

Interventions for family members and carers of patients with borderline personality disorder: A systematic review

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Abstract

Carers of patients with borderline personality disorder (BPD) experience high levels of distress. Several studies have been carried out on interventions designed to decrease their burden. However, the evidence from these studies has not been summarized. The objective of this work is to explore the clinical utility of interventions developed for family members of patients with BPD. A systematic review was conducted following the PRISMA guidelines (registration number CRD42018107318), including psychological interventions focused on relatives of patients with BPD. The following databases were used: PsycINFO, PubMed, EBSCOhost, and Web of Science. Two independent researchers reviewed the studies to determine whether the eligibility criteria were met. A total of 2303 abstracts were identified. After duplicates had been removed, 1746 studies were screened. Finally, 433 full-text articles were reviewed, yielding 11 studies that satisfied the inclusion criteria. Results show that these interventions with different clinical formats and settings are effective. The quality of the included studies varies, and the empirical support for these programmes is still preliminary. The results help to establish a

general framework for interventions specifically developed for family members of patients with BPD, but additional efforts should be made to improve the methodological quality of this field of research and more solidly determine the utility of these interventions. Given the paucity of data so far, this information may open up new lines of research to improve the effectiveness of future programmes for carers of patients with BPD and help to reduce their burden.

Keywords: borderline personality disorder, psychological treatment to relatives, dialectical behaviour therapy, relatives, carers, family members, psychoeducation.

Introduction

Borderline personality disorder (BPD) is one of the most complex and serious personality disorders clinicians face. This psychological disorder, which involves difficulties with emotional regulation, impulsivity and self-destructive behaviours (American Psychiatric Association, 2013), has been associated with a high risk of suicide (Belloch & Fernández-Álvarez, 2002). In addition, numerous psychiatric disorders may occur alongside BPD, including alcohol consumption (Fernández-Montalvo & Landa, 2003), psychoactive substance use (Trull, Sher, Minks-Brown, Durbin, & Burr, 2000), major depression, anxiety, impulse control, attention deficit, post-traumatic stress, or eating disorders (McGlashan et al., 2000), and BPD overlaps with other personality disorders (Zanarini et al., 1998). Thus, BPD is highly dysfunctional and has direct consequences in workplace, emotional, interpersonal, and family areas. This dysfunctional pattern produces a great burden for patients, but also for their relatives or people living with them. In terms of its impact on daily life, there may be widespread disruption in the routines of family members (Giffin, 2008). Considerable research has demonstrated that the family and carers of patients with BPD experience high levels of distress and pathology and suffer more from a variety of psychiatric conditions than the general population (Scheirs & Bok, 2007). Furthermore, family members can also experience increased anxiety and depression as a result of caring and providing support for their relatives (Wilks et al., 2017), and they frequently experience a significant burden and feelings of loss and grief, and other kinds of distress (Hoffman et al., 2005).

Several evidence-based psychological treatments have been proposed for BPD. Dialectical behavioural therapy (DBT), developed by Linehan (1993), has received the

most empirical support and is designed to target the mood instability and impulsive behaviours of BPD patients. Other psychological interventions have been proposed for the treatment of BPD, such as “mentalization-based therapy” (MBT) (Bateman & Fonagy, 2004) and “transference-focused psychotherapy” (Yeomans, Clarkin, & Kernberg, 2002). In sum, there are currently several evidence-based treatments that have been found to contribute to the personal, emotional, social, and physical well-being of patients with BPD.

Although there are data on the effectiveness of psychological treatments for patients with BPD (Cristea et al., 2017), less attention has been paid to the role of family interventions. Family members perform multiple functions, such as lawyer, carer, coach, and guardian (Flynn et al., 2017). Although it can be rewarding to provide support and care for loved ones who need it, it also typically places a considerable burden on family members and carers. Furthermore, over time, stress can reduce the ability of family members to cope effectively, endangering their psychological well-being and quality of life (Hoffman & Fruzzetti, 2007). Literature shows that family members experience exhaustion, depression, grief, pain, and other types of anguish (Hoffman et al., 2005; Hoffman, Fruzzetti, & Buteau, 2007). Thus, it is surprising that so few treatment programmes have been developed to care for family members of patients diagnosed with BPD, compared to treatment programmes developed for family members of patients with other severe psychiatric disorders -such as schizophrenia (Pilling et al., 2002), and bipolar disorder (Moltz, 1993). However, some intervention programmes have been developed and tested for relatives of patients with BPD, with the aim of educating, supporting, and helping them to understand the disorder, the chaos that often exists, or the emotional impact of the disorder on the patient and/or the carer (Hoffman, Buteau, Hooley, Fruzzetti, & Bruce, 2003; Scheirs & Bok, 2007). Literature has pointed out improvements in the well-being of family members when they are involved in treatment

(Dixon et al., 2001). In addition, participating in treatment enables them to know more about the disorder, set limits, validate their own experiences, and prioritize their own health in a supportive environment (Penney, 2008). Furthermore, the patients can also obtain benefits from the family's involvement in the treatment. Although it has not yet been demonstrated that the carer's burden can alter the outcome of a patient with BPD, some studies have found that interventions with family members can improve the effectiveness of treatments for people with BPD and their long-term prognosis, and reduce the interpersonal factors that can maintain BPD symptoms, taking into account family members' difficulties in a non-invalidating way (Fossati & Somma, 2018; Gunderson et al., 2006; Hooley & Hoffman, 1999). Furthermore, working with family members could have an influence on reducing patient relapse and rehospitalization and improving patient recovery (Dixon et al., 2001). Therefore, it is necessary to develop and test intervention programmes designed specifically for family members of patients suffering from BPD, and analyse existing studies. Thus, the objective of the present work, as described in detail below, is to explore the clinical utility of the programmes that have been developed so far in the field of interventions for family members of patients with BPD.

Moreover, some authors have focused on analysing the experiences of carers of people diagnosed with BPD, showing that carers feel discriminated against when they ask for help and support from health services (Miller & Skerven, 2017). They express a lack of recognition and support for the needs of the person with BPD and his/her relatives, and they state that professionals do not know how to adequately respond to their demands (Lawn & McMahon, 2015). Indeed, the National Institute for Health and Care Excellence (NICE) guidelines for BPD treatment have highlighted the need to provide interventions for family members who are living with and caring for a patient

with BPD, in order to support them and deal with their problems as a key aspect of BPD treatment (National Collaborating Centre for Mental Health, 2009).

