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Brief group psychoeducation intervention for caregivers of individuals with bipolar disorder: a randomized controlled trial

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Abstract

Background: Bipolar disorder is associated with significant impairment in personal and social functioning for the individual and their caregivers. Psychoeducation for caregivers is beneficial, but interventions have typically required a significant time commitment and have not assessed changes in self-efficacy. This study evaluated the effectiveness of a brief, two-session psychoeducational intervention for caregivers. It was hypothesized that the intervention would reduce caregiver burden and distress, and increase bipolar disorder knowledge and bipolar disorder self-efficacy. **Methods:** Participants ($N = 32$) were randomized to immediate or waitlist control conditions. The intervention involved two, 150-minute group sessions spaced one-week apart. At pre-, post-, and one-month follow-up participants completed the Depression, Anxiety, Stress Scale (DASS-21), Burden Assessment Scale (BAS), Knowledge of Bipolar Disorder Scale, and a Bipolar Disorder Self-efficacy Scale. **Results:** Compared to the waitlist control group, the immediate treatment group demonstrated large and significant reductions in caregiver burden, and increases in bipolar disorder knowledge and bipolar disorder self-efficacy. These improvements maintained or increased to follow-up. No significant change was observed on the DASS-21. **Limitations:** Reliance on self-report and the sample comprised mostly of parents and partners, so it unclear if results generalize to other carer groups. **Conclusions:** Large and enduring improvements in carer burden, knowledge, and bipolar disorder self-efficacy can be achieved from a very brief, two-session intervention.

Key words: Bipolar disorder; psychoeducation; self-efficacy; caregivers; anxiety; depression; stress

Bipolar disorder is a chronic and recurrent illness characterized by extreme fluctuations in mood (Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, DSM-5, American Psychiatric Association, APA, 2013). The disorder is associated with significant impairment of personal and social functioning for the individual, as well as their family, friends and carers, referred to here as 'caregivers' (NICE, 2014). The caregiving role can be demanding and distressing, and can impact on the health and quality of life of the caregiver (Struening et al., 2001). Perlick, Hohenstein, Clarkin, Kaczynski, and Rosenheck (2005) examined the use of mental health and primary care services by caregivers of individuals with bipolar disorder and found that service utilization rates were considerably higher among caregivers than the general population. Given the significant cost associated with health service utilization there is a clear need for cost-effective and targeted interventions for caregivers.

Over the last 20 years the literature on the treatment of bipolar disorder has grown significantly and has repeatedly acknowledged the importance of involving caregivers. The NICE guidelines (2014) stipulate the importance of providing carer-focussed education and support programs as early as possible. Despite this recommendation, the opportunity to engage in such programs is limited and lacks thorough evaluation.

A randomized controlled trial (RCT) by Reinares et al. (2004) explored the efficacy of a psychoeducational family intervention on caregivers of individuals with bipolar disorder. Relatives of 45 medicated euthymic bipolar outpatients received either 12 psychoeducation sessions about bipolar disorder and coping skills or no treatment. The intervention was associated with a significant increase in participants' knowledge of bipolar disorder, as well as reductions in subjective burden and caregiver beliefs about the link between objective burden and the impact on the patient (Reinares et al., 2004). These preliminary results were promising in regards to the positive impact of caregiver psychoeducation.

A more recent study by Madigan et al. (2012) also found substantial benefits from a psychoeducational intervention targeted to caregivers of individuals with bipolar disorder. The authors conducted an RCT with 47 participants allocated to one of three groups; Multi Family Group Psychoeducation (MFGP), Solution Focused Group Psychotherapy (SFGP), or Treatment As Usual (TAU). Participants who attended the psychoeducational groups and solution focused groups reported significant improvement in knowledge of bipolar disorder and significant reductions in burden compared to those receiving TAU. One and two-year follow-ups revealed that gains were maintained for caregivers in the active conditions.

