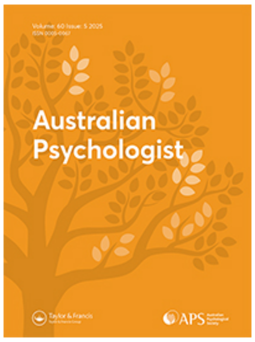

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ORIGINAL ARTICLE

Does dialectical behaviour therapy for adolescents improve carer experiences and outcomes?

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ABSTRACT

Objective: Evidence supports the effectiveness of Dialectical Behaviour Therapy for Adolescents (DBT-A) with emotional dysregulation and emerging evidence suggests it may also benefit participating carers. We investigated carer outcomes and feedback following participation in DBT-A as a support person.
Method: Carers ($N = 52$) participated in DBT-A with their young person at a community-based mental health service. A mixed-methods approach was used to collect quantitative self-report measures of depression, anxiety, stress, burden and expressed emotion at baseline, during and post-DBT-A and qualitative data post-DBT-A through semi-structured interviews ($n = 4$), transcriptions of DBT-A graduations ($n = 25$) and written feedback ($n = 19$).
Results: Statistically significant reductions were observed over time in burden ($\beta = -4.63$, $p = < .05$) and expressed emotion ($\beta = -3.13$, $p = < .05$), but not for depression, anxiety, or stress. Qualitative results supported the acceptability and success of the program for carers, with improvements in personal, lifestyle and family functioning highlighted.
Conclusions: Results supported the reduction of carer burden and subjective lifestyle improvement post-DBT-A participation. Future evaluations could incorporate carer outcomes to more comprehensively understand the benefits from DBT-A.

KEY POINTS

What is already known about this topic:

1. Carers experience high levels of burden when caring for complex presentations, particularly young people experiencing emotional dysregulation.
2. Emerging evidence supports DBT-A as beneficial for carers in addition to their young person.

What this topic adds:

1. Burden and expressed emotion reduced significantly in carers participating with their young person in DBT-A.
2. Carers provided overwhelmingly positive feedback of their personal experience in the DBT-A program.
3. Highlights the importance of including carer outcomes when considering broader community implementation of DBT-A

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Carer; parent; burden, dialectical behaviour therapy; emotional dysregulation; borderline personality disorder

Borderline personality disorder (BPD), characterised by emotional dysregulation, impulsivity and relationship instability (Kaess et al., 2014; Kranzler et al., 2016; Sharp & Fonagy, 2015) is increasingly recognised in adolescence and young adulthood (Chanen, 2015). Caring for young people with BPD symptomology is associated with high levels of carer burden, defined as the strain related to caregiving responsibilities (Liu et al., 2020). Parents (hereafter referred to as "carers" to recognise the nature of children living with guardians other than their biological or adoptive parents) of young people with BPD symptoms report high levels of distress (Lawn & McMahon, 2015) and experience greater carer burden than those caring for young people with other mental health conditions (Seigerman et al., 2020). Caring for a young person experiencing emotional volatility, risk taking behaviours (Jørgensen et al., 2021; Lawn & McMahon, 2015) and family environments with high expressed emotion (Bailey & Grenyer, 2015) have been associated with increased carer burden. Evidence suggests that interventions supporting these carers may improve family dynamic,

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reduce carer burden and negative mood states and assist in BPD symptom recovery within a young person (Guillén et al., 2021; Sutherland et al., 2020).

Dialectical Behaviour Therapy for Adolescents (DBT-A; Rathus & Miller, 2002), adapted from DBT (Linehan, 1993), is a therapeutic treatment program for chronic emotional dysregulation (including BPD symptoms) in young people (Fleischhaker et al., 2011; Gillespie et al., 2019; Rathus et al., 2015). DBT-A has shown reduction of self-harm and suicidal ideation in young people (Boustani et al., 2024; Kothgassner et al., 2021; Rathus et al., 2020) and improvements in mood symptoms over a variety of treatment settings (Bahji et al., 2021; Rathus et al., 2020). With assessed suitability (e.g., the carer is not a direct perpetrator of abuse or neglect), DBT-A can include the young person and their carer in multi-family group sessions (Miller, 2007; Rathus et al., 2020).

Flynn et al. (2020) reviewed carer participation in a DBT-A program, and reported significant reductions in carer burden, grief and stress pre-post. Further, Hare et al. (2024) reported decreased adolescent-reported criticism (e.g., criticism perceived by the adolescent from the carer), and Smith et al. (2023) reported significant reductions in distress and communication difficulties, alongside increased perceived openness and overall family functioning for carers. Evidence from alternative programs such as Family Connections™ (FC; Hoffman et al., 2005) – based on principles of DBT and targeted towards families of individuals diagnosed with BPD, have also reported reduction in carer burden (Boritz et al., 2021; Sutherland et al., 2020), burnout, guilt, subjective improvement in familial relationships (Guillén et al., 2021) and improvement in grief and coping for broad samples (Boritz et al., 2021). To date, recent real-world (i.e., community settings) evaluation of carer outcomes from DBT-A participation is limited (see Flynn et al., 2020; Hare et al., 2024; Smith et al., 2023). This research is important and serves to inform continued service provision for not only a vulnerable group (young people with BPD symptomology), but also carers experiencing associated poor mental health. The present study seeks to contribute to this emerging research area, providing the first evidence of carer benefit from DBT-A in Australia.

Carer outcomes before, during, and after DBT-A were captured using a mixed-methods design. Quantitatively, we predicted that carers would report decreases in depression, anxiety, stress, expressed emotion and burden following participation in DBT-A. Qualitative data were collected to fully capture the breadth of carer experiences, and develop an understanding of potential factors influencing carer symptom reduction across the program.