Some research has examined interventions that include family members of patients with BPD, and the studies differ in the focus or structure of the treatment. In general, there are programmes for patients where family members are included in a few sessions (Blum, Pfohl, John, Monahan, & Black, 2002; Rathus & Miller, 2002; Woodberry & Popenoe, 2008). There are also some programmes designed for patients and relatives that include different treatment components for each group. In these cases, the treatment is given jointly, but the main focus is on patients rather than on family members or carers (Santisteban, Muir, Mena, & Mitrani, 2003; Santisteban et al., 2015). Thus far, small pilot studies have only provided feasibility and acceptability data for the intervention programme (Santisteban et al., 2003; Santisteban et al., 2015). In general, all these programmes recommend that family members be included in the treatment plan, but the fundamental focus is not on the family or carers. Finally, there are programmes specifically focused on relatives of patients with BPD, such as Family Connections (Flynn et al., 2017; Hoffman et al., 2005, 2007).

Taken together, existing studies show that paying attention to family members of patients suffering from BPD begins to be important in patients' recovery and in improving the family dynamics, providing the family with a series of strategies that help them to relate to the patient and deal with a crisis situation. However, the evidence about the efficacy of these interventions has not yet been summarized. In this regard, only two reviews (Clarkin, Marziali, & Munroe-Blum, 1991; Fitzpatrick, Wagner, & Monson, 2019) and a qualitative review (Fossati & Somma, 2018) have been published. However, although these studies are fundamental in understanding the role of family members in BPD interventions, these reviews are descriptive, in contrast to studies that use a current

systematic methodology following PRISMA guidelines. The aim of this study was to conduct a systematic review to analyse the existence and clinical usefulness of intervention programmes specifically designed for family members, relatives, and carers of patients suffering from BPD. To the best of our knowledge, this is the first systematic review to synthesize the findings from interventions developed for and tested in this population.

Method

The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) statement was used as a guide to carry out this systematic review (Moher et al., 2009). The systematic review protocol was registered in the International Prospective Register of Systematic Reviews (PROSPERO) under registration number CRD42018107318.

Search strategy

A systematic search of peer-reviewed literature was conducted using the following databases: PsycINFO, PubMed and Cochrane. The following search terms were used to represent the areas of: i) psychological interventions; ii) relatives, family members, carers; iii) borderline personality disorder (see Annex 1). The search was conducted until 26th June (2018). Articles from Google Scholar and references from relevant articles were also searched for additional studies. If the full text was not available or data were missing or unclear, we contacted the respective author. Only studies written in English or Spanish were included. We did not restrict the publication year.

Inclusion criteria

Studies were included in the current review if: (a) the intervention tested explicitly targeted relatives, family members, or carers of patients with BPD; (b) the study was published in an English or Spanish language peer-reviewed journal. Studies examining interventions focused only on patients with psychological or medical and pharmacological interventions were excluded. No restrictions were placed on age, intervention length, delivery format (i.e. group, individual), session frequency, or comparators (i.e. treatment as usual, waiting list). Two independent researchers (VG and AD-G) reviewed and selected the studies independently. The studies finally selected were overseen by two expert clinicians (AG-P and CB).

Data extraction

Data extraction for studies that met the inclusion criteria (and associated study protocols) was performed by VG and AD-G, and disagreements were resolved through discussion with the other authors (AM and TE-M). Data outlining the study design, aims, sample, characteristics of the intervention, outcome measures, key findings, limitations, and conclusions were extracted.

Results

Selection and inclusion of studies

A total of 2295 studies were identified through database searches (PsycINFO = 479; PubMed = 1028; Cochrane Library = 788), and 10 additional records were identified through other sources (i.e. Google Scholar and references from relevant articles). After removing duplicates, 1746 records were screened based on title and abstract. Of these, 433 full articles were assessed for eligibility, of which 11 were selected for final inclusion in the

systematic review. The study selection process is presented in the PRISMA flow chart (Figure 1).

-----Insert Figure 1-----

Figure 1. PRISMA flow chart

Characteristics of included studies

Table S1 presents the fundamental results obtained in the studies taken into consideration in this review, as well as the description of a series of variables addressed in the process of extracting information from these studies: objectives, participants and type of relationship with the patient, age and sex of the participants, design followed in the study, description of the intervention used, content of the intervention, context in which it is applied and who applies the intervention, theoretical model on which the intervention is based, outcome measures used, effect sizes, limitations of the study, and summary of the results. As can be seen in Table S1, eleven treatment programmes that specifically focused on relatives of patients with BPD were found in this review work. Two of these programmes are psychoeducational, another study is based on mentalization, and the rest are DBT-based.

The objective of psychoeducational interventions is to provide family members of BPD patients with information about the disease and help them to understand some of their relative's behaviours, thus improving the relationship and family climate. The work by Pearce et al. (2017) combines cognitive analytical therapy with general psychiatric care, and the results showed a significant decrease in subjective burden and an increase in knowledge about BPD. The intervention was applied by expert clinicians to family members during three two-hour sessions, yielding a total of 6 hours of psychoeducation (Pearce, et al., 2017). On the other hand, Grenyer et al. (2018) compare psychoeducation

strategies based on a relational model of personality disorders, with a waiting list control condition in an RCT. The "Staying Connected" programme consisted of 16 hours of face-to-face contact over a period of 10 weeks. They also offered a DVD with the psychoeducational information that had been offered in the programme ("Project Air Strategy for Personality Disorders", 2012). The results for the intervention group showed improvements in family empowerment and dyadic perception and reductions in family criticism, compared to a waiting list control group. In addition, results were maintained at the 12-month follow-up. (Grenyer, et al., 2018).

Mentalization-based programmes provide family members of BPD patients with basic information about the disorder, and they train them in a range of skills to help them cope with and adequately manage the common problems they may encounter in their daily life with a person with BPD. Bateman and Fonagy (2018) conducted an RCT comparing a mentalization-based programme with a delayed treatment. The results indicate that the mentalization-based programme reduced reported adverse incidents and improved family functioning and well-being significantly more in the immediate-treatment group. The changes were maintained at follow-up.

