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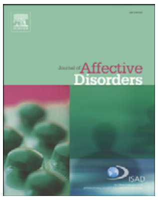

Research report

# What works for people with bipolar disorder? Tips from the experts

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ABSTRACT

*Objectives:* Little is known about how patients successfully manage their bipolar disorder (BD). This is a remarkable gap in the BD literature, given that current treatments are inadequate and information about beneficial self-management strategies could have clinical and theoretical implications. Here, we present results from a study of self-management strategies used by a sample of high-functioning individuals with BD.
*Methods:* The objectively rated Multidimensional Scale of Independent Functioning (MSIF) was used to confirm high functioning status (score <3) amongst a sample of individuals self-described as functioning well with BD type I or II ($N = 32$). Participants completed quantitative scales to assess psychiatric history, current symptoms, functioning and quality of life, and underwent either an individual interview or focus group to answer open questions about the self-management strategies they used to maintain or regain wellness.
*Results:* Wellness strategies fell into the following themes: 1) Sleep, rest, exercise and diet; 2) Ongoing monitoring; 3) Enacting a plan; 4) Reflective and meditative practices; 5) Understanding BD and educating others; 6) Connecting with others.
*Conclusions:* The wellness strategies described by the current sample have substantial overlap with those identified in the sole comparable qualitative study. They are also broadly consistent with, and serve to elaborate on proposed mechanisms of therapeutic action in adjunctive psychosocial interventions for BD. The findings constitute hopeful stories for people affected by the disorder and suggest further research to confirm and refine mechanisms of beneficial effect in BD.

## 1. Introduction

There is a dearth of knowledge about beneficial psychosocial mechanisms in bipolar disorder (BD) (Castle et al., 2009; Scott et al., 2007). Existing treatments and self-management strategies are only partially effective and further research is required to refine existing options and identify new mechanisms to improve outcomes in BD (Miklowitz, 2008). The present study sought to advance this issue by tapping an underutilized source of information. We conducted a qualitative investigation of wellness strategies employed by people who retain (or regain) good functioning despite a significant history of BD.

Only one previous qualitative study has examined self-management strategies used by people to stay well with BD (Russell and Browne, 2005). Common strategies amongst this Australian sample included: acceptance of diagnosis; mindfulness; education about the disorder; identification of triggers and recognition of warning signs; sleep and stress management; making lifestyle changes; treatment; accessing support; and developing stay well plans. Russell and Browne's design had significant limitations, including: i) an unsystematic approach to sampling (e.g., some participants were parents of people with BD), ii) neither psychiatric diagnosis nor level of functioning

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was assessed objectively, and, iii) data collection and interpretation was unsystematic (not all participants were directly interviewed and there is no evidence of an iterative process of theme extraction). Nonetheless, the data provide a seminal snapshot of beneficial self-management strategies.

It is informative to juxtapose the strategies identified by Russell and Browne with mechanisms potentially important in adjunctive psychosocial treatments for BD. A number of "branded" psychosocial treatments are broadly effective for BD (Alloy et al., 2005; Castle et al., 2009; Miklowitz, 2008; Scott et al., 2006, 2007), but their active ingredients are currently unknown. A recent review by Miklowitz et al., however, identified six candidate mechanisms of therapeutic action (Maina et al., 2007; Scott et al., 2006): adherence to medication, knowledge about the disorder, regular sleep/wake cycles, reduction in dysfunctional attitudes, family communication, and early recognition of prodromes. Superficially at least, there is substantial overlap between Miklowitz' provisional list of therapeutic mechanisms and the stay well strategies spontaneously described by participants in Russell and Browne's study, raising the possibility that some of these behaviours (e.g., regularizing sleep/wake cycles) deserve further attention and refinement as core beneficial mechanisms in BD.

### 1.1. The present study

The overarching aim of the present study was to synthesize and critically evaluate self-management strategies used by high functioning people with BD.[1] A clinical goal was to generate positive accounts of coping with BD that could serve as hopeful narratives for people impacted by the disorder. The design was expected to generate data counterpointing the biomedical focus on disturbance and disability in BD, and consistent with contemporary calls to broaden measurement of outcomes in BD (Michalak et al., 2007). The second, more theoretical, goal was to consider the derived strategies and themes as data concerning mechanisms of beneficial effect in BD. This goal was pursued by comparing the qualitative data collected here with Miklowitz' proposed mechanisms of therapeutic action in psychosocial interventions. We hypothesised that the naturalistic behaviors of individuals successfully managing their BD would converge with proposed active ingredients of adjunctive psychosocial interventions, providing triangulated evidence of the importance of these mechanisms.