Materials and methods

Design

This study applied a sequential explanatory design, first collecting and analysing quantitative data, followed by qualitative data collection and analysis. This was a pre-post design embedded within an existing community service and thus was unable to include a control group.

Setting and program

Southern Youth Mental Health Services (SYMHS) is a community-based early intervention service for serious and emerging mental illnesses in at-risk young people (16–24 years old) in Adelaide, Australia. Over half of young people presenting to SYMHS do so with emotional dysregulation and engage in self-harm, as measured by the McLeans screening instrument for BPD (Zanarini et al., 2003) and case reviews by a SYMHS mental health specialist (MHS; Num & Woods, 2023). SYMHS provides DBT-A to increase evidence-based psychological intervention for eligible young people and their families. The program follows the structured DBT-A Skills Manual for Adolescents (Rathus & Miller, 2015) and includes 2-h weekly group sessions over 21–24 weeks facilitated by trained clinicians (see Supplemental Materials for intervention structure). The intervention focuses on skill-building in five modules coinciding with the clinical needs consistent within Linehan's (1993) biosocial model of treatment for BPD. The four modes of DBT proposed by Linehan (1993) were available to clients; group intervention, individual sessions (with an internal youth MHS or external therapist), with a weekly SYMHS consultation team meeting, and between-sessions phone coaching occurring through the individual therapist (supplemented by after-hours mental health crisis support services). Attendance of one carer per dyad was permitted to not exclude young people with one carer from participating, or to support families that had to maintain work during the program. A maximum of six family dyads (carer and young person) were enrolled in each group, with rolling entries allowing new dyads to join at the start of each module. This can create variation in the 21–24 group session duration based on the duration length of the mindfulness module repeated at each rolling entry point. Both young person and carer acquire skills in session, report on weekly homework to strengthen skills and then practice generalising these skills within the psychosocial and family environment. In the final session, families attend a graduation ceremony. All group members (facilitators, carers and young people) received opportunities to provide comments to graduating members, in addition to sharing program opinions and feedback.

Participants

Participants (*N* = 52) were a community sample of carers participating with their young person in DBT-A at SYMHS between October 2020 and September 2021. Telehealth group sessions occurred for a maximum of 8 weeks during this time when COVID-19 restrictions capped in-person attendance numbers. Eleven (20.4%) self-identified as male (fathers, including 1 male non-family carer), and the remaining 43 (79.6%) self-identified as female (mothers including 1 aunt and 1 grandmother), ranging in age from 35 to 63 years. No participants refused consent or withdrew data after participation. Seventy-one percent of carer-young person dyads completed the DBT-A program during this recruitment period (Num & Woods, 2023). In accordance with DBT-A considerations (Rathus & Miller, 2015) one parent for each young person was invited to attend, to maintain a balance of both young people and carer participants. Eligibility included the carer residing with the young person and having an integral role in their lives. Carer exclusions included estrangement with or abuse of the young person or severe or unmanaged mental health conditions that could impact their involvement or attendance. However, no carers met these criteria. Eligible young people required a diagnosis of BPD or presenting with 3+ diagnostic traits (one of which being recurrent suicidal or self-harm behaviour; Num & Woods, 2023).

Measures

Quantitative measures of carer outcomes were administered at baseline (pre-DBT-A), mid-program (weekly session 10–12) and post-program (at the graduation ceremony). Qualitative feedback was captured post-program.

Depression, anxiety and stress symptoms

Carers completed the Depression, Anxiety and Stress Scale–21 Items (DASS-21; Lovibond & Lovibond, 1995), a measure of depression, anxiety and stress symptoms, at baseline, group mid-point and final DBT-A session. Separate subscale scores were calculated for this study. Each subscale consists of seven items on a 4-point scale, where respondents rate the extent to which they have experienced a symptom in the past week – ranging from 0 “did not apply to me at all” to 3 “applied to me very much, or most of the time”. The depression scale assesses dysphoric mood states (e.g., I felt downhearted and blue), the anxiety scale assesses arousal states (e.g., I was aware of dryness in my mouth) and the stress scale assesses negative emotional reactions to stressors (e.g., I found it hard to wind down). Higher scores are indicative of more frequent symptology (Osman et al., 2012), with increasing severity classifications as scores increase (*normal, mild, moderate, severe* and *extremely severe*). The current sample showed good internal consistency within each subscale (Depression Cronbach’s α = .92; Anxiety Cronbach’s α = .86; Stress Cronbach’s α = .88).

Burden symptoms

Carers completed the Burden and Assessment Scale (BAS; Reinhard et al., 1994) at baseline, group mid-point and final DBT-A session to assess the level of burden experienced by the carer of an individual with a mental illness. The BAS contains 19 items rated on a scale of 1 “not at all” to 4 “a lot”. Ten items assess objective burden such as financial problems, limitations on personal activity, household disruption and social interaction. Nine items assess subjective burden such as aspects of feelings, attitude and emotions expressed about caregiving experiences. Responses are combined, with total scores ranging from 19 to 76 and higher mean scores indicating higher levels of burden (Ivarsson et al., 2004). The measure has adequate validity and good internal consistency (Cronbach’s α = .89 to .91; Reinhard et al., 1994), and excellent internal consistency (Cronbach’s α = .91) in this sample.