The rest of the programmes included in this review are based on DBT. They use either adaptations of DBT in 10–12 sessions, where parents receive instruction in DBT mini-skills, or group therapy where skills are taught for six months. The mini-skills included in these programmes are psychoeducation, mindfulness, emotional regulation, validation, radical acceptance, interpersonal effectiveness strategies, and problem solving.

The most empirically supported study is Family Connections (FC) (Hoffman et al., 2005), one of the first interventions designed for relatives of patients with BPD, applied by either clinicians or trained relatives. To test the efficacy of FC, five uncontrolled clinical

trials were conducted, with pre-post treatment and follow-up evaluations (Ekdahl, Idvall, & Perseus, 2014; Flynn et al., 2017; Hoffman et al., 2005, 2007; Liljedahl et al., 2019). In general, the results of the FC programme were consistent in all replications. Significant decreases were observed in the subjective experience of disease burden, perceived discomfort, depression, and distress, and statistically significant increases were observed in the participants' subjective experience of mastery/empowerment. These changes were maintained or even improved at three- or six-month follow-ups. Thus, these interventions for family and carers of people with BPD may be helpful in reinforcing patients' skilful behaviours, reducing their symptoms, improving interpersonal relationships between patients and their relatives, increasing accurate knowledge and reducing perceived stigma, and improving family empowerment (Liljedahl et al., 2019).

Other papers on brief adaptations of DBT (Miller & Skerven, 2017; Regalado, Pechon, Stoewsand, & Gagliesi, 2011) use these same intervention techniques, but they differ in their delivery structure. In the study by Regalado et al. (2011), 12 weekly two-hour sessions were also applied, and in the study by Miller and Skerven (2017), the programme consisted of an initial 8-hour workshop, followed by eight bi-weekly 2-hour sessions. These two studies succeeded in reducing burnout, depression, and distress, and improving levels of hope and interpersonal sensitivity. Along the same lines, Wilks, Korslund, Harned, and Linehan (2016) used group therapy with DBT skills applied for 6 months and obtained good results. Nevertheless, in this study, the sample was composed of a heterogeneous group of 20 participants, relatives of people with different mental disorders (anxiety, depression, BPD, and post-traumatic stress disorder), rather than just relatives of patients with BPD, as in the other studies. In any case, all of these DBT-based programmes suggest that DBT skill training may be useful for family members of patients with BPD, whether using abbreviated DBT adaptations or the entire skills training group.

In terms of the people who implemented the intervention programme, in many studies they were psychiatrists, psychologists, or PhD-level clinicians trained in DBT, aided by a graduate student or support worker. Moreover, in several of the studies, (Bateman & Fonagy, 2018; Hoffman et al., 2005, 2007) applying FC or the mentalization-based training, the programme was delivered by volunteer family members who had been previously trained.

With regard to the outcome measures considered in these studies, as Table S1 shows, most of the studies evaluated the construct of burden (objective burden and subjective burden), emotional burnout, feelings of pain and grief, family climate, depressive-anxious symptoms, perceived level of coping and mastery, relationship skills, and family climate. Nevertheless, in several studies, other variables were also considered, such as: the number of conflicting or adverse incidents involving the patient with BPD, as reported by the carer, hopelessness, and other symptom patterns of psychological distress, quality of life, family empowerment, and mindfulness.

-----Insert Table S1-----

Discussion

The aim of this study was to carry out a systematic review of the intervention programmes developed and tested to date to help relatives of patients with BPD. This review has focused on interventions specifically designed for family members, relatives, or people living with these patients. The interventions focus on the relatives, unlike programmes for patients that merely include relatives in some sessions (Blum et al., 2002; Rathus & Miller, 2002; Woodberry & Popenoe, 2008), or programmes that include specific treatment components for patients and relatives, where the intervention is offered jointly for

both, but where the target is still the patient and no data are provided on the outcome of the intervention in the relatives (Santisteban et al., 2003, 2015).

The search identified a total of 11 studies that met the inclusion criteria. All these programmes are offered in group format, but they differ in the type of orientation and contents, as well as the structure of the intervention. As described in the results section, two studies present only psychoeducational contents (Grenyer et al., 2018; Pearce et al., 2017). The rest of the programmes, despite containing some psychoeducation sessions, are skills training programmes, either based on mentalization (Bateman & Fonagy, 2018) or on DBT skills (Hoffman et al., 2005, 2007). With regard to the DBT skills training studies, they have different structures and numbers of sessions.

Regarding the results, as Table S1 shows, significant improvements were obtained in most of the outcome measures used in the different studies. Therefore, the first conclusion that can be drawn is that some programmes designed specifically to help family members of patients with BPD have obtained empirical support. In general, all these programmes have been shown to be useful for reducing emotional burnout, feelings of pain and guilt, overload, and depressive-anxious symptoms, and for improving relationship skills and the family climate. They provide family members with a series of strategies that help them to relate to the patient suffering from BPD and know how to act in a crisis situation. The FC programme deserves to be highlighted because it is the most advanced so far, both in terms of content specifically designed for families and in terms of strategies designed to improve its dissemination, such as training family members to hold the therapy groups themselves. Furthermore, conducting these kinds of programmes in different settings may be a time- and cost-efficient implementation option (Liljedahl et al., 2019).

Although these results are hopeful, our second conclusion is that the empirical support for these programmes is still preliminary. This line of research has not developed as

much as it should, given the important implications for the whole family when a member has a problem as serious as BPD. In any case, these studies indicate that the development and implementation of intervention strategies for family members with BPD begins to gain relevance, in terms of the guidelines to follow to improve the family dynamics and, in turn, help to achieve patients' prompt recovery.

Nevertheless, these studies also have some limitations, given that so far there are only two randomized controlled trials (Bateman & Fonagy, 2018; Grenyer et al., 2018). The others are uncontrolled pilot studies or did not include a control group (Hoffman et al., 2005, 2007; Miller & Skerven, 2017; Regalado et al., 2011; Wilks et al., 2017), or they used an optimized TAU control group with three sessions of psychoeducation compared to a group receiving 12 sessions of DBT skills training (Flynn et al., 2017). Therefore, our third conclusion would be the need to improve the methodological quality of this line of research by using more rigorous designs with different active control conditions, including follow-up assessments with larger samples, and examining their impact on different relevant clinical targets. These types of studies would make it possible to draw firmer conclusions about the differential efficacy of the specific intervention strategies included in these programmes designed for family members.

