conditions and countries (Flückiger, 2018; Flückiger et al., 2018, 2020a).

Nevertheless, studies investigating working alliance in bereavement interventions are scarce. However, due to the inclusion of PGD in the current diagnostic manuals (American Psychiatric Association, 2022; WHO, 2018) and its adverse health effects as well as the increased risk for suicide (Latham & Prigerson, 2004; Simon, 2013), it is particularly important to examine influencing factors such as working alliance on grief-specific bereavement interventions. To our knowledge, only four studies on working alliance in bereavement interventions exist. In face-to-face therapies, results regarding the relationship between working alliance and grief symptoms show different results depending on the treatment approach, as an association has been found in complicated grief treatment, but not in interpersonal psychotherapy or pharmacotherapy (Glickman et al., 2018; Goetter et al., 2018). Only two studies to date explored the relationship between working alliance and treatment outcome for PGD in an Internet-based intervention, while some found a significant relationship and others did not (Hiemeyer et al., 2021; Kaiser et al., 2023). Moreover, there is no study exploring working alliance in a bereavement intervention for people bereaved by suicide. However, grief experiences of people bereaved by suicide are unique and differ from other bereavement groups, as grief after suicide is considered "different in both quality and quantity than grief after other modes of death "(Jordan, 2008, 2020, p. 6; Young et al., 2012). As studies regarding the effect of working alliance in bereavement interventions are scarce and inconclusive, and no study for people bereaved by suicide in this area of research exists, more studies are necessary.

Furthermore, there is only one study exploring the change of working alliance throughout therapy in a bereavement intervention, finding a significant increase (Hiemeyer et al., 2021). Results regarding the change of working alliance throughout therapy in interventions that are not bereavement specific are inconsistent. Studies demonstrated a consistency, increase or other different change patterns of working alliance, e.g., a quadratic pattern (Hersoug et al., 2010; Jasper et al., 2014; Lin et al., 2023; Luo et al., 2022; Zilcha-Mano & Errázuriz, 2017), indicating a need for further studies.

In order to better understand working alliance in a therapeutic context, several studies investigated the role of influencing factors on working alliance. For example, therapist effects such as the patient-therapist ratio has been found to moderate the relationship between working alliance and treatment outcome (Del Re et al., 2021; Flückiger, 2018). Furthermore, sociocultural variables like substance abuse have been found to influence the level of working alliance (Flückiger, 2018). Moreover, reciprocal effects between working alliance and symptoms have been found, that seem to influence ratings of alliance and symptoms in following sessions (Flückiger et al., 2020b). Session-by-session measured variables have also been investigated and found to predict working alliance at the next session, e.g., positive emotions (Notsu et al., 2022). Flückiger et al. (2020a) report that there is a variety of intake variables examined in the literature, such as self-efficacy, social support or attachment. Additionally, working alliance seems to be associated with variables like self-esteem or sleep (Robinson, 2021; Shattock et al., 2018). However, studies on intake variables in bereavement interventions are scarce and some potential influencing variables have not yet been examined. For example, the relationship between stigma of suicide survivors and working alliance has not been investigated in the existing literature yet. Nevertheless, studies have shown that bereaved by suicide experience more shame and stigmatization in comparison to other bereavement groups (Sveen & Walby, 2008). Because perceived stigma of people bereaved by suicide may prevent them from seeking help and may result in a suicide risk among them (Carpiniello & Pinna, 2017), it is important to examine this specific relationship. Similarly, while the relationship with the deceased seems to influence treatment outcome (Rheingold et al., 2015), its influence on the experience of working alliance has not yet been investigated.

To address the aforementioned gaps in the literature, this study aims to investigate working alliance in an Internet-based bereavement intervention in people bereaved by suicide. Specifically, the research aims were to examine:

(1) The change of working alliance
(2) The relationship between early working alliance and therapy outcome
(3) Predictors of early working alliance

In an Internet-based bereavement intervention for people bereaved by suicide. Therefore, secondary exploratory analyses were conducted.

Method

Procedure

The current study is a secondary analysis of data from a randomized controlled trial (clinical trial registration number: DRKS00025009) on the effectiveness of an Internet-based cognitive-behavioural grief therapy (ICBGT).

Because the intervention group (IG) and the waitlist-control group (WCG) obtained the same intervention (WCG after a waiting period), both groups were combined and analysed together.

Participants

This study was carried out according to the Helsinki Statement and has been approved by the Ethics Committee of the Medical Faculty of the University of Leipzig (reference number: 319-14-06,102,014). The recruitment period lasted from July 2015 to March 2017 and all participants consented in writing. Included were German speaking people bereaved by suicide who were at least 18 years old, had access to the Internet and met the PGD-criteria according to Prigerson et al. (2009). PGD was assessed with the German version (Pfoh & Rosner, 2014) of the PG-13 (Prigerson et al., 2009). Because initial PGD-criteria according to Prigerson et al. (2009) do not include all criteria for PGD defined in the newest 11th revision of the International Classification of Diseases (ICD-11, WHO, 2018) and because no measurement tool for PGD according to ICD-11 was available at the time, the term PGD *symptoms* will be used throughout this manuscript.

Exclusion criteria were current psychotherapy, past psychotic or dissociative symptoms (measured with the Brief Symptom Inventory, Derogatis, 1993), acute suicidal ideation (measured with the Yale Evaluation Scale, Latham & Prigerson, 2004), change in psychopharmacological treatment within the last six weeks and severe dependence or substance abuse disorder (alcohol and drug consume questions). For recruitment, information about the study (including a study link) were posted on social media platforms, psychology web pages and blogs. Flyers and contact information with a study link were sent to various clinics, support groups, insurances, and healthcare practices. To participate, potential participants had to fill out an online questionnaire, followed by a telephone interview assessing PGD symptoms to check for inclusion and exclusion criteria.