Expressed emotion

Participants completed the Level of Expressed Emotion Scale – Relative Version (LEE-R; Cole & Kazarian, 1988) to measure perceived emotion from the carer towards the unwell relative. Items measure perceived lack of emotional support, perceived intrusiveness, perceived irritation, or perceived criticism towards the respondents unwell relative. Participants rate their level of agreement with each statement on a 4-point scale, ranging from either 1 “untrue” to 4 “true”, or reverse-scored 1 “true” to 4 “untrue”. High scores on the LEE-R indicate high levels of criticism, hostility and emotional over-involvement in the unwell relative’s life. The standard version (LEE) shows good internal consistency (Cronbach’s α = .91) and acceptable internal validity (Gerlsma et al., 1992), though formal psychometric properties of the LEE-R have yet to be explored. In the current sample, the LEE-R showed low, but acceptable internal consistency (Cronbach's α = .62; Taber, 2018).

Interview guide

An interview guide (provided in Supplemental Materials) was developed to create rapport and understand participants' subjective perception of DBT-A using a semi-structured approach commonly used in qualitative research (Percy et al., 2015). The interviewer (AB) had an academic background in psychology, experience working in youth mentoring and no prior relationship with the SYMHS DBT-A program or its participants. All interviews were deidentified prior to qualitative review. All other authors reviewed interview questions prior to administration and were aware of reflexive practices to minimise the impact of their background on the research process.

Feedback form

A carer feedback form developed at SYMHS allowed carers to provide feedback on the DBT-A program at the graduation ceremony (see Supplemental Materials). Six open-ended questions related to the referral process, program content, potential improvements, inclusion of carers, and if the individual would recommend the program to other families (e.g., *Can you tell me about anything that personally affected you [either positively or negatively] in the program?*). Two questions were scored on a Likert scale of 1–10 (with higher scores indicating greater agreement) and asked participants to rate how much their young person learnt, how much they learnt, and how likely they were to use skills in future. Questions were developed based on literature review and consultation with clinical experts.

Procedure

Over the 11-month recruitment period, 52 families accepted and completed treatment within the SYMHS DBT-A program and completed baseline and mid-treatment measures. At the final graduation session, 25 (46%) carers provided verbal feedback on their experience, and 19 (42%) completed a post-program written feedback form. Data collected through these two avenues was initially provided voluntarily by participants and was subsequently deidentified by the first author (AB) prior to analysis. All graduate carers were contacted in August 2023 with four accepting an invitation to be interviewed about their experiences.

The project was classified as continuous improvement by the Southern Adelaide Clinical Human Research Committee (reference number 4500), building on two ongoing quality improvement projects (reference numbers 2011 and 2076). All participants provided informed consent prior to participation and were advised that they could cease participation at any time.

Statistical analysis

Quantitative analysis

Significance of mean variable change over the three timepoints (pre, mid, post) in the BAS, DASS-21 and LEE-R data were analysed using multilevel mixed-effects regression models (MLM) in RStudio Version 2023.26 (RStudio Team, 2020), to accounts for the nested structure of repeated measures within participants. For each outcome variable, time was assigned as a fixed effect with age and gender as covariates, allowing for random slopes and intercepts for time nested within participants. Level 1 analysis examined individual-level effects (change in outcomes across DBT-A), and level 2 examined group-level effects (consistency in outcomes across DBT-A) across all carers. Two participants were excluded from final analysis due to missing data in the LEE-R at both pre- and mid-program. Quantitative content from feedback forms was analysed descriptively. Sample size was determined based on the availability at SYMHS to offer the resource-intensive programs (up to 12 family dyads across two separate DBT-A programs at any one time), as opposed to prospective power calculations. Post-hoc power analysis indicated the study was adequately powered to detect medium ($n = 34$) and large ($n = 15$) effects, but underpowered for small effects ($n = 199$ required).

Qualitative analysis

Qualitative responses from the interviews, feedback forms and graduation ceremonies were analysed collectively using Braun and Clarke's (2006) reflexive thematic analysis framework to identify, analyse and report patterns on program feedback from a carer perspective. This framework highlights six phases; (1) familiarisation, (2) generation of initial codes, (3) theme searching, (4) reviewing themes, (5) defining themes and (6) narrative production. Qualitative analysis was conducted in NVivo by AB, with initially derived themes analysed by senior researcher LE or AO to confirm accuracy of review and avoid bias. All data was anonymised upon entry to NVivo, and all recordings or original copies of forms were securely destroyed. As content saturation is currently disputed (where patterns repeat in data, and no novel findings are emerging in continued analysis; Braun & Clarke, 2021), it was not sought in this study. The representation of data across multiple collection methods was specific to the area of carers of young people eligible for the DBT-A program – as such, the current study was deemed sufficient for a comprehensive analysis (Braun & Clarke, 2021).

Results

Quantitative findings

Assumptions were violated for quantitative measures but given no difference in results between transformed and untransformed data, results based on untransformed data are reported here. Real-world data is often skewed (Gonzalez-Blanks et al., 2020) and MLM is robust to skewed data, particularly when the data is in a nested, hierarchical structure (Goldstein, 2011), as in the current study.

Descriptive statistics (see Table 1) indicated that mean scores for depression and stress were within "normal functioning" as defined by the DASS-21 (Lovibond & Lovibond, 1995) clinical thresholds, at all three timepoints – mean scores of anxiety entered the threshold of "mild symptoms" at mid-DBT-A.

Table 1. Means (standard deviations) of outcome values over time.

	Pre (*N* = 52)	Mid (*N* = 17)	Post (*N* = 19)
Depression	3.90 (4.02)	4.88 (3.10)	3.68 (3.16)
Anxiety	2.64 (3.32)	4.71 (4.03)	2.89 (2.98)
Stress	6.90 (4.09)	7.18 (3.52)	6.73 (4.01)
Burden	47.74 (11.44)	47.00 (12.28)	39.89 (10.03)
Expressed Emotion	72.04 (12.66)	70.50 (11.8)	65.95 (9.41)

Note. Completion of outcome measures varied across timepoints, as indicated by *N*.