Taking into consideration what has been achieved so far, we consider it necessary to make progress in a number of research topics. First, the specific programme components responsible for improvements need to be identified, and the relative effectiveness of the components should be determined (Hoffman et al., 2007).

Second, there is a surprising lack of studies that explore the psychopathology or limited skills of family members or exclude them from the intervention if they have psychopathology (Grenyer et al., 2018). These studies could provide a more detailed

analysis of the family members' different skills or gaps, in order to better orient and choose the intervention components. In this regard, the studies by the Fruzzetti group on validation skills in family members should be highlighted (Fruzzetti, Shenk, & Hoffman, 2005) because they showed that family invalidation can contribute to establishing and maintaining BPD.

Another question to examine in future research is whether it is more beneficial for interventions to be performed by volunteer family members who have already received them and been trained for this purpose, as in the FC programme (Hoffman et al., 2005, 2007), or by expert clinicians (Flynn et al., 2017). From a cost-benefit perspective, and taking into account the possible benefits if the effectiveness of the intervention is similar when applied by expert clinical personnel or by family members, we understand that it is important to make an additional effort in this direction and compare these two formats (groups led by family members vs groups led by clinicians). This would represent a step in the direction defended by Kazdin (Kazdin & Blase, 2011) regarding the types of intervention needed to reduce the burden associated with suffering from mental disorders – in this case, the possibility that the intervention could be applied by non-professionals.

In addition, with regard to relevant outcome measures, from our point of view, in order to state that an intervention for relatives is effective, it not only has to reduce the clinical symptomatology of the family members, but also the conflictive relationship between family members and patients, and achieve improvements in crisis management. In this regard, beyond the outcome measures with the greatest recognition to date (such as burden, grief, family climate, depression, anxiety, etc.), used by Fruzzetti's group (Fruzzetti et al., 2005), Bateman and Fonagy's proposal (Bateman & Fonagy, 2018) to consider the reduction in intra-family conflicts (crises, fights, distancing...) should be highlighted as a fundamental result. Moreover, it would also be necessary to evaluate an aspect that has not

been taken into account in any of the studies included in this review, namely, analysing whether the participation of family members in these programmes somehow leads to improvements in the patient him/herself or in his/her relationships in the family climate.

Furthermore, as mentioned in the introduction, many studies have been published on relatives of patients with other psychological problems. Undoubtedly, it can be enriching to analyse some of the intervention components that have been found to be useful for helping families with other serious psychological disorders, thus broadening the range of interventions for families of patients with BPD, which is currently quite limited.

Alternatively, the problem can be approached from a broader perspective, as in McCarthy, Lewis, Bourke, and Grenyer (2016), through community studies, offering interventions designed for patients and family members, but also offering training for other groups of professionals (teachers, counsellors, social workers, and educators) who might be in contact with this vulnerable population.

This work has some strengths. It is the first systematic review to analyse existing interventions specifically designed for relatives of patients with BPD that conforms to PRISMA guidelines and has a previous record in PROSPERO. It also has some limitations. Although we tried to be comprehensive in our search strategy, it is possible that some studies were not located and have not been included in this review. Moreover, programmes that only included family members in one-off sessions were excluded, as well as general community interventions that were not specifically designed for family members of patients with BPD. Finally, we were not able to perform meta-analytic calculations because only two randomized controlled trials were identified that reported efficacy data (Bateman & Fonagy, 2018; Grenyer et al., 2018). Therefore, future meta-analyses are warranted when there is a minimum number of studies to conduct them.

In this work, we have tried to draw attention to the importance of supporting and helping family members and relatives of patients with BPD. Given the seriousness of the disorder and the significant burden for the family, it is necessary to think of helpful strategies for families and make it possible to achieve faster and more consistent patient recovery and better family dynamics. In conclusion, it is fundamental to focus attention, work, and resources on designing, developing, and testing specific interventions for family members of people with BPD. Currently, this line of research has only just begun, and the present study tries to make a modest contribution to its advancement.

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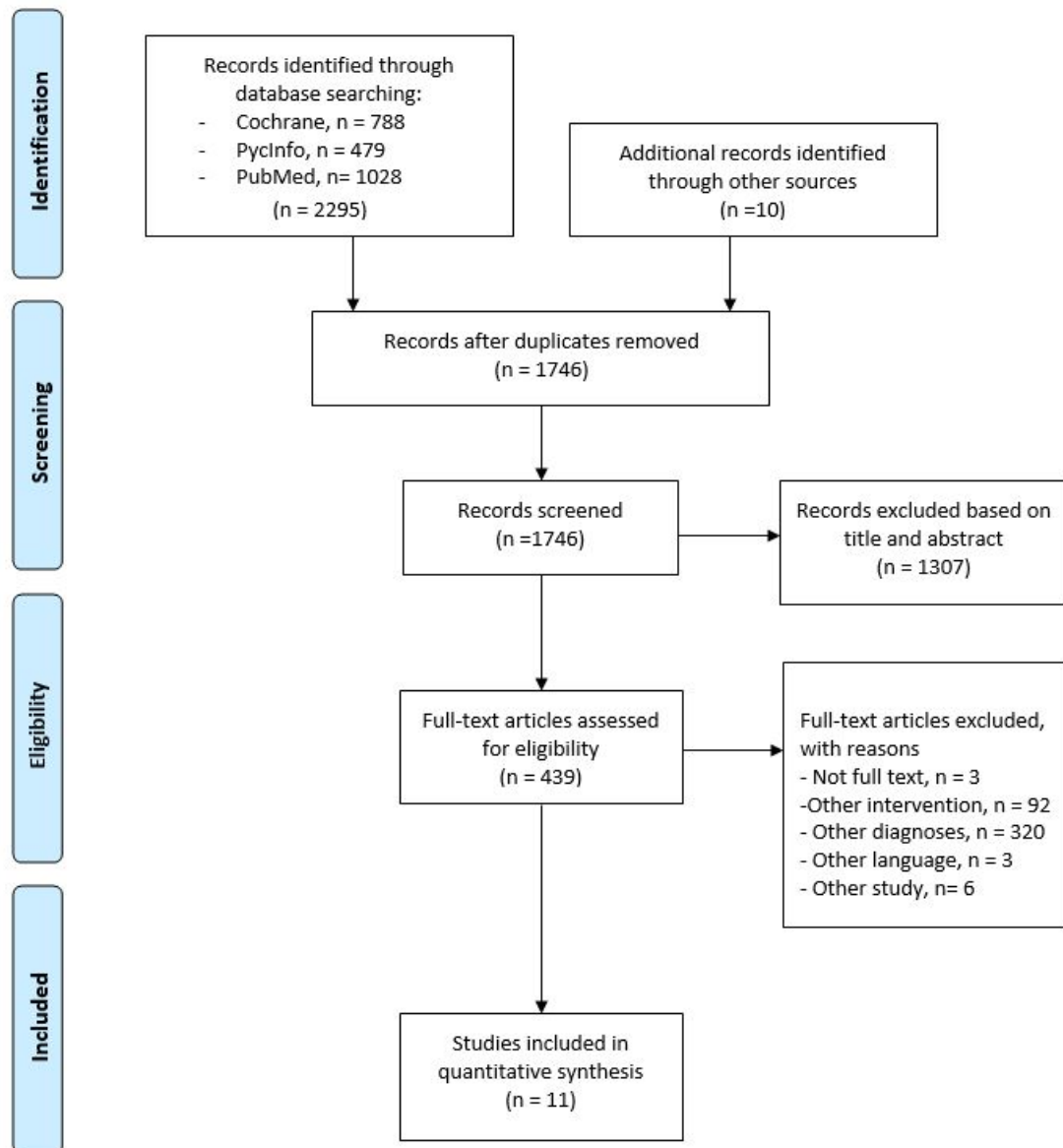
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Figure 1. Flowchart of the process of identifying and selecting studies.