Previous research has not assessed the impact of psychoeducational interventions on caregiver self-efficacy. Bandura (1977) defined self-efficacy as one's perceived sense of mastery, competence and confidence to cope in a given situation. Higher self-efficacy beliefs are associated with increased effort and persistence in the face of obstacles and aversive conditions. Individuals with low self-efficacy believe they are unable to cope with difficult situations, become distressed and engage in avoidant behaviors (Bandura, 1977). Given the complex nature of bipolar disorder, as well as the burden and impairment associated with caring for someone with the disorder, improving carers' self-efficacy may be beneficial for coping with the carer role. To our knowledge, this is the first intervention study for caregivers of individuals with bipolar disorder that has assessed the impact on carer coping self-efficacy (henceforth referred to as 'bipolar disorder self-efficacy'). Additionally, previous research has applied interventions requiring a significant time commitment from caregivers and facilitators. Reinares et al.'s (2014) interventions involved twelve 90-minute sessions, while Madigan et al.'s (2012) comprised five 120-minute sessions. Brief and effective interventions are likely to facilitate dissemination by increasing the cost-effectiveness and flexibility with which they can be provided by health services with limited resources.

The aim of the current study was to conduct an RCT to evaluate the efficacy of a brief psychoeducational intervention delivered in the community to caregivers of individuals with

bipolar disorder. The first hypothesis was that participants would report significantly larger reductions in emotional symptoms (depression, anxiety, and stress) and caregiver burden compared to waitlist controls. The second hypothesis was that participants would report greater improvements in knowledge of bipolar disorder and bipolar disorder self-efficacy, compared to controls. The third hypothesis was that outcomes would maintain to one-month follow-up.

Method

Participants

Participants were recruited through advertisements on radio ($n = 5$), at local support and mental health services ($n = 11$), and in university broadcast emails ($n = 16$). Inclusion criteria were (a) age ≥ 18 years, (b) an ability to speak and read English fluently, and (c) being a caregiver of someone with a diagnosed bipolar disorder, defined as a friend, family member or partner. Exclusion criteria were (a) current engagement in therapy related to supporting the person with bipolar disorder and (b) a caregiver diagnosis of bipolar disorder.

Measures

Depression, anxiety, stress scale (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 is a 21-item measure that assesses depression, anxiety, and stress symptoms in adults (e.g., "*I felt down-hearted and blue,*" "*I felt close to panic,*" "*I found it hard to wind down*"). The DASS-21 is widely used and is regarded as having high clinical and research utility (Nezu, Ronan, Meadows, & McClure, 2000). Internal consistency in our sample was high ($\alpha = .95$). Individuals are asked to rate items on a scale from 0 (did not apply to me at all over the past week) to 3 (applied to me very much or most of the time over the past week).

Burden assessment scale (BAS; Reinhard, Gubman, Horwitz, & Minsky, 1994). The BAS is a 19-item measure that assesses the objective and subjective consequences of providing on-going care to the seriously mentally ill (e.g., "*Because of ___'s illness, to what extent have you had financial problems*"). Internal consistency for the current sample was

high (α = .92). Individuals are asked to rate to what extent they have experienced problems over the last month on a scale from 1 (not at all) to 4 (a lot).

   Knowledge of bipolar disorder scale. For the purpose of this study, an 8-item measure was developed to track changes in participant's knowledge of bipolar disorder. Items were developed based on topics related to the symptoms, management, and treatment of bipolar disorder (e.g., *"To what extent do you believe you have sufficient knowledge of the symptoms of mania; Symptoms of depression; Diagnostic criteria for bipolar 1; Medication treatments for bipolar disorder"*). Participants are asked to rate their knowledge on a Likert scale ranging from 1 (no knowledge) to 5 (very informed). Internal consistency for the current sample was high (α = .94).