Symptom change

Multilvel mixed effects model outputs are shown in Table 2. A significant reduction of burden and expressed emotion was observed over time, and non-significant change in depression, anxiety and stress.

Table 3 shows the intercept, random slopes and random intercepts (with 95% CIs) for each outcome variable. All intercepts indicate the predicted value of the outcome variable pre-DBT-A. For all variables, the *SD* of the random slopes was close to zero, suggesting that individual trajectories of variable change over time were parallel. Further, random intercepts (and respective 95% CIs) indicate substantial variability in all pre-DBT-A variable values across participants.

Participant feedback of program

Participants who completed the feedback form post-DBT-A showed a mean response of 9.37 and 9.58 (range: 1–10) for "how much do you think you learnt from the group?" and "in the future, how likely are you to use any of the skills you have learnt?"

Qualitative findings

Analysis of qualitative data from interviews, carer feedback forms and graduation ceremonies generated

Table 2. Coefficients, SE and 95% CI of the fixed effect (time) on outcome variables.

			95% CI			
	β^a	SE	Lower	Upper	*p*	Conditional ICC[b]
Depression	−0.39	.31	−1.02	0.25	.22	.69
Anxiety	−0.09	.27	−0.62	0.45	.70	.67
Stress	−0.42	.41	−1.23	0.47	.32	.44
Burden	**−4.63**	.98	−6.6	−2.61	< .001	.69
Expressed Emotion	**−3.13**	1.15	−5.38	−0.88	< .001	.58

Notes. **Bold** values indicate statistically significant main effects.

[a] β is the coefficient of time.

[b] Conditional ICC was calculated to adjust for covariates with the formula: ICC = (adjusted variance between groups)/(adjusted variance between groups + variance within groups).

SE, standard error; CI, confidence interval; ICC, conditional intraclass correlation.

Table 3. Intercepts, random slopes and random intercepts for outcome values over time.

				95% CI[b]	
	β^a	*SD* (Random Slopes)	*SD* (Random Intercepts)	Lower	Upper
Depression	9.45	1.92×710^{-10}	3.04	2.31	4.00
Anxiety	6.73	2.88×10^{-9}	2.44	1.85	3.22
Stress	13.26	1.36×10^{-8}	2.47	1.71	3.56
Burden	75.53	2.19×10^{-11}	9.14	7.03	11.90
Expressed Emotion	90.26	4.40×10^{-11}	8.72	6.41	11.86

Notes. SD, standard deviation; CI, confidence interval.

[a] β represents the intercept.

[b] 95% CIs for random intercepts.

superordinate themes of acceptability, program structure, personal changes, and lifestyle changes outlined below.

Theme 1: carer experience and impact

Feedback across interviews, carer feedback forms and graduation ceremonies were overwhelmingly positive, describing the program as "*very beneficial*", as having "*changed [their] life*" and (*"[the program] heavily improved my wellbeing … I was fairly impacted by what I was going through"*).

All participants endorsed the personal success of the program, with suggestions that the program facilitated education of their young person's experience (e.g., *"DBT-A helped me to disentangle from what [their young person] was going through"* and *"it educated me an awful lot"*). The DBT-A program was suggested to reduce guilt and blame:

> So, for me personally, struggling with this diagnosis my child had and blaming myself and the guilt; being able to normalise that and realise along the program that it wasn't my fault, and how we get past all that. I didn't feel like it was my fault [after] and I could let go of that guilt. (P1 Interview)

All carer feedback forms indicated that they would recommend the program to other families, with comments concluding that the program provided skills to support their young person (*"it was well worth the effort for the tools to support my child")*.

Specific acceptance skills of mindfulness, wise mind, validation and radical acceptance, in addition to change-based interpersonal (FAST) skills of self-respect and self-prioritisation were frequently endorsed: (*"mindfulness was good as a calming technique for myself"* and *"it gave me a quiet moment during a busy day"*). In response to the feedback form item – "What was the most helpful thing you learnt in group or drop-in sessions?" – responses included:

> How to recognise if I was in emotional mind and then change my response to wise mind. Also, opposite action was very helpful. Also, the distress tolerance skills of putting my face in very cold water has been invaluable. I will look at my book often to help myself and my young person. (P14 Feedback Form)

Theme 2: program structure

Analysis showed that opinions of program structure were regularly mentioned, with program length and group format indicated as largely positive aspects of the program. While the program length was initially described as a "*hard slog*", participants agreed that the length was appropriate – ("*it needed to be that length, I think doing any less would've been doing a disservice*"). The group therapy aspect was endorsed as a valuable characteristic. One participant described the group environment as different from previous therapeutic experiences: "*DBT-A was very different from having your own therapy or program … you hear from other people … and see the parallels"*. Group therapy was also described as reassuring and validating:

> It was quite reassuring to know we weren't the only people in the world to be going through personal problems and things, and that there were other people there … you didn't mind opening up because others had their own reason for being there and they were opening up as well, so it definitely made it easier. I think, without being in a group, I would not have opened up nearly as much. (P3 Interview)

Similarly, participants highlighted that individual therapy would not have been as effective as the group approach (*"it would've been more combative … more defensive and more argumentative*").

Carer feedback forms indicated that that carer inclusion was highly valued in the course, as it helped carers and young people share learnings.