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit www.prisma-statement.org.

Table S1. Characteristics of the included studies

Intervention	Objective	Participants & relative type	Mean age (SD)/ % female	Design	Intervention description	Intervention content	Who applies the intervention & setting	Theoretical model	Outcome measures	Effect sizes reported	Limitations of the study	Summary of findings and follow-up
<p>“Family connections (FC)” (Hoffman et al., 2005)</p>	<p>To assess changes in problematic constructs for family members:</p> <ul style="list-style-type: none"> - Burden - Depression - Grief - Mastery 	<p>44 family members:</p> <ul style="list-style-type: none"> - 39 parents <ul style="list-style-type: none"> o 27 mothers (61.4%) o 12 fathers (27.3%) - 4 spouses/partners <ul style="list-style-type: none"> o 2 husbands o 1 wife o 1 partner (9.1%) - 1 sibling (2.3%) 	<p>55.5 (10.0)/ N/A</p>	<p>Pilot study: Pre-post-6 months follow-up study (one group)</p>	<p>12-week education programme based on standard DBT and DBT for families. 2 hours per session.</p> <p>FC provides a forum in which participants can build a support network.</p>	<p>6 modules:</p> <ol style="list-style-type: none"> 1) Information and research on BPD 2) Psychoeducation of BPD 3) Individual and relationship skills 4) Family skills 5) Accurate and effective self-expression (to validate) 6) Problem management skills 	<p>Trained family members who, after completing the required training course, conduct groups in their own areas.</p> <p>Community setting</p>	<p>The stress-coping-and-adaptation (SCA) model (Lazarus & Folkman, 1984) and DBT</p>	<ul style="list-style-type: none"> - BAS - PFBS - CES-D - GAS - Mastery Scale 	<p>From Pre-to Post;</p> <ul style="list-style-type: none"> - BAS: d = .28 - GAS: d = .45 - Mastery Scale: d = .58 	<ul style="list-style-type: none"> - It is a pilot study with a small sample size - No control group (longer follow-ups must be collected) 	<ul style="list-style-type: none"> - Significant reductions in grief and burden, and a significant increase in mastery. Changes were maintained at 6 months post baseline.