   Bipolar disorder self-efficacy scale. An 11-item measure was developed for this study to track changes in participant's confidence in a range of activities related to their caregiving role (e.g., *"At present, how confident are you in performing each of the following activities; Identifying early warning signs of mania; Taking action in response to early warning signs of depression; Identifying the types of stressful events that might trigger a hypomanic or manic episode; Communicating with (___) about their illness"*). Items for the scale were adapted from the Centre for Clinical Interventions, Managing Bipolar Disorder Scale (Smith, L., Erceg-Hurn, D., & McEvoy, P. M. [in prep]). Participants were asked to rate their confidence on a Likert scale ranging from 0 (I can not do this activity at all) to 10 (I am certain I can do this activity). Internal consistency for the current sample was high (α = .94).

Procedure

   The study was approved by the Health Service's (#01_2015) and University's (HR43/2015) Human Research Ethics Committees, and it was preregistered on the Australian and New Zealand Clinical Trial Registry (www.anzctr.org.au, ACTRN12615000184572). Individuals who expressed an interest were screened for eligibility via telephone (see

Participants section). Demographic information was also collected at this point (name, date of birth, gender, and relationship to the individual with bipolar disorder) and individuals were asked to rate the current severity of their loved one's illness on a scale from 0 (no problems) to 5 (severe problems). Eligible participants were then randomized to immediate intervention or a waitlist by a researcher blind to participant identity using a computerized random-number generator (www.random.org). Assessments occurred at pre-treatment, post-treatment and one-month follow-up. Participants in the immediate treatment condition completed the outcome measures at three time points: Time 1 (one week before the first session), Time 2 (immediately after the second session) and Time 3 (one month after the second session). After Time 1 participants attended two 150-minute psychoeducation sessions one-week apart. Waitlist control participants completed the outcome measures at four time points: Time 1 (at allocation to waitlist), Time 2 (two weeks after Time 1), and Time 3 (one month after Time 2). After the control period participants attended the two 150-minute psychoeducation sessions and then completed the assessment measures again (Time 4).

Intervention

The two-session intervention was conducted by an experienced masters-level clinical psychologist and a registered psychologist. Each session was conducted in two parts with a 20 minute break in between. Content for the intervention was adapted from the health service's bipolar disorder program and *A Guide for Caregivers of People with Bipolar Disorder* (Berk, Jorm, Kelly, Berk, & Dodds, 2012). The topics covered in each session are outlined in Table 1. At the end of the first session participants were provided with an action plan template, which they were encouraged to complete collaboratively with the person with bipolar disorder. The action plan included the individual's most significant early warning signs for depression and mania, circumstances in which early warning signs are most likely to occur, as well as actions to be taken at a mild, moderate, and severe level of depression (e.g., scheduling pleasant activities, using a thought diary to challenge negative thoughts, asking

for support from family and friends, checking medication with the doctor) and mania (e.g., checking medication with the doctor, maintaining regular sleep patterns, limiting over stimulating activities). The task also included a maintenance plan, where activities needed to stay well were noted (e.g., mood monitoring, regular activities, blood tests, practice balanced thinking, maintain routines). Material adapted from Berk et al. (2012) was included in session two regarding natural reactions to caregiving, maintaining and rebuilding relationships, and recognizing the positives. At the end of the second session participants were directed to Berk et al. (2012) for further information. Group sessions for the immediate intervention groups were audiotaped and coded by two independent raters for therapist adherence to the protocol. Concordance between the raters was very high (93%) with only two items out of 30 rated differently. Therapist adherence to the protocol was rated at 100% for the first intervention group and at 97% for the second intervention group.

Analytic procedure.

Hypothesis testing. Intervention effects for each of the four outcomes were tested with a Generalized Linear Mixed Model (GLMM) as implemented through SPSS's (Version 22) GENLINMIXED procedure. The GLMMs included one nominal random effect (participant), one nominal fixed effect (group: intervention, control), one ordinal fixed effect (time: pre-test, post-test, follow-up), and the Group x Time interaction. All analyses were intention to treat. GLMM is less sensitive to participant attrition than ANOVA because it does not rely on participants providing data at every assessment point; the GLMM maximum likelihood procedure is a full information estimation procedure that uses all the data present at each assessment point. This reduces sampling bias and the need to replace missing data. GLMM is able to use the data present at each assessment point because time (pre-test, post-test, follow-up) is interpreted as a Level 1 variable that is nested within participant at Level 2. Significant Group x Time interactions were analyzed by conducting Least Significant Difference (LSD) contrasts across the simple main effects of time. Pre- to post-intervention