Participants frequently suggested additions to the program related to family inclusion and follow-up periods to extend learning to a wider group ("*it would have been good if my husband had been there as well")*. Further, skill regression and desire for a program "*refresher* "was frequently mentioned to maintain learned skills and behaviours from the program:

> The other things I would have loved is a bit of a follow up, whether it was 6 months or 12 months. I would have loved an opportunity to do a just a brief 4-week refresher – just a quick snapshot', this is what you learned', "this is where you are now", "where are you finding that you're struggling", or "where are you excelling"? And just doing that as a group again, I think would have been really nice. A checkpoint, I guess. (P1 Interview)

Several participants also indicated that carer/parent-only sessions would be desirable:

> It would be nice to have a session with parents only. I think some parents would like to say more than they feel they can [in front of their young people]. This would help to problem solve with [other carers'] thoughts and understanding. (P11 Feedback Form)

Theme 3: intrapersonal changes

Many participants highlighted a lack of knowledge prior to participation, with one carer stating they had "*serious misconceptions and apprehensions going in*". More broadly, participants shared that prior to participating in DBT-A, they lacked understanding of recognising their own extreme emotions and behaviours.

Further, use of DBT-A skills was indicated to have targeted many areas of their life and "*sunk in to make [them] a different person*". Despite participants involved in interviews having experienced prolonged breaks since their personal completion of the program, the longevity of skills was endorsed ("*it has been a while, but skills have embedded, and I just do them*"). Participants also shared personal changes in their behaviour (e.g., "*being more understanding*", "*listening more, I don't jump in …* " and "*emotionally separating*").

Improved emotional regulation as a result of the program was most frequently mentioned:

> I never realised that I was quite an emotional person too, not to [their child's] degree, but yeah, I could fly off the handle or you know, say things I probably didn't mean to say, which I tend not to do now. So, I tend to sometimes just walk away and like I said, not try and fix everything, which it what I used to be – the problem solver. So yeah, things like that definitely help me. I've just learned to let go a bit through the DBT, and just be calmer, I think. That's mainly what I got out of it. (P2 Interview)

Theme 4: interpersonal changes

Participants also shared the change DBT-A brought in both their family and wider life circles. DBT-A was described as life changing for both themselves and their families ("*it changed myself, my partner, and the rest of the family*"). Specifically, the therapeutic skills were reported to improve communication and understanding, reduce arguments and diffuse uncomfortable situations in the family environment.

Participants consistently described the widespread application of learned skills (e.g., "*skills have been transferrable to home, relationships, and work … I use them with everyone else in my life*" and *"I'm now more aware of the way I interact with everybody at work, at home, in my extended family and my friends"*).

Discussion

The present study is the first Australian investigation of carers before, during and after participation in a DBT-A group therapy program. Carers participating in DBT-A experienced a significant reduction in burden and expressed emotion, though no reduction was found for depression, anxiety, or stress. Feedback forms indicated that participants overwhelmingly agreed that they learnt a lot from the program and were very likely to use the skills in future. Qualitative results explored the complexities of carer feedback on the program, and showed the largely positive domains of feedback surrounding the acceptability, program structure, personal changes and lifestyle changes from DBT-A.

The observed reduction in burden has been similarly reported by carers participating in DBT-A through a community-based mental health service in Ireland (Flynn et al., 2020) and an FC group, with skill building and peer support for carers, similarly demonstrated a reduction in carer burden in Ireland (Flynn et al., 2017) and America (Hoffman et al., 2005, 2007). Conversely, a similar carer-focussed pilot intervention *Family Skills* did not report a significant reduction in burden (Miller & Skerven, 2017) – however, this was noted to have limited power to detect treatment effects.

Carers in the current study also experienced a significant decline in level of expressed emotion post-DBT-A, related to the relationship between the carer and their young person. There is limited research of the impact of DBT-A on the level of expressed emotion in carers. However, Smith et al. (2023) utilised the Parent Adolescent Communication Scale (PACS) and the Systemic Clinical Outcome and Routine Evaluation (SCORE-15) to explore similar constructs of quality of communication, familial strength and adaptability, and family interaction. Reductions in expressed emotion from carer interventions based on the context of the whole family environment, rather than DBT principles, have also been reported (Bateman & Fonagy, 2019; Grenyer et al., 2018). In the current study, qualitative feedback from carers suggested that the DBT-A program assisted in "empowerment", normalising their feelings, seeing "parallels" with other families, and allowing themselves to emotionally separate from their young persons' struggles. This aligns with the feelings of empowerment and the ability for carers to "take time out" and not focus on difficulties previously reported by Flynn et al. (2020). Carers also endorsed the acceptability and benefits of the DBT-A skills in both the program with other families and with real-world application consistent with Flynn et al. (2020). Our mixed-methods approach provides further insight into potential mechanisms of change for carers. For example, carers readily recalled skills from the acceptance-based modules; Mindfulness, Distress Tolerance, and Walking the Middle Path, as opposed to change-based modules; Interpersonal Effectiveness and Emotion Regulation, suggesting these components may be driving improvement in carer outcomes.

There was no significant change following DBT-A in outcomes with subclinical levels at baseline – depression, anxiety and stress. This is consistent with prior studies of carers that reported no improvement in depressive symptoms following DBT-A noted subclinical depression at baseline (Smith et al., 2023; Woodberry & Popenoe, 2008). Alternatively, studies reviewing FC reported significant reductions in depression post-treatment (Flynn et al., 2017; Hoffman et al., 2007). This suggests that, when associated depression symptoms are elevated pretreatment, carers involved in DBT-based programs can experience symptom reduction post-treatment. In contrast, carers in the current study had high mean scores for both burden and expressed emotion prior to program commencement, indicative of more severe symptoms with greater potential for improvement.