For the study, 129 participants were screened and 59 were randomized (excluded were: 10 for not meeting PGD criteria or time criterion, 26 had current psychotherapy, 8 were acute suicidal, 3 had a major depression, 6 had a substance abuse disorder, 2 had changes in their medication, 18 were non-responsive or decided not to participate, 2 were not randomized due to late study enrollment; with some participants meeting more than one exclusion criteria). Of these, 49 participants completed the intervention and provided a post-test (1 dropout after randomization prior to the waiting period, 1 dropout during the waiting period, 4 dropouts during the intervention, 4 dropouts after completing the intervention/non-responsive at post-test or incomplete post-test). Additionally, participant's working alliance was measured five times throughout the therapy (after sessions 2, 4, 6, 8 and 10). In line with previous studies (e.g., Beierl et al., 2021), early working alliance (in this study after session 2) was considered for the analysis of the influence of working alliance on therapy outcome. Of the 49 participants completing the post-test, five participants did not fill out the working alliance questionnaire after session 2, yielding a final dataset of N = 44.

Measures

Working alliance was assessed using the Working Alliance Inventory-short form, which can be used for both patients and therapists (WAI-S, Tracey & Kokotovic, 1989). Authors showed good reliability and validity of the scale, with the overall sum score potentially being the most valid measure (Tracey & Kokotovic, 1989). Participants are asked about different aspects of working alliance, e.g., the trust and agreement between therapist and client (Tracey & Kokotovic, 1989). Twelve items can be answered on a 7-point Likert-type scale (1 = never, 7 = always). The sum of all items yields a total score which can range from 12 to 84. Higher scores indicate a better working alliance. Moreover, items can be added to obtain scores for the subscales Tasks, Bond and Goals. The subscales describe patients' rating of the emotional bond with the therapist (Bond subscale), as well as the agreement on therapeutic goals (Goals subscale) and tasks (Tasks subscale). The internal consistency of the total scale ranged from acceptable to good for all measurement points in this study ($\alpha = 0.71$ after session 2, 0.76 after session 4, 0.74 after session 6, 0.80 after session 8, 0.85 after post-test).

Severity of grief symptoms was assessed using the Inventory of Complicated Grief (ICG, Prigerson et al., 1995). It measures maladaptive grief reactions of bereaved, e.g. not accepting the death, feeling bitter or avoiding reminders of the deceased (Prigerson et al., 1995). Authors have shown the questionnaire to be valid and reliable. It consists of 19 items which can be rated on a 5-point Likert scale (0 = never, 4 = always). Items can be added to yield a total sum score and a higher score represents a higher grief symptom severity. A cut-off score of 25 implies PGD symptoms.

Cronbach's Alpha at post-intervention was excellent in the present study (α = 0.91).

Several predictor variables were assessed before the start of the intervention. Self-efficacy describes an overall optimistic self-belief, e.g., the ability to find a solution for every problem, and was measured with the General Self-Efficacy Scale (Jerusalem & Schwarzer, 2003). Authors have shown the questionnaire to be valid and reliable. Ten items can be answered on a 4-points Likert-scale (1 = strongly disagree; 4 = strongly agree). A higher sum score indicates higher self-efficacy. In this study, the internal consistency was good (α = 0.89).

Stigma of suicide survivors was assessed with the subscale "Stigma of Suicide Survivor" of the Stigma of Suicide and Suicide Survivor Scale (Scocco et al., 2012). Authors have shown the questionnaire to be valid and reliable. The scale measures the extent to which bereaved people believe that others have negative perceptions about people bereaved by suicide, such as thinking less of them or viewing them as less trustworthy. The subscale consists of twelve items, which can be rated on a 4-point Likert-scale (1 = strongly disagree; 4 = strongly agree). A higher total score indicates more perceived stigmatization. The internal consistency for the subscale in the present study was excellent (α = 0.92).

Self-esteem describes the global assessment of one's own self and was measured using the revised Rosenberg Self-Esteem Scale (von Collani & Herzberg, 2003). Participants are asked to rate positive or negative perceptions of themselves, such as having a number of good qualities or being proud of oneself. The scale contains 10 items which can be answered on a 4-point Likert-scale (0 = strongly disagree; 3 = strongly agree). A higher overall score implies higher self-esteem. Internal consistency for this scale was excellent in this study (α = 0.92).

Sleep quality was measured with the Pittsburgh Sleep Quality Index (Backhaus & Riemann, 1996). Participants are asked about their sleep quality within the last 4 weeks. The scale contains 19 items, which can be further assigned to seven groups, as well as an overall score. The seven groups are: subjective sleep quality, sleep latency, sleep duration, sleep efficiency, sleep disorders, sleeping pill consumption and daytime sleepiness. A lower score implies better sleep quality. Cronbach's Alpha was good in this study (α = 0.82).

Social support was measured using the Berlin Social Support Scales (Schulz & Schwarzer, 2003). This scale contains five subscales, describing perceived and received social support, need for social support, social support seeking and satisfaction with social support. For example, participants are asked about the importance of having someone to listen to them or seeking conversations with others when having problems. The scale contains 32 items with a 4-point Likert-scale (1 = strongly disagree; 4 = strongly agree). A higher score demonstrates a higher social support in the respective subscale. Internal consistency for the subscales was good–excellent (α = 0.84–0.94).

Relationship quality with the deceased was assessed with the subscale "conflicts" in the Quality of relationship inventory (Reiner et al., 2012). It describes the extent to which potential conflicts and negative feelings towards the deceased existed. For example, participants are asked about how upset the deceased person made the participant feel sometimes. The scale contains 12 items, which can be answered on a 4-point Likert-scale (1 = not true; 4 = almost always true). Cronbach's alpha in this study was excellent (α = 0.93).

Lastly, attachment was assessed with the Bochum Adult Attachment Questionnaire (Neumann et al., 2007). This questionnaire measures the self-assessment of attachment in a partnership along two subscales: attachment avoidance and attachment anxiety. For example, participants are asked if they need reassurance that their partner loves them. Eighteen items can be answered on a 7-point Likert-scale (1 = strongly disagree; 7 = strongly agree). A higher score represents higher attachment avoidance or attachment anxiety. Internal consistency was good–excellent in this study (α = 0.87–0.91).

Intervention

The intervention was an Internet-based cognitive-behavioural grief therapy, which was based on the rationale described by Wagner and colleagues (Wagner et al., 2005, 2006). Participants went through three stages in the therapy. First, they had to complete tasks of self-confrontation, which were followed by tasks of cognitive restructuring and completed by tasks of social sharing. Every week, two writing tasks had to be completed, resulting in an intervention period of five weeks. The intervention is described in detail in the Supplementary Material.