outcomes were also assessed using LSD contrasts for the waitlist group to determine if the outcomes were replicated. The GLMM 'robust statistics' option is robust to violations of normality and homogeneity of variance. Violations of sphericity were accommodated by changing the covariance matrix from the default of compound symmetry to autoregressive. Partial eta-square indexes effect sizes for main effects and interactions, with .01, .06, and .14 indicative of small, medium, and large effects, respectively (Miles & Shevlin, 2001). Cohen's *d* indexes effect sizes for LSD contrasts, with .20, .50, and .80 indicative of small, medium, and large effects, respectively (Cumming, 2012). An a priori power analysis using G*Power 3.1.8 (Faul, Erdfelder, Lang, & Buchner, 2007) with an alpha level of 0.05, an auto-correlation of 0.05, and three measurement occasions indicated that a total of 42 participants (21 per group) was required to ensure an 80% chance of detecting a low to moderate ($f = 0.25$) group by time interaction. If effect sizes were 'moderate' ($f = 0.25$), 28 participants (14 per group) were required.

Results

Participant flow

Participant flow is outlined in Figure 1. Of the 50 individuals screened, three did not meet eligibility criteria because they were under 18 years ($n = 1$) or had bipolar disorder themselves ($n = 2$). Additionally, seven reported the times were unsuitable due to work or family commitments, and eight reported they would be away during scheduled dates. A total of 32 participants were randomized to Condition 1 (Immediate Intervention, $n = 18$) or Condition 2 (Waitlist Condition, $n = 14$).

Sample description

Table 2 displays the demographic characteristics of each group and the whole sample. No significant differences were found between groups in age, $t(30) = 1.00$, $p = .324$, 95% CI = -5.63-16.49; gender, $t(30) = 0.22$, $p = .83$, 95% CI = -0.33-.41; or carer-rated problem severity, $t(90) = 0.14$, $p = .89$, 95% CI = -0.74-.64. Overall, 14 carers cohabited and 18 did

not cohabit with the individual with bipolar disorder, with the proportions significantly

differing between the groups, $\chi^2(1) = 5.04$, p = .025.

Intervention effects on DASS-21, burden, knowledge, and bipolar disorder self-efficacy scales

At pre-treatment, the two groups did not significantly differ on pre-treatment DASS-21, $t(90) = .65$, $p = .52$, 95% CI = -4.96-9.79, $d = 0.25$; BAS, $t(90) = .11$, $p = .91$, 95% CI = -7.83-8.77, $d = 0.04$; knowledge, $t(90) = .07$, $p = .95$, 95% CI = -4.84-5.19, $d = 0.03$; or bipolar disorder self-efficacy, $t(88) = .15$, $p = .88$, 95% CI = -15.77-13.53, $d = -0.05$.

Table 3 displays the mean (standard deviations) of outcome measures over time. Mean scores increased on three of the four outcome measures (BAS, knowledge, bipolar disorder self-efficacy) for the intervention group pre- to post-intervention and gains were maintained at follow-up. Mean scores on the DASS-21 remained stable in the intervention group across time. In the waitlist group, mean scores on the outcome measures remained stable (DASS-21, BAS, knowledge, bipolar disorder self-efficacy).