The study was an advance on Russell and Browne's work in that an objective measure of psychosocial functioning was applied and validated measures were used to confirm psychiatric history and current symptoms. Rigorous qualitative data analytic techniques were also employed. An additional strength was our focus on a Canadian sample: Although Canada and Australia have historic and geographic similarities, they have significant differences in mental health approaches and outcomes (Tempier et al., 2009), permitting us to assess the transferability of Russell and Browne's findings.

## 2. Materials and methods

### 2.1. Participants

The study was completed by 32 participants with BD (63%, $n = 20$ female, Age mean $= 41.1$, SD $= 13.3$). The sample was drawn from residents of British Columbia, Canada.

### 2.2. Recruitment

Calls for participation were distributed via a number of channels, including: newsletters from the Mood Disorders Association of British Columbia, the Canadian Mental Health Association and other community mental health organizations, community newspapers, networking, public talks and education events and a range of websites. The advertisement invited people with a diagnosis of BD type I or II who felt that they were functioning well with their condition to contact the researchers. This purposeful recruitment strategy led to a preponderance of female participants and those with BD type I. Maximum variation sampling, a type of purposeful sampling, was therefore subsequently used to selectively recruit for male participants and individuals with BD type II, thus increasing the applicability of the findings (Teddlie and Yu, 2007). Ethical approval for the study was granted by the UBC Behavioral Research Ethics Board committee.

### 2.3. Screening

Potential participants were screened with the MINI International Neuropsychiatric Interview (Sheehan et al., 1998) to confirm diagnosis of BD and the Multidimensional Scale of Independent Functioning (MSIF) (Jaeger et al., 2003), which facilitates the assessment of functioning across work, residential and educational domains and has been validated for use in BD (Berns et al., 2007). Screening interviews were conducted by telephone.

### 2.4. Inclusion and exclusion criteria

Participants were required to have a diagnosis of BD type I or II, be 19 years or older, fluent in English, and have a global score of less than 3 on the MSIF. Exclusion criteria were kept to a minimum to maximize transferability. Participants were required to not be in an episode of illness that would render participation in a qualitative interview or focus group difficult (e.g., severe depression or florid mania, based on clinical judgment). Note, however, that individuals who were experiencing a mood episode *but were still functioning well* remained eligible for participation.

### 2.5. Quantitative methods

Hypo/manic symptoms were rated on the Young Mania Rating Scale (Young et al., 1978) and depression symptoms on the Hamilton Depression Rating Scale (HAM-D 29) (Williams, 1988). The Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) (Endicott et al., 1993) was used as a multi-domain self-report measure of quality of life. Social functioning was measured on the self-report Social Adjustment Scale (SAS) (Weissman and Bothwell, 1976).

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[1] Our research also samples from people who are not functioning well with their BD – a comparison of strategies amongst high versus low functioning individuals will be the focus of a future report.