It is unclear whether the observed reductions in burden and expressed emotion and reported program acceptability, personal and lifestyle changes for carers are attributable to either direct DBT-A participation, improved carer-young person relationship or a result of natural symptom remission. While DBT-A has already demonstrated efficacy for young people with BPD symptoms (Gill et al., 2018; Gillespie et al., 2019; Rathus et al., 2015) and can enhance parent–child relationships (Rathus et al., 2015), carer feedback in the current study indicated change in functioning (e.g., guilt reduction and empowerment). The feedback often intertwined carer experiences with those of their young person, suggesting a strong connection to the young person's DBT-A experience. Ratnaweera et al. (2021) asked both adolescents and carers to evaluate a DBT-A program and reported themes of "relationship improvement" from both groups. Future research should extend this to qualitatively explore the related mechanisms of carer symptom reduction, and whether this may be attributed to the young persons' improvement. Implementing a similar approach, in addition to administration of relevant quantitative measures (e.g., the PACS and SCORE; Smith et al., 2023) could capture the mechanisms of carer outcomes. Randomised control trials comparing DBT-A either to treatment as usual or other therapy modalities, should also be considered where feasible, to ensure pre-post comparisons are capturing more than natural remission.

Limitations

There are several limitations of the current study. Participation by carers in the qualitative component was low but was largely limited by available carers who had already participated in the DBT-A program. DBT-A at SYMHS is the only program of its kind in Adelaide and is limited by the maximum number of family dyads in group (consistent with the manualised approach; Rathus & Miller, 2015), age of included young people (16–25), service demand and available resourcing. Therefore, recruitment into data collection avenues, self-report of symptoms and sample generalisability were naturally limited by intake – and may not be reflective of carers of younger children. Drop out was also observed at follow up, with a lack of carers responding to participate in qualitative interviews. This may impact qualitative results, as those with potentially negative experiences of the program may not have provided feedback. Quantitative results also reflect high attrition, as we analysed per protocol given limited sample size. Overall, this may present an overly favourable view of the impact of DBT-A on carers. Further, statewide COVID-19 healthcare restrictions affected five family dyads, resulting in an eight-week period of telehealth program delivery, before return to in-person sessions. Of note, 79% of the current study participants identified as female, which limits generalisability to other diverse groups, but is similar to other carer evaluations (76–100%; Flynn et al., 2020; Hare et al., 2024; Rathus et al., 2015, Smith et al., 2023). Future studies should consider; comprehensive collection of demographic information (e.g., postcode, working status, gender, etc.) to ensure generalisability of findings, review of homework completion, assessment of alternative modalities (e.g., in-person or telehealth) and promote data collection avenues.

As this was an evaluation of an existing service, long-term follow-up data was collected entirely through qualitative methods. Carers who previously participated in DBT-A were invited to provide feedback if they wished to. Themes indicated that the skills carers had learnt were still useful after an extended period post-DBT-A suggesting that quantitative outcomes should be evaluated at a longer-term follow-up (e.g., 3–6 months) to evaluate the potential longer-term impact on carers.

Conclusions

Involving carers in treatment for young people experiencing mental health concerns has been previously shown to be important in recovery. Yet, fewer research reviews the associated symptom recovery for participating carers. The current study is the first, to our knowledge, Australian evaluation of carer outcomes after participation in a DBT-A program. In terms of further evidence, carers reported improvements in several symptom domains and provided feedback supporting the positive effects for carers participating in DBT-A with their young person. Importantly, this supports the wider provision of family-inclusive approaches in mental health service delivery and ascertained benefits for two relevant groups.

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Data availability statement

The deidentified data that supports the findings of the current study are available from the corresponding author upon reasonable request.

References

Bahji, A., Pierce, M., Wong, J., Roberge, J. N., Ortega, I., & Patten, S. (2021). Comparative efficacy and acceptability of psychotherapies for self-harm and suicidal behavior among children and adolescents: A systematic review and network meta-analysis. *JAMA Network Open*, *4*(4), e216614–e216614. https://doi.org/10.1001/jamanetworkopen.2021.6614

Bailey, R. C., & Grenyer, B. F. S. (2015). The relationship between expressed emotion and wellbeing for families and carers of a relative with borderline personality disorder. *Personality and Mental Health*, *9*(1), 21–32. https://doi.org/10.1002/pmh.1273

Bateman, A., & Fonagy, P. (2019). A randomized controlled trial of a mentalization-based intervention (MBT-FACTS) for families of people with borderline personality disorder. *Personality Disorders*, *10*(1), 70–79. https://doi.org/10.1037/per0000298

Boritz, T. Z., Sheikhan, N. Y., Hawke, L. D., McMain, S. F., & Henderson, J. (2021). Evaluating the effectiveness of the family connections program for caregivers of youth with mental health challenges, part I: A quantitative analysis. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, *24*(2), 578–588. https://doi.org/10.1111/hex.13205

Boustani, M., Mazzone, E., Hodgins, J., & Rith-Najarian, L. (2024). Dialectical behavior therapy programming for adolescents: A systematic review and meta-analysis of clinical and implementation outcomes. *Journal of Clinical Child and Adolescent Psychology*, 1–16. https://doi.org/10.1080/15374416.2024.2426142

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research in Sport, Exercise & Health*, *13*(2), 201–216. https://doi.org/10.1080/2159676X.2019.1704846

Chanen, A. M. (2015). Borderline personality disorder in young people: Are we there yet? *The Journal of Clinical Psychology*, *71*(8), 778–791. https://doi.org/10.1002/jclp.22205

Cole, J. D., & Kazarian, S. S. (1988). The level of expressed emotion scale: A new measure of expressed emotion. *The Journal of Clinical Psychology*, *44*(3), 392–397. https://doi.org/10.1002/1097-4679(198805)44:3<392::AID-JCLP2270440313>3.0.CO;2-3