Therapy was administered by a human therapist. Communication took place on the platform Minddistrict. Before the intervention and before every writing task, therapists provided standardized psychoeducation on suicide bereavement and the treatment. After every writing tasks, therapists answered with a short message and instructions for the next writing tasks. Moreover, participants received detailed individual feedback from therapists after every two writing tasks during self-confrontation and cognitive restructuring and after each task during social sharing from therapists. Feedback was highly structured, but addressed individual writing tasks.

Data Analyses

Change in working alliance scores was analysed by means of a linear mixed model in a repeated measurement approach

using the package lme4 (Bates et al., 2015) in R Studio (Rstudio Team, 2022). Statistical analysis for research questions 2 and 3 was conducted using SPSS (version 25, SPSS Inc.). As preliminary analysis, differences between the IG and WCG in demographic variables, baseline PGD symptoms as well as early working alliance (after session 2) were tested using two-tailored t-tests and Chi-squared tests or Fisher's exact tests. Moreover, effects of baseline PGD symptom severity and working alliance early in the treatment on dropout (coded as 0 for no dropout and 1 for dropout) was calculated using a logistic regression.

The first research question (change of working alliance throughout the intervention) was analysed using a linear mixed model. We assessed need for controlling for inter-individual differences by calculating the Intraclass Correlation Coefficient (ICC). Working alliance scores were conceptualized as being nested within patients. Working alliance scores were therefore modeled as a function of time of measurement (fixed effect), while allowing for inter-individual differences of overall working alliance levels between participants (random intercepts). Significance testing of the hypothesized fixed effect of time was performed using a t-test (Satterthwaite approximation). Statistical significance was set at $p < 0.05$.

To investigate the second research question (prediction of PGD symptom severity), a multiple linear regression with PGD symptoms at post-test as the dependent variable and early working alliance and baseline PGD symptoms as independent variables was performed.

For the third research question (prediction of working alliance) a best subset regression with early working alliance as the dependent variable and the predictors as the independent variables was calculated. This method calculates all possible combinations of predictor variables and selects the model with the lowest Akaike information criterion (AIC). For the three research questions, only participants who did not have missing data at post-test for PGD symptoms, as well as for early working alliance after session 2, were included. Assumptions for all analyses were checked prior and were met. Statistical significance was set at $p < 0.05$.

Results

Preliminary Analysis

Of the 44 included participants, 88.6% were female (11.4% male), 56.8% reported to be in a partnership and 61.4% had a child/children. Participants had one (15.9%), two (29.5%), three (11.4%) or four (4.5%) child/children. Regarding the marital status, 40.9% were married and living with their spouse, 13.6% were divorced, 11.4% were widowed and 34.1% were single. The level of education was low (4.5%), middle (27.3%) and high (68.2%). The average age of the participants was 44 years ($M = 44.77$, $SD = 14.48$). Participants had a German (88.6%) or Austrian citizenship (11.4%) and were either not religious (54.5%) or catholic/protestant (45.5%). Most participants reported to not have a chronic disease (63.6%) or disability (90.9%). Regarding the kinship to the deceased, bereaved mostly lost their child (34.1%), parent (20.5%), partner or sibling (15.9% respectively), friend (4.5%) or some other close person (9.1%, e.g., neighbour, grandmother). Most frequently, the deceased died due to jumping from high places or in front of vehicles (29.5%), hanging (27.3%), poisoning (20.4%) and shooting themselves (9.1%). The average age of the deceased was 37.65 years ($SD = 15.84$). Participants mostly learned about the death from friends or family (31.8%), police (22.7%), or by finding the deceased themselves (20.5%).

IG and WCG showed no significant differences in demographic data, baseline PGD symptoms, degree of kinship to the deceased or early working alliance (see Table 1). The dropout of patients did not depend on baseline PGD symptoms ($B = 0.09$, $SE = 0.05$, $p = 0.11$) or working alliance after session 2 ($B = 0.00$, $SE = 0.06$, $p = 0.99$).

Change of Working Alliance

The mixed model predicted working alliance scores based on a fixed effect of time as well as random intercepts for each individual. Individual differences were a highly important source of variance for overall Working Alliance Scores [$ICC(1) = 0.63$, $F(43, 163) = 8.99$, $p < 0.001$]. Concerning the research question, it also revealed a significant time effect, $\beta = 1.46$ [0.93—2.00], $SE = 0.27$, $t(162) = 5.38$, $p < 0.001$, see Fig. 1.

Prediction of Treatment Outcome

The analysis of the prediction of treatment outcome by early working alliance, controlled for baseline PGD symptoms, yielded a significant prediction model ($F(2,42) = 20.54$, $p < 0.001$, see Table 2). Early working alliance significantly predicted PGD symptoms after therapy ($\beta = -0.27$, $p = 0.023$).

Prediction of Working Alliance

The best subset analysis of the prediction of working alliance yielded a significant prediction model with four variables [$F(4,39) = 6.73$, $p < 0.001$, see Table 3].

Baseline self-efficacy significantly predicted early working alliance after session 2 ($\beta = 0.47$, $p < 0.001$). Moreover, need for social support significantly predicted early working

Table 1 Demographic and clinical characteristics of participants

	Total sample ($N=44$)	IG ($N=21$)	WCG (N = 23)	p-value
Age, *M (SD)*	44.77 (14.48)	42.43 (15.97)	46.91 (12.95)	0.31[a]
Female, *n* (%)	39 (88.6)	18 (85.7)	21 (91.3)	0.66[b]
In a partnership, *n* (%)	25 (56.8)	11 (52.4)	14 (60.9)	0.76[b]
Child/children, *n* (%)	27 (61.4)	12 (57.1)	15 (65.2)	0.76[b]
School education, *n* (%)				0.51[b]
Low	2 (4.5)	1 (4.8)	1 (4.3)	
Medium	12 (27.3)	4 (19.0)	8 (34.8)	
High	30 (68.2)	16 (76.2)	14 (60.9)	
Participants lost their, n (%)				0.92[b]
Parent	9 (20.5)	4 (19.0)	5 (21.7)	
Partner	7 (15.9)	4 (19.0)	3 (13.0)	
Sibling	7 (15.9)	2 (9.5)	5 (21.7)	
Child	15 (34.1)	8 (38.1)	7 (30.4)	
Friend	2 (4.5)	1 (4.8)	1 (4.3)	
Other	4 (9.1)	2 (9.5)	2 (8.7)	
Baseline Grief[c], *M (SD)*	35.70 (10.84)	35.43 (10.57)	36.00 (11.33)	0.73[a]
Working Alliance[d], *M (SD)*	67.41 (9.95)	68.33 (10.45)	66.52 (9.57)	0.64[a]