### 2.6. Qualitative methods

Participants were offered a choice of individual or group formats for the qualitative interviews. Our rationale for this involved recruitment considerations and our approach to data analysis. We believed that some participants would be more comfortable in one type of interview setting over another. Both the focus groups and individual interviews used the same set of questions as our aim was to explore the topic in depth and encourage discussion of experiences that are unique. This contrasts with the aims of some focus group research wherein the intent is to reach consensus, to identify points of disagreement and to analyze the effects of group dynamics on the results obtained (Sim, 1998). In this study, the data from each type of interview were analyzed according to the individual's perspectives, a process facilitated by the small number of participants in each focus group (2, 3 and 4 participants). Interviews were conducted by one of the three primary investigators, all of whom had significant expertise in qualitative research methods. Interviews lasted between 60 and 90 min and took place in participants' homes, at the university, and/or over the telephone. A semi-structured interview guide was used to ensure that all participants were asked similar questions (e.g., What strategies have you found most helpful in managing bipolar disorder? How do friends, family and co-workers affect your ability to stay well?). All interviews were audio recorded and transcribed verbatim. As is common in qualitative traditions, data collection and data analysis occurred concurrently (Maxwell, 2005; Richards, 2005), and thematic analysis (Braun and Clark, 2005) was used to compare, contrast and categorize the data into themes (both within and across transcripts). The data were coded, organized and re-organized several times as categories were created, and an exploration of the relationships between and within sub-categories led to the development of an initial coding framework and preliminary themes. The research team met to evaluate the initial coding framework and to synthesize the categories and concepts into themes. Data were coded according to these themes, whereupon coded data segments were again reviewed to determine their fit with each theme. NVivo$^{QSR}$ (Bazeley, 2007), a qualitative software program, was used to manage the data and facilitate data analysis. Research team meetings were held to discuss and monitor coding consistency and to address the analytic validity of identified themes (Morse and Richards, 2002). In addition, the research team met to ensure that the findings were internally consistent and supported by the data from the participants' interviews (Sandelowski, 2000). Therefore, emergent themes are supported by direct quotes from the participants as to enable readers to evaluate the interpretations. Finally, as a form of member checking (Punch, 2005), 11 participants were sent a written description of the derived themes and asked to comment on the validity of the findings. The five individuals who responded with written feedback confirmed that the themes reflected their experiences and perspectives well.

## 3. Results

As shown in Table 1 below, the average participant had a significant clinical history of BD, in terms of episodes and hospital admissions. Current symptoms included moderate levels of depression symptoms and minimal hypo/manic symptomatology. In contrast, quality of life across all domains of the Q-LES-Q was comparable to normal range scores. For example, the mean for the Q-LES-Q general domain was 73.5, compared with 78.1 reported amongst a nonclinical community sample (Eisen et al., 2006). Preliminary subgroup analyses found no unambiguous evidence of BD type I versus II differences, so qualitative results are presented for the entire sample.

**Table 1**
Demographic and clinical characteristics ($N = 32$).

| Variable | Score |
|---|---|
| Sex | |
| Female | 20 (62.5%) |
| Male | 12 (37.5%) |
| Type | |
| Bipolar I | 25 (78.1%) |
| Bipolar II | 7 (21.9%) |
| Mean age (SD) | 41.1 (13.3) |
| Mean # depressive episodes (SD) | 14.79 (15.94) |
| Mean # manic episodes (SD) | 8.3 (18.40) |
| Mean # hospitalizations (SD) | 3 (4.64) |
| Mean HAM-D score (SD) | 8.03 (9.20) |
| Mean YMRS score (SD) | 2.45 (3.00) |
| Mean Q-LES-Q % max score (SD) | |
| Physical Health domain | 68.69 (19.88) |
| General Feeling domain | 70.96 (15.43) |
| Work domain | 82.73 (13.76) |
| Household Duties domain | 72.00 (23.04) |
| School/Course domain | 74.44 (25.18) |
| Leisure Time Activities domain | 77.77(16.46) |
| Mean Social domain | 78.96 (16.44) |
| Overall – General domain | 73.54 (20.20) |
| Satisfaction with Medication (median (range)) | 3 (3) |
| Overall Life Satisfaction (median (range)) | 4 (4) |
| Have a job | 16 (51.6%) |
| Work for self | 14 (45.2%) |
| Volunteer work | 13 (41.9%) |
| Mean SAS score (SD) | 1.76 (0.44) |
| Mean SAS T-score (SD) | 55.31 (13.46) |

Six major content themes were drawn from participants' discussion of their wellness strategies: (1) Sleep, rest, exercise and diet; (2) Ongoing monitoring; (3) Enacting a plan; (4) Reflective and meditative practices; (5) Understanding BD and educating others; (6) Connecting with others.

### 3.1. Sleep, rest, exercise and diet

Participants identified getting sufficient and regular sleep as one of the most important strategies for maintaining or regaining wellness. Sleep was characterized as a lynchpin to health, with eight to nine hours often cited as an optimal amount. Some participants emphasized the benefits of sleep and naps on a routine basis whereas others described the association between sleep and rest to symptoms of mania and depression. Olivia[2] explains.