Fleischhaker, C., Böhme, R., Sixt, B., Brück, C., Schneider, C., & Schulz, E. (2011). Dialectical behavioral therapy for adolescents (DBT-A): A clinical trial for patients with suicidal and self-injurious behavior and borderline symptoms with a one-year follow-up. *Child and Adolescent Psychiatry and Mental Health*, *5*(1), 3–3. https://doi.org/10.1186/1753-2000-5-3

Flynn, D., Gillespie, C., Joyce, M., & Spillane, A. (2020). An evaluation of the skills group component of DBT-A for parent/guardians: A mixed methods study. *Irish Journal of Psychological Medicine*, *40*(2), 143–151. https://doi.org/10.1017/ipm.2019.62

Flynn, D., Kells, M., Joyce, M., Corcoran, P., Herley, S., Suarez, C., Cotter, P., Hurley, J., Weihrauch, M., & Groeger, J. (2017). Family connections versus optimised treatment-as-usual for family members of individuals with borderline personality disorder: Non-randomised controlled study. *Borderline Personality Disorder and Emotion*

Dysregulation, *4*(1), 18–18. https://doi.org/10.1186/s40479-017-0069-1

Gerlsma, C., van der Lubbe, P. M., & van Nieuwenhuizen, C. (1992). Factor analysis of the level of expressed emotion scale, a questionnaire intended to measure "perceived expressed emotion". *British Journal of Psychiatry*, *160*(3), 385–389. https://doi.org/10.1192/bjp.160.3.385

Gill, D., Warburton, W., Simes, D., & Sweller, N. (2018). Group therapy for emotional dysregulation: Treatment for adolescents and their parents. *Child & Adolescent Social Work Journal*, *35*(2), 169–180. https://doi.org/10.1007/s10560-017-0510-8

Gillespie, C., Joyce, M., Flynn, D., & Corcoran, P. (2019). Dialectical behaviour therapy for adolescents: A comparison of 16-week and 24-week programmes delivered in a public community setting. *Child and Adolescent Mental Health*, *24*(3), 266–273. https://doi.org/10.1111/camh.12325

Goldstein, H. (2011). *Multilevel statistical models* (4th ed.). Wiley.

Gonzalez-Blanks, A., Bridgewater, J. M., & Yates, T. M. (2020). Statistical approaches for highly skewed data: Evaluating relations between maltreatment and young adults' non-suicidal self-injury. *Journal of Clinical Child and Adolescent Psychology*, *49*(2), 147–161. https://doi.org/10.1080/15374416.2020.1724543

Grenyer, B. F. S., Bailey, R. C., Lewis, K. L., Matthias, M., Garretty, T., & Bickerton, A. (2018). A randomised controlled trial of group psychoeducation for carers of persons with borderline personality disorder. *Journal of Personality Disorders*, *32*, 1–15. https://doi.org/10.1521/pedi_2018_32_340

Guillén, V., Díaz-García, A., Mira, A., García-Palacios, A., Escrivá-Martínez, T., Baños, R., & Botella, C. (2021). Interventions for family members and carers of patients with borderline personality disorder: A systematic review. *Family Process*, *60*(1), 134–144. https://doi.org/10.1111/famp.12537

Hare, M., Conroy, K., Georgiadis, C., & Shaw, A. M. (2024). Abbreviated dialectical behavior therapy virtual skills group for caregivers of adolescents: An exploratory study of service user and clinical outcomes. *Child Psychiatry and Human Development*. https://doi.org/10.1007/s10578-024-01681-7

Hoffman, P. D., Fruzzetti, A. E., & Buteau, E. (2007). Understanding and engaging families: An education, skills and support program for relatives impacted by borderline personality disorder: Developing new treatments of personality disorder. *Journal of Mental Health (Abingdon, England)*, *16*(1), 69–82. https://doi.org/10.1080/09638230601182052

Hoffman, P. D., Fruzzetti, A. E., Buteau, E., Neiditch, E. R., Penney, D., Bruce, M. L., Hellman, F., & Struening, E. (2005). Family connections: A program for relatives of persons with borderline personality disorder. *Family Process*, *44*(2), 217–225. https://doi.org/10.1111/j.1545-5300.2005.00055.x

Ivarsson, A.-B., Sidenvall, B., & Carlsson, M. (2004). The factor structure of the burden assessment scale and the perceived burden of caregivers for individuals with severe mental disorders. *Scandinavian Journal of Caring Sciences*, *18*(4), 396–401. https://doi.org/10.1111/j.1471-6712.2004.00298.x

Jørgensen, M. S., Storebø, O. J., Poulsen, S., & Simonsen, E. (2021). Burden and treatment satisfaction among caregivers of adolescents with borderline personality disorder. *Family Process*, *60*(3), 772–787. https://doi.org/10.1111/famp.12593

Kaess, M., Brunner, R., & Chanen, A. (2014). Borderline personality disorder in adolescence. *Pediatrics (Evanston)*, *134*(4), 782–793. https://doi.org/10.1542/peds.2013-3677

Kothgassner, O. D., Goreis, A., Robinson, K., Huscsava, M. M., Schmahl, C., & Plener, P. L. (2021). Efficacy of dialectical behavior therapy for adolescent self-harm and suicidal ideation: A systematic review and meta-analysis. *Psychological Medicine*, *51*(7), 1057–1067. https://doi.org/10.1017/S0033291721001355

Kranzler, A., Fehling, K. B., Anestis, M. D., & Selby, E. A. (2016). Emotional dysregulation, internalizing symptoms, and self-injurious and suicidal behavior: Structural equation modeling analysis. *Death Studies*, *40*(6), 358–366. https://doi.org/10.1080/07481187.2016.1145156

Lawn, S., & McMahon, J. (2015). Experiences of family carers of people diagnosed with borderline personality disorder. *Journal of Psychiatric & Mental Health Nursing*, *22*(4), 234–243. https://doi.org/10.1111/jpm.12193

Linehan, M. (1993). *Cognitive-behavioral therapy for borderline personality disorder*. The Guilford Press.