For the DASS-21 total score the main effects of Time, $F(2, 90) = 0.93$, $p = .65$, $\eta_p^2 = 0.02$, and Group, $F(1, 90) = 0.20$, $p = .47$, $\eta_p^2 < .01$, and the Group x Time interaction, $F(2, 90) = 1.19$, $p = .397$, $\eta_p^2 = 0.02$, were all not significant and the effect sizes were small. For the BAS the main effects of Time, $F(2, 90) = 7.36$, $p = .001$, $\eta_p^2 = 0.14$, and Group, $F(1, 90) = 6.55$, $p = .012$, $\eta_p^2 = 0.06$, and the Group x Time interaction, $F(2, 90) = 9.82$, $p < .001$, $\eta_p^2 = 0.18$, were all statistically significant and the effect sizes ranged from moderate to large. Follow-up LSD contrasts demonstrated that the intervention group's scores significantly reduced with large effect sizes from pre- to post-intervention, $t(90) = 4.02$, $p < .001$, 95% CI = 4.89-14.44, $d = 0.81$, and from pre-intervention to follow-up, $t(90) = 3.93$, $p < .001$, 95% CI = 5.57-16.99, $d = 1.04$, but scores did not significantly change from post-intervention to

follow-up and the effect size was small, $t(90) = 0.90$, $p = .37$, 95% CI = -1.93-5.15, $d = 0.20$. The control group's scores did not significantly change from pre- to post-intervention, $t(90) = -1.43$, $p = .16$, 95% CI = -1.71-0.28, $d = -0.08$, from pre-intervention to follow-up, $t(90) = -1.47$, $p = .15$, 95% CI = -1.85-0.28, $d = -0.01$, or from post-intervention to follow-up, $t(90) = -0.16$, $p = .88$, 95% CI = -0.89-0.84, $d < -0.01$. All effect sizes were small.

For bipolar disorder knowledge the main effects of Time, $F(2, 90) = 53.54$, $p < .001$, $\eta_p^2 = 0.54$, and Group, $F(1, 90) = 13.47$, $p < .001$, $\eta_p^2 = 0.13$, and the Group x Time interaction, $F(2, 90) = 55.19$, $p < .001$, $\eta_p^2 = 0.55$, were all significant and the effect sizes were large. Follow-up LSD contrasts demonstrated that the intervention group's scores significantly increased with large effect sizes from pre- to post-intervention, $t(90) = 9.80$, $p < .001$, 95% CI = 9.35-14.10, $d = 2.48$, and from pre-intervention to follow-up, $t(90) = 9.88$, $p < .001$, 95% CI = 10.61-15.95, $d = 3.21$, but scores did not significantly change and the effect size was medium from post-intervention to follow-up, $t(90) = 1.70$, $p = .09$, 95% CI = -0.26-3.37, $d = 0.47$. The control group's scores did not significantly change from pre- to post-intervention, $t(90) = -1.28$, $p = .20$, 95% CI = -0.91-0.20, $d = -0.05$, from pre-intervention to follow-up, $t(90) = 1.04$, $p = .30$, 95% CI = -0.13-0.42, $d = 0.02$, or from post-intervention to follow-up, $t(90) = 1.91$, $p = .06$, 95% CI = -0.02-1.02, $d = 0.06$. Effect sizes were small.

On the bipolar disorder self-efficacy scale the main effects of Time, $F(2, 90) = 13.77$, $p < .001$, $\eta_p^2 = 0.23$, and Group, $F(1, 90) = 5.09$, $p = .026$, $\eta_p^2 = 0.05$, and the Group x Time interaction, $F(2, 90) = 14.65$, $p < .001$, $\eta_p^2 = 0.25$, were all significant and effect sizes ranged from moderate to large. Follow-up LSD contrasts demonstrated that the intervention group's scores significantly increased with large effect sizes from pre- to post-intervention, $t(90) = 5.26$, $p < .001$, 95% CI = 13.03-28.86, $d = 1.57$, and from pre-intervention to follow-up, $t(90) = 5.16$, $p < .001$, 95% CI = 13.35-30.09, $d = 1.88$, but scores did not significantly change from post-intervention to follow-up and the effect size was small, $t(90) = 0.42$, $p = .68$, 95%

CI = -2.93-4.49, d = 0.09. The control group's scores did not significantly change from pre-to post-intervention, $t(90)$ = -1.00, p = .32, 95% CI = -1.07-0.36, d = -0.01, from pre-intervention to follow-up, $t(90)$ = -0.72, p = .47, 95% CI = -1.07-0.50, d = -0.01, or from post-intervention to follow-up, $t(90)$ = 0.26, p = .80, 95% CI = -0.48-0.62, d < 0.01. All effect sizes were small.