<p>“Family connections (FC)” (Hoffman et al., 2007)</p>	<p>Replication and extension study of FC (Hoffman et al., 2005)</p> <p>To assess the impact of the FC program on the well-being of BPD carers as well as sex differences.</p>	<p>55 family members:</p> <ul style="list-style-type: none"> - 77% parents <ul style="list-style-type: none"> o 56% mothers o 21% fathers - 9% spouses - 2% partners - 5% children - 7% siblings 	<p>53.40 (8.84)/67 (n = 38)</p>	<p>Replication study: Pre-post-3 months follow up study (one group)</p>	<p>The same description of the original FC study (Hoffman et al., 2005)</p>	<p>The same content of the original FC study (Hoffman et al., 2005)</p>	<p>The same as in the original FC study (Hoffman et al., 2005)</p>	<p>The same as in the original FC study (Hoffman et al., 2005)</p>	<ul style="list-style-type: none"> - BAS - PFBS - CES-D - GAS - Mastery Scale 	<p>N/A</p>	<ul style="list-style-type: none"> - The effect sizes are generally modest for most outcome variables. - It is not an RCT - Important to compare the FC programme to an alternative programme-longer follow-up is desirable. - Important to examine the impact on the person with BPD - The relative importance of the FC components has not yet been identified. - The optimal length of the programme is not known. 	<ul style="list-style-type: none"> - Significant improvements in all well-being variables and depression. - Outcomes for male vs female participants were comparable, except for grief (women remained higher than men) - Changes were maintained at 3 months post baseline.
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<p>“Group of skills for families and close relatives of people with BPD” (Regalado et al., 2011)</p>	<p>To evaluate a standardized group intervention for individuals with a family relative diagnosed with BPD or suffering from severe emotional dysregulation, impulsive behaviour and interpersonal conflict.</p>	<p>42 family members: - 92.5% parents - 2.5% spouse/partner - 5% other relative</p>	<p>53.7 (11.8)/58.1</p>	<p>Exploratory research. Two phases: 1. Descriptive analysis of the sample. 2. Pre-experimental design of pre-post measurement</p>	<p>12 structured weekly sessions (2 hours).</p>	<p>10 modules: 1) Interpersonal relationships 2) Validation 3) Basic topics of behavioural psychology 4) Commitment strategies 5) Problem solving 6) Personal limits 7) Tolerance of discomfort 8) Coping with risky behaviours 9) Radical acceptance 10) Dialectics</p>	<p>Delivered two psychotherapists trained in DBT. Clinical setting (Fundación Foro para la Salud Mental)</p>	<p>DBT</p>	<p>- ZBI Zarit Burden Interview - SCL-90R</p>	<p>From Pre-to Post; - Degree of burden was significantly greater for participants whose family members had been hospitalized (Md = 44; n = 25) than for those that had never been hospitalized (Md = 35; n = 15). The difference was statistically significant with a medium effect size (z = -1.9; p = 0.45, r = 0.3) - Participants whose family members with TLP had attempted suicide once or more (Md = 1.5; n = 18) present</p>	<p>- It does not include a control group, which prevents extracting causal inferences between the intervention and the final assessment of symptoms.</p>	<p>- Significantly higher rates of burden, distress and family conflict among the subjects whose family relatives had previous suicide attempts and hospitalizations. - Reduction in level of burden, psychological distress and somatic symptoms.</p>
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										greater severity of symptoms, unlike participants whose family members with TLP had never attempted suicide, (Md = .86; n = 22). The difference was statistically significant with a medium effect size ($z = -2.05$; $p = 0.04$, $r = 0.32$).		
<p>“Family skills training in dialectical behaviour therapy” (DBT-FST). Ekdahl, Idvall, & Perseus, 2014).</p>	<p>Family skills training in DBT. Combining qualitative and quantitative approaches.</p> <p>To describe significant others’ experiences of DBT-FST, their life situation before and after, and measurement</p>	<p>70 family members Group without clinical relevant symptoms (n = 51) Group with clinical relevant symptoms (n = 19)</p>	<p>N/A/60 (n = 42)</p>	<p>The study had a descriptive mixed-method design. The researchers collected and used both qualitative and quantitative data Pre-post-3 – 6 to 8 months follow-up</p>	<p>DBT-FST was carried out in groups with six to eight participants during a 2½ hour session, once a week for 10 to 12 weeks. The sampling for the study was consecutive.</p>	<p>1) Interpersonal effectiveness 2) Mindfulness skills 3) Emotion regulation 4) Distress tolerance 5) Validation</p>	<p>Psychiatrists applied the intervention; all of them were trained in DBT. The study was conducted in a child-and-adolescent psychiatry unit. During the 2-year project period, DBT was implemented as treatment</p>	<p>DBT-FST (Hoffman, Fruzzetti, & Swenson, 1999).</p>	<p>- HAD - Free text answer questionnaire. - Group Interview questions</p>	<p>- N/A</p>	<p>- Small number of participants - The absence of equivalent and concurrent control group - There might also be a selection bias - All significant others in the present study are parents (or in one case a grandparent).</p>	<p>- The family members learned useful strategies helpful in daily life. This leads to better health for the patients. - No significant differences were found before and after in depression and anxiety, for the group as a whole. The subgroup with clinical relevant</p>

	of their levels of anxiety and depressive symptoms.			study (one group)			for BPD patients. The adults who accepted participated in DBT-FST during the same period their children participated in DBT treatment.					symptoms at baseline showed significant decrease of depression and anxiety symptoms at follow-up. - The results indicate a gender difference: women show a higher degree of both anxiety and depression symptoms before and after intervention.
“Family connections (FC)” (Flynn et al., 2017)	To compare the 12-week FC with a 3-week optimized treatment-as-usual (OTAU) programme, and to carry out a long-term follow-up with individuals who completed the FC programme.	80 family members: - FC (n = 51) o 29 parent (57%) o 14 spouse/partner (27%) o 8 other (16%) - OTAU (n = 29) o 14 parents (48%) o 9 spouse/partner (31%) o 6 other (21%)	FC: N/A/55 (n = 28) OTAU : N/A/45 (n = 13)	Non-randomized controlled study: Pre-post 3-, 12- or 19-month follow ups Participants went directly into the FC programme if places were available; otherwise they entered the OTAU programme.	FC: The same description of the original FC study (Hoffman et al., 2005) OTAU: three didactic group sessions of psycho-education (2 hour blocks over 3 weeks)	FC: The same content of the original FC study (Hoffman et al., 2005) OTAU: 3 sessions: 1) Information about BPD, the DBT model 2) DBT skills 3) Self-care and guidance on how to respond to a loved one with emotional and behavioural	Facilitated by clinical psychologists, all of whom were trained in DBT and FC. The co-facilitators varied between clinical psychologists and family members who had completed the FC programme and FC leader training Public health setting.	The same as in the original FC study (Hoffman et al., 2005)	- BAS - GAS - CES-D - PMS	- N/A	- It uses an uncontrolled, non-randomized design, making it difficult to determine whether changes were wholly due to the intervention. - There is a discrepancy in the duration of the intervention between the two conditions that limits the comparability	- FC group: significant improvement with respect to all measures. -The intervention effect was statistically significant for total burden and grief. - Improvements were maintained at follow-ups. - Intervention drop-out rates were similar in both groups.

						dysregulation					between the two groups. - Members undergo a simultaneous treatment of DBT, therefore the results may have been mediated by the stage they are in.	
“DBT skills group” (Wilks et al., 2017)	To investigate the feasibility and preliminary outcomes of a 6-month DBT skills training for family members of individuals with behavioural disorders: anxiety (60%), depression (60%), BPD (40%), as well as post-traumatic stress disorder (25%).	20 family members (relatives or spouses)	54.75 (10.31/60)	Uncontrolled pre-post treatment design	6-month DBT skills group that met for 1.5-hour weekly sessions.	Intervention only contains the skills groups component of standard DBT. Modules: 1) Mindfulness (2-week module) 2) Distress Tolerance (6-week module) 3) Interpersonal Effectiveness (6-week module) 4) Emotion Regulation (7-week module)	Two therapists, a leader and a co-leader taught each group, in line with standard DBT skills training. Community setting	DBT	- IIP-PD-25 - FAS - CGSQ-SF7 - DERS - PHQ-9 - STAI - PSRS	From Pre-to Post; - IIP-PD-25: d = 1.14 - FAS: d = 1.10 - CGSQ-SF7: d = 1.87 - DERS: d = 1.51 - PHQ-9: d = .62 - STAI-State: d = -.29 - STAI-trait: d = .28 - PSRS: d = 1.39	- Lack of a control group with which to compare family members' changes in outcomes. - It did not assess for other interventions the family members might have utilized while in the DBT skills training group (e.g. psychotropic medication, outside psychotherapy). - Nearly half of all participants were lost to follow-up. - The sample lacked	- Significant reduction in the index of emotion dysregulation, carer strain, interpersonal problems, perceived stress reactivity, and improvement in family attitudes. - No change from pre- to post assessment for measures of anxiety and depression.