Liu, Z., Heffernan, C., & Tan, J. (2020). Caregiver burden: A concept analysis. *International Journal of Nursing Sciences*, *7*(4), 438–445. https://doi.org/10.1016/j.ijnss.2020.07.012

Lovibond, P. F., & Lovibond, S. H. (1995). *Manual for the Depression Anxiety Stress Scales* (2nd ed.). Psychology Foundation. https://doi.org/10.1037/t01004-000

Miller, A. L. (2007). Including families in treatment. In A. L. Miller & J. H. & M. Linehan (Eds.), *Dialectical behaviour therapy with suicidal adolescents* (pp. 187–209). Guilford Publications.

Miller, M. L., & Skerven, K. (2017). Family skills: A naturalistic pilot study of a family-oriented dialectical behavior therapy program. *Couple & Family Psychology*, *6*(2), 79–93. https://doi.org/10.1037/cfp0000076

Num, S., & Woods, N. (2023). *Barriers for young people entering psychological group therapy in a community mental health setting - Quality improvement report*. Internal Report (SYMHS).

Osman, A., Wong, J. L., Bagge, C. L., Freedenthal, S., Gutierrez, P. M., & Lozano, G. (2012). The depression anxiety stress scales-21 (DASS-21): Further examination of dimensions, scale reliability, and correlates. *The Journal of Clinical Psychology*, *68*(12), 1322–1338. https://doi.org/10.1002/jclp.21908

Percy, W., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *The Qualitative Report*, *20*(2), 76–81. https://doi.org/10.46743/2160-3715/2015.2097

Rathus, J., Campbell, B., Miller, A., & Smith, H. (2015). Treatment acceptability study of walking the middle path, a new DBT skills module for adolescents and their families. *American Journal of Psychotherapy*, *69*(2), 163–178. https://doi.org/10.1176/appi.psychotherapy.2015.69.2.163

Rathus, J. H., Berk, M. S., Miller, A. L., & Halpert, R. (2020). Dialectical behavior therapy for adolescents: A review of the research. In *The Handbook of Dialectical Behavior Therapy* (pp. 175–208). https://doi.org/10.1016/B978-0-12-816384-9.00008-7

Rathus, J. H., & Miller, A. L. (2002). Dialectical behavior therapy adapted for suicidal adolescents. *Suicide and Life-Threatening Behavior*, *32*(2), 146–157. https://doi.org/10.1521/suli.32.2.146.24399

Rathus, J. H., & Miller, A. L. (2015). *DBT skills manual for adolescents*. The Guilford Press.

Ratnaweera, N., Hunt, K., & Camp, J. (2021). A qualitative evaluation of young people's, parents' and carers' experiences of a national and specialist CAMHS dialectical behaviour therapy outpatient service. *International Journal of Environmental Research and Public Health*, *18*(11), 5927–. https://doi.org/10.3390/ijerph18115927

Reinhard, S. C., Gubman, G. D., Horwitz, A. V., & Minsky, S. (1994). Burden assessment scale for families of the seriously mentally ill. *Evaluation and Program Planning*, *17*(3), 261–269. https://doi.org/10.1016/0149-7189(94)90004-3

RStudio Team. (2020). *RStudio: Integrated Development for R* (Version 2023.06) [Computer software]. RStudio

Seigerman, M. R., Betts, J. K., Hulbert, C., McKechnie, B., Rayner, V. K., Jovev, M., Cotton, S. M., McCutcheon, L., McNab, C., Burke, E., & Chanen, A. M. (2020). A study comparing the experiences of family and friends of young people with borderline personality disorder features with family and friends of young people with other serious illnesses and general population adults. *Borderline Personality Disorder and Emotion Dysregulation*, *7*(1), 17–17. https://doi.org/10.1186/s40479-020-00128-4

Sharp, C., & Fonagy, P. (2015). Practitioner review: Borderline personality disorder in adolescence - Recent conceptualization, intervention, and implications for clinical practice. *Journal of Child Psychology and Psychiatry*, *56*(12), 1266–1288. https://doi.org/10.1111/jcpp.12449

Smith, L., Hunt, K., Parker, S., Camp, J., Stewart, C., & Morris, A. (2023). Parent and carer skills groups in dialectical behaviour therapy for high-risk adolescents with severe emotion dysregulation: A mixed-methods evaluation of participants' outcomes and experiences. *International Journal of Environmental Research and Public Health*, *20* (14), 6334–. https://doi.org/10.3390/ijerph20146334

Sutherland, R., Baker, J., & Prince, S. (2020). Support, interventions, and outcomes for families/carers of people with borderline personality disorder: A systematic review. *Personality and Mental Health*, *14*(2), 199–214. https://doi.org/10.1002/pmh.1473

Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education (Australasian Science Education Research Association)*, *48*(6), 1273–1296. https://doi.org/10.1007/s11165-016-9602-2

Woodberry, K. A., & Popenoe, E. J. (2008). Implementing dialectical behavior therapy with adolescents and their families in a community outpatient clinic. *Cognitive and Behavioral Practice*, *15*(3), 277–286. https://doi.org/10.1016/j.cbpra.2007.08.004

Zanarini, M. C., Vujanovic, A. A., Parachini, E. A., Boulanger, J. L., Frankenburg, F. R., & Hennen, J. (2003). A screening measure for BPD: The McLean screening instrument for borderline personality disorder (MSI-BPD). *Journal of Personality Disorders*, *17*(6), 568–573. https://doi.org/10.1521/pedi.17.6.568.25355