[a]Two-tailored t-test, [b]χ^2 test or Fisher's exact test, [c]measured before the intervention, [d]measured after session 2

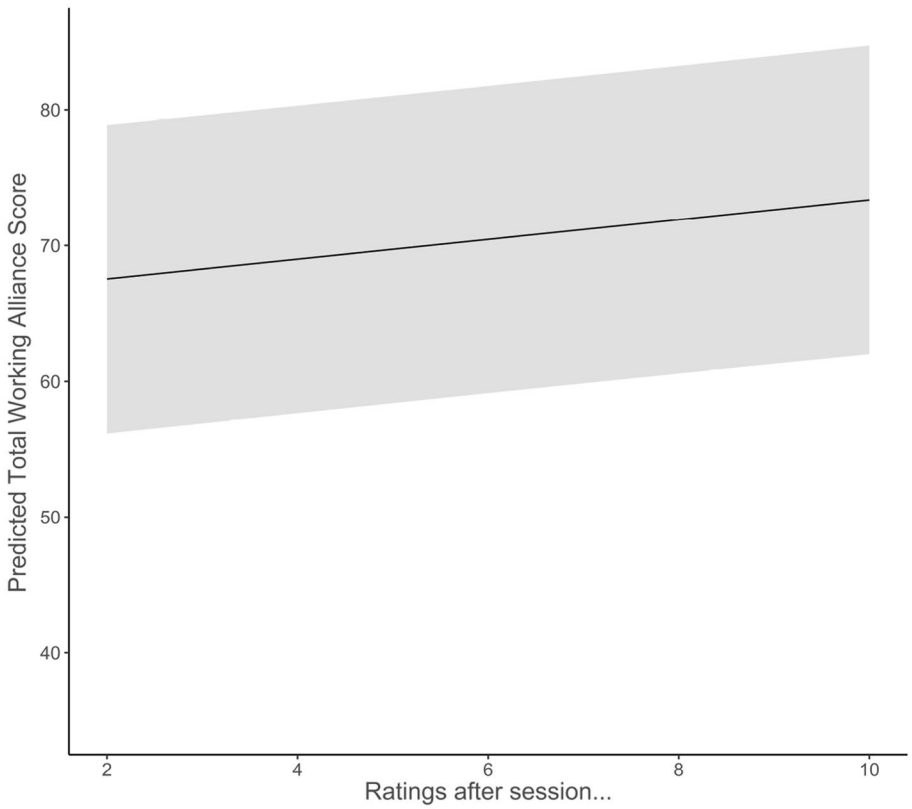

Fig. 1 Predictions for Working Alliance ratings throughout therapy using a linear mixed model including a fixed effect of time and participants as random intercepts; 95% confidence interval for predicted values are displayed in gray; Displayed predicted values are conditioned on the random effect and range between 67.52 (after session 2) and 73.37 (after session 10)

Table 2 Prediction Model of Treatment Outcome by Early Working Alliance controlled for baseline PGD symptoms

Model Term	Unstandardized *B*	Std. Error	β	*t*	*p*
Intercept	23.17	12.25		1.89	0.066
Working Alliance	− 0.34	0.14	− 0.27	− 2.36	0.023
Baseline PGD symptoms	0.72	0.15	0.57	4.92	< 0.001

$N = 44$, $R^2 = 0.50$, Adjusted $R^2 = 0.47$, $p < 0.001$

Table 3 Prediction model of early working alliance by predictor variables

Model term	Unstandardized *B*	Std. Error	β	*t*	*p*
Intercept	49.24	12.04		4.09	< 0.001
Self-efficacy	1.05	0.29	0.47	3.61	< 0.001
Need for social support	− 4.91	1.82	− 0.38	− 2.70	0.010
Conflict	3.76	1.87	0.26	2.01	0.051
Attachment avoidance	− 2.23	1.22	− 0.26	− 1.84	0.074

$N = 44$, $R^2 = 0.41$ Adjusted $R^2 = 0.35$ $p < 0.001$

alliance (β = -0.38, $p = 0.010$). Conflict (β = 0.26, $p = 0.051$) and attachment avoidance (β = -0.26, $p = 0.074$) did not significantly predict early working alliance.

Discussion

As literature regrading working alliance in bereavement interventions is scarce, this study aims to extend previous literature in this area. Results showed that early working alliance predicted treatment outcome, when controlled for baseline PGD symptoms. Previous studies on the effect of working alliance in bereavement interventions found mixed results, as the positive effect on therapy outcome was found in some studies, but not others (Glickman et al., 2018; Goetter et al., 2018; Hiemeyer et al., 2021; Kaiser et al., 2023). This could be because one study measured working alliance rated by therapist (Hiemeyer et al., 2021), and patient rated working alliance was found to have a higher effect on therapy outcome than therapists' ratings of working alliance (Cook et al., 2015). Moreover, the results of the other studies could be diverging, as the positive effect of working alliance was found in complicated grief treatment, but not interpersonal therapy or pharmacotherapy. Results indicate that patients' experience of working alliance plays an important role in grief-specific treatment approaches, such as ICBGT or complicated grief therapy (Glickman et al., 2018; Kaiser et al., 2023) in contrast to none-specific approaches like interpersonal therapy (Glickman et al., 2018). Additionally, these findings seem to apply across different types of bereavement groups, as Glickman et al. (2018) included participants with different causes of death. Consequently, despite differences between grief after suicide and grief after other death causes, the experience of the therapeutic alliance appears to have a similar impact on treatment outcome in different bereavement groups.

Regarding change of working alliance throughout therapy, results showed working alliance significantly increasing throughout the therapy, which is in line with a previous study on a bereavement intervention (Hiemeyer et al., 2021). As results in face-to-face therapies are ambivalent, different patients may show different alliance patterns and should therefore be investigated in subgroups (Zilcha-Mano & Errázuriz, 2017). Nonetheless, our findings demonstrate that the patients' experience of working alliance is able to improve through time in an Internet-based intervention for people bereaved by suicide. Although this general improvement of working alliance throughout therapy was established, our results also indicate a need for further exploration of inter-individual differences in working alliance ratings.