											diversity and the findings may not be generalizable to lower-income, less educated or racial minority populations.	
<p>“Making sense of borderline personality disorder (MS-BPD)” (Pearce et al., 2017)</p>	<p>To evaluate the effectiveness of MS-BPD psychoeducation group intervention for the family and friends of youth with BPD features.</p>	<p>23 family or friends (carers):</p> <ul style="list-style-type: none"> - 19 Parents <ul style="list-style-type: none"> o - 15 mothers (65.2%) o - 4 fathers (17.4%) - 2 grandparents (8.7%) - 1 partner (4.3%) - 1 foster carer (2.9%) 	<p>49.95 (9.04)/69.6</p> <p>*one individual who declined to nominate a gender (4.3%)</p>	<p>Pre- and post-intervention, repeated-measures design</p>	<p>Psychoeducational group therapy for family and friends of youth with BPD. Three two-hour sessions (over three consecutive weeks).</p>	<p>Topics covered:</p> <ul style="list-style-type: none"> - Features of personality disorder - Diagnosis - Causes - Treatment - Interpersonal skills - Relationship patterns - Self-care 	<p>Two clinicians and a family peer support worker (for the final session).</p> <p>Youth mental health service for youth</p>	<p>Individual cognitive analytic therapy (CAT)</p>	<ul style="list-style-type: none"> - BAS - K-10 - PDKASQ 	<p>From Pre-to Post;</p> <ul style="list-style-type: none"> - Small to medium effect size for the overall decrease in burden (d = .48) - Medium effect size for the subjective decrease in burden (d = .52) - Large effect size for the personality disorder knowledge increase (d = 1.33), post-participation in the MS-BPD group intervention. 	<ul style="list-style-type: none"> -The absence of a control condition - No follow-up time points - Did not account for potential group clustering and assumed that all MS-BPD groups were the same 	<ul style="list-style-type: none"> - Significantly decreased subjective burden and increased personality disorder knowledge - Objective burden and distress remained unchanged.

<p>“Family skills programme” (Miller & Skerven, 2017)</p>	<p>To evaluate the effectiveness of a family-oriented DBT programme, called Family Skills.</p>	<p>70 family members: - 47 parents (67.1%) - 9 spouse/partner (12.9%) - 1 grandparent (1.4%) - 1 sibling (1.4%) - 12 unreported (17.1%)</p>	<p>N/A/57.1 (n = 40)</p>	<p>Pilot study</p>	<p>Nine sessions of a family-oriented DBT programme (24 content hours). Initial 8 hr workshop, followed by eight 2 hr, biweekly sessions.</p>	<p>Modules: 1) Mindfulness 2) Validation 3) Interpersonal effectiveness 4) Emotion regulation 5) Radical acceptance</p>	<p>DBT-trained psychologist, and co-facilitated by a graduate student. Naturalistic setting</p>	<p>DBT</p>	<p>- BDI-II - BHS - BSI - BAS</p>	<p>From Pre-to Post; - BDI-II: moderate (almost large) effect - BHS: large effect size - BSI: large effect size - BAS: small effect sizes</p>	<p>- No control group - No cohort effects - Homogeneous sample - Small sample size - Attrition occurred and data were not complete</p>	<p>- Significant decreases over time in depression, hopelessness and interpersonal sensitivity.</p>
<p>“Mentalization-based families and carers training and support programme (MBT-FACTS)” (Bateman & Fonagy, 2018)</p>	<p>To report data about the efficacy of a mentalization-based intervention for families or significant others living with or supporting a person with BPD</p>	<p>56 family members/significant others: 37 children 17 partners 3 other</p>	<p>Immediate intervention: 49 (N/A)/52 (n = 15) Delayed intervention: 53 (N/A)/55 (n = 15)</p>	<p>Delayed-treatment RCT 2 groups: immediate mentalization-based families and carers Training and support group versus delayed intervention</p>	<p>Supportive and –skills-based programme consisting of five 1.5 to 2 hr evening meetings, delivered by trained family members.</p>	<p>It covers the following five topics: (1) Introduction: What is BPD?: descriptive characteristics of BPD (2) Mindfulness and mentalizing: the two concepts, and practice of mindfulness techniques and mentalizing talk in the interpersonal process. (3) Mentalizing: role plays based on the problems being experienced by the families. (4) Mentalizing and empathic</p>	<p>Trained family members. Anna Freud National Centre for Children and Families, London, United Kingdom</p>	<p>The implications of the impact of family conflict on mentalizing and the desirability of avoiding ineffective mentalizing interactions provided the rationale for the approach.</p>	<p>-Daily incident diary -BDI -STAI -BAS - WEMWBS -SCORE-15 index of family function and change (Stratton, Bland, Janes, & Lask, 2010) -FES</p>	<p>- N/A</p>	<p>- There was no direct information from the patients themselves. - The cross-over design did not allow long-term follow-up of group differences. - The study is based on self-report. - There were no direct observations to indicate that the nature of family interactions had changed.</p>	<p>- Family members in immediate intervention showed a significant reduction in reported adverse incidents between themselves and the identified patient in the second phase of treatment compared with those randomized to delayed intervention. - Analysis of the rate of change indicated a significantly steeper decline for the immediate-treatment group</p>