Outcomes for the waitlist group from pre- to post-intervention

To assess whether the pre- to post-intervention outcomes of the intervention group were replicated by the waitlist group a main effect of Time was investigated. The main effect of Time was significant and effect sizes ranged from moderate to large for all four of the outcome measures, DASS-21, $t(22)$ = -2.88, p = .009, d = -0.77; BAS, $t(22)$ = -7.91, p = .006, d = -2.11; Knowledge of bipolar disorder scale, $t(22)$ = 5.91, p < .001, d = 1.58; and bipolar disorder self-efficacy scale, $t(22)$ = 3.56, p = .002, d = 0.95. DASS-21 and BAS significantly reduced whereas knowledge and bipolar disorder self-efficacy significantly increased.

Discussion

To our knowledge, this is the first RCT evaluating a brief, two-session group psychoeducation intervention for caregivers of individuals with bipolar disorder. It is also the first RCT to include a measure of caregiver bipolar disorder self-efficacy, and the results were promising. As hypothesized, participants in the intervention condition reported significant reductions in burden, and significant improvements in bipolar disorder self-efficacy and knowledge of bipolar disorder from pre- to post-intervention, and the gains were maintained at one-month follow-up. These findings are consistent with previous research that has also found psychoeducation for caregivers to be beneficial, albeit with substantially longer interventions (Reinares et al., 2004; Madigan et al., 2012). In line with the current study, both studies found reductions in burden and improvements in knowledge of bipolar disorder, however, neither measured self-efficacy.

The results of this study suggest that at post-treatment caregivers were significantly more confident in their ability to cope with the difficulties they face being a caregiver of someone with bipolar disorder. Self-efficacy theory suggests that experiences based on performance accomplishments allow individuals to develop self-efficacy expectancies that are stronger and more generalized (Bandura, 1977). It is possible that the inclusion of an active homework task between sessions may have contributed to such a large change in participant bipolar disorder self-efficacy ratings. Anecdotally, participants reported finding the homework task difficult, particularly identifying the early warning signs and coming up with actions for mild and moderate levels of depression. However, they also reported finding the task extremely helpful, particularly the process of having the conversation with their loved one and the reassurance and confidence they felt having a written plan that was developed collaboratively that would help them manage future episodes. These gains and large effect sizes, which were maintained at one-month follow-up, were particularly impressive given the brevity of the intervention.

To determine whether the outcomes of the intervention group were replicated by the waitlist group, pre- to post-intervention outcomes on each of the four measures were assessed. The results of the BAS, Bipolar Disorder Self-efficacy Scale and Knowledge of Bipolar Disorder Scale replicate those from the intervention group, with significant improvements on all measures, which strengthens confidence in the findings from the immediate intervention group. In contrast to the immediate intervention group, the waitlist group also experienced a reduction in their own symptoms of anxiety, depression and stress after receiving the intervention (but not during the waitlist period). The finding that the immediate intervention group did not experience a reduction in their own emotional symptoms (depression, anxiety, and stress) may be explained by the fact that caregivers' symptoms of stress, depression and anxiety were not specifically targeted in the intervention. An alternative possibility is that factors in addition to their caregiver role contributed to

participants' emotional symptoms. Thus, whilst targeting factors associated with the caregiver role may be sufficient to increase bipolar disorder knowledge and bipolar disorder self-efficacy and reduce caregiver burden for bipolar disorder in particular, the findings suggest that carergivers may require adjunctive treatment focusing on their own symptoms of emotional disorder more generally. The finding that the waitlist group experienced a reduction in their own emotional symptoms suggests that the intervention may be associated with reductions in these symptoms, but this finding was confounded by time and may be a consequence of regression to the mean. It is important for future research to investigate strategies to ensure replicable improvements in carers' own symptoms of emotional disorder.