Moreover, in line with previous findings (Lawford et al., 2020; Mallinckrodt et al., 1995) findings show that baseline-self-efficacy significantly predicted working alliance after the second session. This suggests that the higher patients trust in being able to cope with a difficult situation, the better they perceive the working alliance early in the therapeutic process. These findings are important, because therapist can take into account different ratings of initial self-efficacy and pay particular attention to the therapeutic alliance during treatment. Moreover, previous research has investigated changes in self-efficacy throughout therapy and from pre- to post-intervention (Brown et al., 2014; Gaudiano & Herbert, 2003). Because self-efficacy was assessed only at pre-treatment in this study, it may be interesting to examine if changes in self-efficacy predict changes in working alliance throughout therapy or if a reverse effect can be found.

Furthermore, need for social support was negatively associated with working alliance, implying that a higher need for social support may be detrimental for the development of good early working alliance. Previous studies have shown that a higher reported social support is beneficial for a positive experience of working alliance, however they did not distinguish between different components of social support (Keller et al., 2010; Lackner et al., 2021). Patients with a high need for social support may perceive the alliance with the therapists as more poorly at the beginning of therapy if their broader needs for support are not adequately met. Therefore, more validation and guidance from therapists may be necessary to meet the higher needs for social support (Lackner et al., 2021). Because the need for social support may change during therapy, the influence of its change on working alliance should be further investigated in future studies.

These findings underline the importance of developing a good alliance between the patient and therapist in bereaved by suicide early in the therapy. Moreover, working alliance scores were high throughout therapy, with the lowest mean score of 67.72 after two sessions (possible range 12–84). This shows that patients and therapists were able to form a good working relationship in the online grief therapy, which supports previous studies showing similar levels of working alliance between online and face-to-face interventions (Preschl et al., 2011).

Therefore, particular attention should be paid to establishing a good working alliance in the therapeutic process in grief-specific approaches during the early stages of therapy. Hence, therapy goals and tasks should be discussed and agreed upon early in therapy, and the early bond between therapist and patient should be taken into account. As working alliance seemed to improve throughout therapy, therapist should further build alliance not only early, but also throughout therapy. Additionally, different intake characteristics of patients should be considered. As self-efficacy predicted higher early working alliance, therapist may incorporate modules that consider and strengthen patient's self-efficacy, particularly in those with low overall optimistic self-beliefs. Lastly, as a higher need for social support predicted lower early working alliance, more reassurance and validation from therapists may be necessary in patients with broader needs in social support.

Limitations

There are several limitations of this study. The generalizability of results is limited, because 88.6% of the participants were female. Moreover, most participants had a high level of education. Therefore, this study sample may not be representative of all suicide survivors. Future studies should try to include a more heterogeneous sample, as well as an equal distribution of gender. Sample size of the current study was limited. Larger sample sizes would allow for other statistical modeling of time-variant and time-invariant predictors, e.g. by means of latent growth curves. Moreover, there was a considerable dropout rate in the study. Nevertheless, dropout did not seem to be associated with early working alliance or baseline PGD symptoms.

Additionally, this study included secondary, exploratory analyses. Therefore, further studies with preliminary registered hypotheses derived from the literature are necessary.

Another limitation of this study is that predictors and outcomes were measured via self-report questionnaires. Moreover, the questionnaire for PGD did not include all of the criteria listed in the newest ICD-11. Future studies should take into account the new criteria of PGD and consider structured clinical interviews to increase validity.

Additionally, working alliance was only assessed from the perspective of the patient and not from the perspective of the therapist and the measurement of stigma referred to the perception of stigmatization by others rather than by oneself. Further research should include both patient and therapist perspectives of working alliance, as well as self-stigma measures.

In addition, predictors were only measured at one time before the intervention. To determine whether these variables change throughout therapy, they should be assessed before and after treatment. Therefore, future studies should include process characteristics additionally to intake variables.

Because the focus of this study was on working alliance and the effect of patients' characteristics on working alliance, characteristics of the therapists were not considered and should be addressed in further studies. Moreover, kinship to the deceased of patients was heterogeneous, as patients lost either their parent, partner, sibling, child or friend. Nevertheless, previous analysis of the sample showed no significant differences in treatment response regarding the kinship to the deceased (Schmidt et al., 2022).

Conclusions

This study shows that early working alliance predicts better treatment outcome and that ratings of working alliance were able to improve throughout therapy. This indicates that an online-based grief therapy is well suited to develop a good working alliance between people bereaved by suicide and therapists. It also shows the importance of early working alliance in grief-specific treatment approaches. Moreover, higher baseline self-efficacy was found to predict higher early working alliance. This shows that patients' initial self-efficacy may be beneficial for the therapy process and that

particular attention should be paid to the development of the therapeutic relationship in those with low self-efficacy. As a higher need for social support may be detrimental for early working alliance, more guidance and reassurance in patients with broader needs for social support may be necessary. To determine how interventions can be adjusted to address individual working alliance patterns and characteristics, further studies are needed.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s10608-023-10383-8.

Acknowledgements None.

Funding Open Access funding enabled and organized by Projekt DEAL. This study was supported by research grants from the Roland Ernst Stiftung(project number 933100-017), which had no role in the design of this study, in the collection,analysis and interpretation of data; in the writing of the report; and in the decision to submitthe article for publication.

Declarations

Conflict of Interest Viktoria Schmidt, Julia Treml, Julia Deller and Anette Kersting declare that they have no conflict of interest.

Ethical Approval This study was carried out according to the Helsinki Statement and has been approved by the Ethics Committee of the Medical Faculty of the University of Leipzig (reference number: 319-14-06102014).

Informed Consent All participants provided informed written consent.

Animal Rights No animal studies were carried out by the authors for this article.

References

American Psychiatric Association (Ed.). (2022). *Diagnostic and statistical manual of mental disorders: DSM-5-TR* (Fifth edition, text revision). American Psychiatric Association Publishing.