						validation: developing the capacity to see things from the other person's perspective. (5) Problem solving and review: the use of mentalizing techniques to enhance basic problem solving.						compared with the delayed. - Family functioning and well-being improved more in the immediate-treatment group; changes were maintained at follow-up. - There were no differences in depression, total anxiety and total burden; both groups showed improvement in all measures.
"Staying connected" (Grenyer et al., 2018)	To study the efficacy of a "staying connected" intervention in a randomized controlled trial compared to waiting list.	68 carers: - Intervention (n = 33) - Waiting list (n = 35)	Intervention: 54.18 (9.72)/63.6 (n = 25) Waiting list: 54.14 (9.72)/68.6 (n = 24)	RCT with pre- and post-intervention, and follow-up in 12 months	The intervention comprised 16 hours of contact delivered face-to-face over 10 weeks. Initially, participants engaged in a 1-day psychoeducation group, followed by four 2-hour group sessions every 2 weeks.	Focused on: - Improving relationship patterns between carers and relatives with BPD - Psychoeducation about the disorder - Peer support and self-care to reduce burden	Led by a team of PhD-level clinical psychologists with specialized training and supervised clinical experience in the treatment of personality disorders. Mental health services	Relational model of personality disorder (Bailey & Grenyer, 2014; Project Air Strategy for Personality Disorders, 2011)	- MSI-BPD-C - BAS - DAS-4 - FES - MHI-5 - TFQ	Time × Group Interactions: - BAS: d = -.14 - DAS-4: d = .78 - FES: d = 1.40 - MHI-5: d = -.36 - TFQ-Over-involvement: d = -.35 - TFQ-Criticism: d = -.66	- They relied on the carer reports of personality disorder and other diagnoses prior to entry into the study, rather than our team performing the diagnosis - They excluded the intervention of the family members with psychopathology. Programme efficacy and	- Improvements in dyadic adjustment with their relative, greater family empowerment, and reduced expressed emotion, sustained after 12 months. - Improvements in carers' perceptions of being able to play a more active role, such as interacting with service providers.

											outcome were assessed through self-report questionnaires as opposed to interviews	
Family Connections (FC) in different settings (Liljedahl et al., 2019)	To evaluate the results of the DBT-S (FC-S) approach compared with an intensified weekend FC model developed for family members whose relatives are in DBT-R (FC-R); and to evaluate outcomes of FC-R for families with loved ones returning home from DBT-R	82 family members, 34 of whom completed the FC-S programme and 48 of whom completed the FC-R programme - 61 parents (74.4%) - 9 siblings (11%) - 7 friends (8.5%) - 5 partners (6.1%)	51.69 (14.44)/57.32	Non-randomized comparison study with pre- and post-treatment, and at six- to seven-month follow-up	FC was adapted to be delivered over two intensive weekends split by 1 month (FC-R) compared to the usual approach, which was delivered weekly for 12 weeks (FC-S). The intervention is the same as described in the original FC study (Hoffman et al., 2005)	FC: The same description as the original FC study (Hoffman et al., 2005)	Given by therapists, all of whom were trained in DBT and FC. Clinical setting	The same as the original FC study (Hoffman et al., 2005).	- BSI - BAS - QOLI - KIMS - QAFM - FCS - Global family functioning (using the equal weights method)	- N/A	- Non-significant findings might be related to the sample size. - The results cannot be generalized, since the treatment received by the patient with BPD is unknown. - The absence of a control group prevents causal conclusion being drawn. - There were no ratings of DBT quality/adherence, so one cannot be sure whether treatment was better in one condition.	- Participants who received FC reported lower mental health difficulties, lower perceived burden of caring and higher global family functioning. These improvements persisted for as long as six to eight months following the post-test, independent of the intensity

Note. Studies are presented in chronological order by year of publication. SD: Standard Deviation; FC: Family Connections; N/A: Not Available; Pre: Pretreatment; Post: Post-treatment; DBT: Dialectical Behaviour Therapy; BPD: Borderline Personality Disorder; BAS: Burden Assessment Scale (Reinhard, Gubman, Horwitz, & Minsky, 1994); PFBS: Perceived Family Burden Scale (Struening et al., 1995); CES-D: Revised Centre for Epidemiologic Studies Depression Scale (Radloff, 1977); GAS: Grief Scale (Struening et al., 1995); Mastery Scale (Dixon et al., 2001); RCT: Randomized Controlled Trial; ZBI Zarit Burden Interview (Zarit, et al., 1980); SCL-90R: Symptom Checklist (Derogatis, 1994); HAD: Hospital Anxiety and Depression Scale (Bjelland, Dahl, Haug, & Neckelmann, 2002); OTAU: Optimized Treatment-as-usual; PMS: The Personal Mastery Scale (Pearlin et al., 1981); IIP-PD-25: Inventory of Interpersonal Problems–Personality Disorders (Kim & Pilkonis, 1999); FAS: The Family Attitude Scale (Kavanagh et al., 1997); CGSQ-SF7: Caregiver Strain

Questionnaire–Short Form 7 (Brannan et al., 2012); DERS: The Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004); PHQ-9: Patient Health Questionnaire-9 (Kroenke et al., 2001); STAI: State-Trait Anxiety Inventory (Grös et al., 2007); PSRS: Perceived Stress Reactivity Scale (Schlotz et al., 2011); K-10: The Kessler Psychological Distress Scale (Kessler et al., 2002); PDKASQ: Personality Disorder Knowledge, Attitudes and Skills Questionnaire (Bolton et al., 2010); BDI-II The Beck Depression Inventory II (Beck, Steer, Ball, & Ranieri, 1996); BHS: The Beck Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974); BSI: The Brief Symptom Inventory (Boulet & Boss, 1991; Derogatis & Spencer, 1982); WEMWBS: Warwick–Edinburgh Mental Well Being Scale (Tennant et al., 2007); MSI-BPD-C: McLean Screening Instrument for BPD–Carer Version (Zanarini et al., 2003); DAS-4: Dyadic Adjustment Scale–4 (Sabourin, Valois, & Lussier, 2005); FES: Family Empowerment Scale (Koren, DeChillo, & Friesen, 1992); MHI-5: Mental Health Inventory–5 (from the Medical Outcomes Study Short Form Health Survey (SF-36; Berwick et al., 1991); TFQ: The Family Questionnaire (Wiedemann, Rayki, Feinstein, & Hahlweg, 2002); DBT-S: Standard Dialectical Behaviour Therapy; FC-S: Family Connections, standard delivery (weekly for 12–14 weeks); DBT-R: Residential Dialectical Behaviour Therapy; FC-R: Family Connections, residential delivery (intensified); QOLI: Quality of Life Inventory (Frisch, Cornell, Villanueva, & Retzlaff, 1992); KIMS: Kentucky Inventory of Mindfulness Skills (Baer, Smith & Allen, 2004); QAFM: Questions About the Family Members (Hansson & Jarbin, 1997); FCS: Family Climate Scale (Hansson, 1997; Lundblad & Hansson, 2005).

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