The results of the current study must be considered in light of some methodological limitations. Although well-established psychometrically sound measures were used for two of the dependent variables (psychopathology as measured with the DASS-21, and burden as measured with the BAS), changes on the other two dependent variables were evaluated using measures that have not been evaluated in regards to reliability and validity (Knowledge of Bipolar Disorder Scale and Bipolar Disorder Self-efficacy Scale). Although both measures were highly internally consistent and sensitive to change, it would be beneficial to further evaluate the reliability and validity of these measures. Additionally, all outcomes were based on self-report, which introduces the possibility of social desirability bias. However, the finding that immediate intervention participants did not report changes on the DASS-21, whilst they did report improvements on all other outcome measures, reduces this concern. Nonetheless, it is important that future studies assess outcomes more broadly, including duration of illness and relapse rates for the individuals with bipolar disorder. Our relatively small sample size and the question of whether our sample is representative of the target population also need to be considered. Fairly even numbers of males (n=13) and females (n=19) were included, however, the proportion of parents (n=11) and partners (n=18) far exceeded the proportion of siblings (n=1) and friends (n=2). Therefore, it is unclear how

helpful this particular intervention might be for people with different relationships to the individual with bipolar disorder. It may be that parents and partners are more interested in attending such sessions due to the close nature of their relationship to the bipolar patient and therefore they are more invested in the outcomes. The carer-rated severity of illness varied from mild ($n = 10$), moderate ($n = 7$) and high ($n = 14$). However, only one participant rated their loved one's illness as severe, and therefore the results may not generalize to this population. Further research with carers who rate symptoms in the severe range would be informative. Finally, this study was not designed to determine whether cohabiting with the person with bipolar disorder impacted on outcomes[1]. It is plausible that the intervention would be more beneficial for cohabiting than non-cohabiting carers due to greater contact and carer responsibility. This possibility is an important area for future research.

It has been suggested that the most useful model for managing caregiver burden and distress is a stepped care approach (Berk, 2015), where people are initially directed to readily available online resources (e.g. bipolarcaregivers.org) and then offered group-based structured psychoeducation if required. People who continue to experience high levels of distress can then be directed to individual or group-based therapy targeting their own psychological symptoms. This short term structured psychoeducation program evaluated in this study would fit readily into such a stepped care approach.

Time-efficient and cost-effective interventions are critical to reducing the financial, community and personal impact of this complex illness (Lopez & Murray, 1998). Brief programs such as the one reported here can have a large impact on caregivers. They are highly feasible and can be practically implemented in a variety of settings, such as hospitals, not for profit support groups, and therapeutic settings. The utility of disseminating psychoeducation in this brief format (2 x 150 minutes) may help to maximize access to support where resources are limited and may increase for the likelihood of help-seeking. Furthermore, a wide range of health professionals could potentially deliver the manualized

protocol that was developed during the project. The content of the program could also be adapted to suit specific client groups, such as caregivers of older adults, children and adolescents, the newly diagnosed, and individuals with a cognitive impairment.

Conclusion

This article reported on the development and evaluation of a brief (2 x 150 minutes) group psychoeducation intervention delivered to caregivers of individuals with bipolar disorder in a community setting. The results support previous research that group psychoeducational interventions can have a large impact on caregiver burden and knowledge of bipolar disorder. This study was the first to demonstrate that a brief intervention could have a large impact on caregiver bipolar disorder self-efficacy. These results are very promising for dissemination of this brief intervention with this specific population. This is in line with best practice guidelines for the treatment of bipolar disorder (NICE, 2014), which highlight the importance of providing cost-effective, readily available, and evidence-based interventions to this population who are often struggling to cope in their caregiving role.

Footnote

[1] Exploratory analyses investigating the impact of cohabiting on outcomes are available from the authors on request.

Acknowledgements

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