Andriessen, K., Krysinska, K., Hill, N. T. M., Reifels, L., Robinson, J., Reavley, N., & Pirkis, J. (2019). Effectiveness of interventions for people bereaved through suicide: A systematic review of controlled studies of grief, psychosocial and suicide-related outcomes. *BMC Psychiatry, 19*(1), 49. https://doi.org/10.1186/s12888-019-2020-z

Backhaus, J., & Riemann, D. (1996). *Schlafstörungen bewältigen: Informationen und Anleitung zur Selbsthilfe*. Beltz Psychologie-VerlUnion.

Bates, D., Machler, M., Bolker, B. M., & Walker, S. C. (2017). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software, 85*(5), 508–520. https://doi.org/10.18637/jss.v067.

Beierl, E. T., Murray, H., Wiedemann, M., Warnock-Parkes, E., Wild, J., Stott, R., Grey, N., David, M., & Ehlers, A. (2021). The relationship between working alliance and symptom improvement in cognitive therapy for posttraumatic stress disorder. *Frontiers in Psychiatry, 12*, 602648. https://doi.org/10.3389/fpsyt.2021.602648

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/10.1080/10503307.2015.1119908

Berman, A. L. (2011). Estimating the population of survivors of suicide: seeking an evidence base: Estimating the population of survivors of suicide. *Suicide and Life-Threatening Behavior, 41*(1), 110–116. https://doi.org/10.1111/j.1943-278X.2010.00009.x

Boelen, P. A., & Kolchinska, Y. (2022). Prolonged grief disorder: Nature, risk-factors, assessment, and cognitive-behavioural treatment. *Psychosomatic Medicine and General Practice, 7*(2), e0702375. https://doi.org/10.26766/pmgp.v7i2.375

Bordin, E. S. (1994). Theory and research on the therapeutic working alliance: New directions. In A. O. Horvath & L. S. Greenberg (Eds.), *The working alliance: Theory, research, and practice* (pp. 13–37). John Wiley & Sons.

Brown, L. A., Wiley, J. F., Wolitzky-Taylor, K., Roy-Byrne, P., Sherbourne, C., Stein, M. B., Sullivan, G., Rose, R. D., Bystritsky, A., & Craske, M. G. (2014). Changes in self-efficacy and outcome-expectancy as predictors of anxiety outcomes from the CALM study. *Depression and Anxiety, 31*(8), 678–689. https://doi.org/10.1002/da.22256

Carpiniello, B., & Pinna, F. (2017). The reciprocal relationship between suicidality and stigma. *Frontiers in Psychiatry*. https://doi.org/10.3389/fpsyt.2017.00035

Del Re, A. C., Flückiger, C., Horvath, A. O., & Wampold, B. E. (2021). Examining therapist effects in the alliance–outcome relationship: A multilevel meta-analysis. *Journal of Consulting and Clinical Psychology, 89*(5), 371–378. https://doi.org/10.1037/ccp0000637

Derogatis, L. R. (1993). *Brief Symptom Inventory (BSI): Administration, Scoring, & Procedures Manual* (fourth ed.). Minneapolis, Minnesota.

Djelantik, A. A. A. M. J., Smid, G. E., Mroz, A., Kleber, R. J., & Boelen, P. A. (2020). The prevalence of prolonged grief disorder in bereaved individuals following unnatural losses: Systematic review and meta regression analysis. *Journal of Affective Disorders, 265*, 146–156. https://doi.org/10.1016/j.jad.2020.01.034

Eisma, M. C. (2018). Public stigma of prolonged grief disorder: An experimental study. *Psychiatry Research, 261*, 173–177. https://doi.org/10.1016/j.psychres.2017.12.064

Eisma, M. C., Boelen, P. A., van den Bout, J., Stroebe, W., Schut, H. A. W., Lancee, J., & Stroebe, M. S. (2015). Internet-based exposure and behavioral activation for complicated grief and rumination: A randomized controlled trial. *Behavior Therapy, 46*(6), 729–748. https://doi.org/10.1016/j.beth.2015.05.007

Flückiger, C. (2018). Bedeutung der Arbeitsallianz für die Psychotherapie: Bericht einer APA-Taskforce 2018. *Zeitschrift Für Klinische Psychologie Und Psychotherapie, 47*(2), 119–125. https://doi.org/10.1026/1616-3443/a000480

Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy, 55*(4), 316–340. https://doi.org/10.1037/pst0000172

Flückiger, C., Del Re, A. C., Wlodasch, D., Horvath, A. O., Solomonov, N., & Wampold, B. E. (2020a). Assessing the alliance–outcome association adjusted for patient characteristics and treatment processes: A meta-analytic summary of direct comparisons. *Journal of Counseling Psychology, 67*(6), 706–711. https://doi.org/10.1037/cou0000424

Flückiger, C., Rubel, J., Del Re, A. C., Horvath, A. O., Wampold, B. E., Crits-Christoph, P., Atzil-Slonim, D., Compare, A., Falkenström, F., Ekeblad, A., Errázuriz, P., Fisher, H., Hoffart, A., Huppert, J. D., Kivity, Y., Kumar, M., Lutz, W., Muran, J. C., Strunk, D. R., & Barber, J. P. (2020b). The reciprocal relationship between alliance and early treatment symptoms: A two-stage individual participant data meta-analysis. *Journal of Consulting and Clinical Psychology, 88*(9), 829–843. https://doi.org/10.1037/ccp0000594

Gaudiano, B. A., & Herbert, J. D. (2003). Preliminary psychometric evaluation of a new self-efficacy scale and its relationship to treatment outcome in social anxiety disorder. *Cognitive Therapy and Research, 27*(5), 537–555. https://doi.org/10.1023/A:1026355004548

Glickman, K., Shear, M. K., & Wall, M. M. (2018). Therapeutic alliance and outcome in complicated grief treatment. *International Journal of Cognitive Therapy, 11*(2), 222–233. https://doi.org/10.1007/s41811-018-0018-9

Goetter, E. M., Mauro, C. M., Qiu, X., Skritskaya, N. A., Reynolds, C. F., Zisook, S., & Simon, N. M. (2018). Treatment expectancy and working alliance in pharmacotherapy as predictors of outcomes in complicated grief. *Journal of Consulting and Clinical Psychology, 86*(4), 367–371. https://doi.org/10.1037/ccp0000294

Hersoug, A. G., Høglend, P., Havik, O. E., & Monsen, J. T. (2010). Development of working alliance over the course of psychotherapy. *Psychology and Psychotherapy: Theory, Research and Practice, 83*(2), 145–159. https://doi.org/10.1348/147608309X471497

Hiemeyer, R.-B., Berger, T., Braun, T., & Wagner, B. (2021). Psychotherapists' rated working alliance in an internet-based intervention for bereaved siblings. *Death Studies*. https://doi.org/10.1080/07481187.2021.1995533

Horvath, A. O., Del Re, A. C., Flückiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. *Psychotherapy, 48*(1), 9–16. https://doi.org/10.1037/a0022186

Jasper, K., Weise, C., Conrad, I., Andersson, G., Hiller, W., & Kleinstäuber, M. (2014). Internet-based guided self-help versus group cognitive behavioral therapy for chronic tinnitus: A randomized controlled trial. *Psychotherapy and Psychosomatics, 83*(4), 234–246. https://doi.org/10.1159/000360705

Jerusalem, M., & Schwarzer, R. (2003). SWE - Skala zur Allgemeinen Selbstwirksamkeitserwartung. https://doi.org/10.23668/PSYCHARCHIVES.4515

Jordan, J. R. (2008). Bereavement after suicide. *Psychiatric Annals, 38*(10), 679–685. https://doi.org/10.3928/00485713-20081001-05

Jordan, J. R. (2020). Lessons learned: Forty years of clinical work with suicide loss survivors. *Frontiers in Psychology, 11*, 766. https://doi.org/10.3389/fpsyg.2020.00766

Kaiser, J., Hanschmidt, F., & Kersting, A. (2021). The association between therapeutic alliance and outcome in internet-based psychological interventions: A meta-analysis. *Computers in Human Behavior, 114*, 106512. https://doi.org/10.1016/j.chb.2020.106512

Kaiser, J., Nagl, M., Hoffmann, R., Linde, K., & Kersting, A. (2022). Therapist-assisted web-based intervention for prolonged grief disorder after cancer bereavement: Randomized controlled trial. *JMIR Mental Health, 9*(2), e27642. https://doi.org/10.2196/27642

Kaiser, J., Treml, J., Hoffmann, R., Linde, K., Nagl, M., & Kersting, A. (2023). Factors associated with treatment response in an internet-based intervention for prolonged grief disorder after cancer bereavement. *Behavior Therapy, 54*(1), 119–131. https://doi.org/10.1016/j.beth.2022.07.008

Keller, S. M., Zoellner, L. A., & Feeny, N. C. (2010). Understanding factors associated with early therapeutic alliance in PTSD treatment: Adherence, childhood sexual abuse history, and social support. *Journal of Consulting and Clinical Psychology, 78*(6), 974–979. https://doi.org/10.1037/a0020758

Lackner, J. M., Quigley, B. M., Radziwon, C. D., & Vargovich, A. M. (2021). IBS patients treatment expectancy and motivation impacts quality of the therapeutic alliance with provider: Results of the IBS outcome study. *Journal of Clinical Gastroenterology, 55*(5), 411–421. https://doi.org/10.1097/MCG.0000000000001343

Lange, A., Schrieken, B., van de Ven, J.-P., Bredeweg, B., Emmelkamp, P. M. G., van der Kolk, J., & Reuvers, A. (2000). Interapy: The effects of a short protocolled treatment of post-traumatic stress and pathological grief through the Internet. *Behavioural and Cognitive Psychotherapy, 28*(2), 175–192. https://doi.org/10.1017/S1352465800001089

Latham, A. E., & Prigerson, H. G. (2004). Suicidality and bereavement: Complicated grief as psychiatric disorder presenting greatest risk for suicidality. *Suicide and Life-Threatening Behavior, 34*(4), 350–362. https://doi.org/10.1521/suli.34.4.350.53737

Lawford, B. J., Bennell, K. L., Campbell, P. K., Kasza, J., & Hinman, R. S. (2020). Therapeutic alliance between physical therapists and patients with knee osteoarthritis consulting via telephone: A longitudinal study. *Arthritis Care & Research, 72*(5), 652–660. https://doi.org/10.1002/acr.23890

Lin, T., Anderson, T., Austin, M., & Mischkowski, D. (2023). Early trajectories of symptom change and working alliance as predictors of treatment outcome. *Psychotherapy Research, 33*(2), 185–197. https://doi.org/10.1080/10503307.2022.2080028

Lundorff, M., Holmgren, H., Zachariae, R., Farver-Vestergaard, I., & O'Connor, M. (2017). Prevalence of prolonged grief disorder in adult bereavement: A systematic review and meta-analysis. *Journal of Affective Disorders, 212*, 138–149. https://doi.org/10.1016/j.jad.2017.01.030

Luo, X., Bugatti, M., Molina, L., Tilley, J. L., Mahaffey, B., & Gonzalez, A. (2022). Conceptual invariance trajectories, and outcome associations of working alliance in unguided and guided internet-based psychological interventions: Secondary analysis of a randomized controlled trial. *JMIR Mental Health, 9*(6), e35496. https://doi.org/10.2196/35496

Mallinckrodt, B., Coble, H. M., & Gantt, D. L. (1995). Working alliance, attachment memories, and social competencies of women in brief therapy. *Journal of Counseling Psychology, 42*(1), 79–84. https://doi.org/10.1037/0022-0167.42.1.79

Neumann, E., Rohmann, E., & Bierhoff, H.-W. (2007). Entwicklung und validierung von skalen zur erfassung von vermeidung und angst in partnerschaften. *Diagnostica, 53*(1), 33–47. https://doi.org/10.1026/0012-1924.53.1.33

Notsu, H., Iwakabe, S., & Thoma, N. C. (2022). Enhancing working alliance through positive emotional experience: A cross-lag analysis. *Psychotherapy Research*. https://doi.org/10.1080/10503307.2022.2124893

Pfoh, G., & Rosner, R. (2014). Deutsche überarbeitete Übersetzung des PG-13: Erhebungsbogen für anhaltende Trauer. https://endoflife.weill.cornell.edu/sites/default/files/file_uploads/pg139_gesamt.pdf.

Preschl, B., Maercker, A., & Wagner, B. (2011). The working alliance in a randomized controlled trial comparing online with face-to-face cognitive-behavioral therapy for depression. *BMC Psychiatry, 11*(1), 189. https://doi.org/10.1186/1471-244X-11-189

Prigerson, H. G., Horowitz, M. J., Jacobs, S. C., Parkes, C. M., Aslan, M., Goodkin, K., Raphael, B., Marwit, S. J., Wortman, C., Neimeyer, R. A., Bonanno, G., & Maciejewski, P. K. (2009). Prolonged grief disorder: Psychometric validation of criteria proposed for DSM-V and ICD-11. *PLoS Medicine, 6*(8), e1000121. https://doi.org/10.1371/journal.pmed.1000121

Prigerson, H. G., Maciejewski, P. K., Reynolds, C. F., Bierhals, A. J., Newsom, J. T., Fasiczka, A., Frank, E., Doman, J., & Miller, M. (1995). Inventory of complicated grief: A scale to measure maladaptive symptoms of loss. *Psychiatry Research, 59*(1–2), 65–79. https://doi.org/10.1016/0165-1781(95)02757-2

Reiner, I., Beutel, M., Skaletz, C., Brähler, E., & Stöbel-Richter, Y. (2012). Validating the german version of the quality of relationship inventory: confirming the three-factor structure and report of psychometric properties. *PLoS ONE, 7*(5), e37380. https://doi.org/10.1371/journal.pone.0037380

Rheingold, A. A., Baddeley, J. L., Williams, J. L., Brown, C., Wallace, M. M., Correa, F., & Rynearson, E. K. (2015). Restorative retelling for violent death: An investigation of treatment effectiveness, influencing factors, and durability. *Journal of Loss and Trauma, 20*(6), 541–555. https://doi.org/10.1080/15325024.2014.957602

Robinson, L. (2021). *Associations between sleep quality, therapeutic alliance, and ineffective arguing among couples in therapy* [Auburn University]. https://etd.auburn.edu//handle/10415/7906

RStudio Team (2022). RStudio: Integrated Development Environment for R. RStudio, PBC, Boston, MA URL http://www.rstudio.com/

Schmidt, V., Treml, J., Linde, K., Peterhänsel, C., & Kersting, A. (2022). Predictors of prolonged grief in an internet-based grief therapy for people bereaved by suicide. *Journal of Psychiatric Research, 149*, 162–167. https://doi.org/10.1016/j.jpsychires.2022.02.023

Schulz, U., & Schwarzer, R. (2003). Soziale Unterstützung bei der Krankheitsbewältigung: Die Berliner Social Support Skalen (BSSS). *Diagnostica, 49*(2), 73–82. https://doi.org/10.1026//0012-1924.49.2.73

Scocco, P., Castriotta, C., Toffol, E., & Preti, A. (2012). Stigma of Suicide Attempt (STOSA) scale and Stigma of Suicide and Suicide Survivor (STOSASS) scale: Two new assessment tools. *Psychiatry Research, 200*(2–3), 872–878. https://doi.org/10.1016/j.psychres.2012.06.033

Shattock, L., Berry, K., Degnan, A., & Edge, D. (2018). Therapeutic alliance in psychological therapy for people with schizophrenia and related psychoses: A systematic review. *Clinical Psychology & Psychotherapy, 25*(1), e60–e85. https://doi.org/10.1002/cpp.2135

Simon, N. M. (2013). Treating complicated grief. *JAMA, 310*(4), 416–423. https://doi.org/10.1001/jama.2013.8614

Sveen, C.-A., & Walby, F. A. (2008). Suicide survivors' mental health and grief reactions: A systematic review of controlled studies. *Suicide and Life-Threatening Behavior, 38*(1), 13–29. https://doi.org/10.1521/suli.2008.38.1.13

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

Treml, J., Nagl, M., Linde, K., Kündiger, C., Peterhänsel, C., & Kersting, A. (2021). Efficacy of an Internet-based cognitive-behavioural grief therapy for people bereaved by suicide: A randomized controlled trial. *European Journal of Psychotraumatology, 12*(1), 1926650. https://doi.org/10.1080/20008198.2021.1926650

United Kingdom Alcohol Treatment Trial Research Team. (2015). The role of the working alliance in treatment for alcohol problems. *Psychology of Addictive Behaviors, 29*(2), 371–381. https://doi.org/10.1037/adb0000058

von Collani, G., & Herzberg, P. Y. (2003). Eine revidierte Fassung der deutschsprachigen Skala zum Selbstwertgefühl von Rosenberg. *Zeitschrift Für Differentielle Und Diagnostische Psychologie, 24*(1), 3–7. https://doi.org/10.1024//0170-1789.24.1.3

Wagner, B., Knaevelsrud, C., & Maercker, A. (2005). Internet-based treatment for complicated grief: Concepts and case study. *Journal of Loss and Trauma, 10*(5), 409–432. https://doi.org/10.1080/15325020590956828

Wagner, B., Knaevelsrud, C., & Maercker, A. (2006). Internet-based cognitive-behavioral therapy for complicated grief: A randomized controlled trial. *Death Studies, 30*(5), 429–453. https://doi.org/10.1080/07481180600614385

Wagner, B., Rosenberg, N., Hofmann, L., & Maass, U. (2020). Web-Based Bereavement Care: A systematic review and meta-analysis. *Frontiers in Psychiatry, 11*, 525. https://doi.org/10.3389/fpsyt.2020.00525

WHO (2018). ICD-11—International classification of diseases for mortality and morbidity statistics (11th Revision). https://icd.who.int/en.

WHO (2020). Suicide. https://www.who.int/news-room/fact-sheets/detail/suicide.

Young, I. T., Iglewicz, A., Glorioso, D., Lanouette, N., Seay, K., Ilapakurti, M., & Zisook, S. (2012). Suicide bereavement and complicated grief. *Dialogues Clinical Neuroscience, 14*(2), 177–186. https://doi.org/10.31887/DCNS.2012.14.2/iyoung

Zilcha-Mano, S., & Errázuriz, P. (2017). Early development of mechanisms of change as a predictor of subsequent change and treatment outcome: The case of working alliance. *Journal of Consulting and Clinical Psychology, 85*(5), 508–520. https://doi.org/10.1037/ccp0000192