> Getting enough sleep is absolutely essential, which is something that I only realized – I only was diagnosed two years ago … I'm very conscientious. I record the amount of sleep I get every night, so that I know exactly where I stand

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[2] Pseudonyms are used throughout this paper.

> with it. I rarely get too much but I think in the days when I used to push myself I was not getting enough sleep. So now I find if I get enough sleep, I don't get depressed.

Waking rest was also useful to many participants and usually involved lying down or watching TV. This strategy re-energized people so they could meet social and work responsibilities.

Exercise was a popular wellness strategy, with a particular theme being the importance of finding the right type of exercise. Participants described a wide variety of activities including: Tai Chi, dance, yoga, exercise routines, walking, snowboarding, and swimming. Two participants indicated that exercise happens as part of the work they do; one person taught dance classes five days a week and the other referred to her "nicely spread out yoga classes." The opportunity to exercise also occurred for Jeannie who works in a white-collar downtown business.

> The company itself does [affect my health] because they do have a fitness allowance and I'm encouraged to take classes. Usually I wouldn't bother going to yoga because I'd be like, 'you know it's too expensive' or 'I'd have to buy a mat' or you know, 'they don't reimburse you for the other stuff but the classes itself or there's a gym there' so they're very proactive with all-around wellness.

Exercise often involved activities outdoors and the location itself had a salutary health effect. One of the older participants described the how regular mild exercise affects her wellness.

> For me walking by the sea is the best therapy of everything I do. Walking by the sea is something that I try and do a few times a week. … I consider that a very important part of my overall balance, the walking.

One of the younger participants recounted numerous outdoor activities she enjoyed, and again, regularity and setting played a big role.

> I also do a lot of outdoor activities…I mountain bike, I hike, I run. I do at least 2 hours of exercise 5 days a week, preferably outside. The outdoors has really helped me.

Attention to diet and nutrition as a self-management strategy involved choosing healthy foods, eating regularly scheduled meals, and taking vitamin supplements. These actions were part of routines that gave structure to participants' lives, and thus helped many of them feel balanced and in control. The ability to eat well and regularly was associated with stability whereas more erratic patterns or excesses reflected shifts in mood, as Robyn explains.

> When you're not feeling well, that's one of the things that kind of gets blown out of proportion. Either you're eating too much or you are not eating enough….If you're depressed you just seem to eat all the time. You are stuffing and it's usually high carb, and other times I've been really depressed and it's just like, you don't wanna touch food. So you kind of have to keep an eye on both sides of it.

Most participants identified adhering to a self-defined good diet and proper nutrition as part of functioning well. They monitored the overuse of substances that are potentially mood-altering such as caffeine and sugar. Several participants described either avoiding alcohol or decreasing the amount they drank, and eliminating the use of recreational drugs such as marijuana. Overall, participants were acutely aware of the impact that the right sleep, rest, diet and exercise choices had on their lives. These strategies are inexpensive, within one's control and reflect common sense, as one participant concludes.

> The things that I need to do to stay in balance, and I realize when I tell other people they sound so silly, so trite, and you read them in every ladies' magazine you'll ever see: exercise regularly, get enough sleep, and eat a healthy balanced diet.

### *3.2. Ongoing monitoring*

This set of self-management strategies reflected participants' strong motivation to stay well and the responsibility that they assumed for their wellness. Participants described the importance of learning to pay close attention to their moods and activities, in order to judge when to make changes. Understanding their unique behavioral patterns and warning signs required self-awareness and was more common among individuals who had lived with BD longer than those more recently diagnosed. This monitoring is reflected in the words of two participants: "For me it's a certain vigilance that is always happening" and "I'm more mindful. I keep a running commentary." Being vigilant prompted participants to adjust their activities to avoid getting overwhelmed. For example, individuals would spread tasks out over the week, cancel social engagements if necessary and maintain some unscheduled time. Several participants spoke of being less critical of themselves for past actions and recognizing the importance of self-monitoring. Max describes this process.

> But what really allowed me to move and carry on from my episode was doing a lot of reflection and insight into myself… Insight and reflection I think were huge. And in maintaining, because that's the way that, you know if you are feeling high or something like that, you can say 'OK maybe I should hold back on talking for a bit.' Often times I've said things that I wish I didn't say. That was the thing – forgiving myself for things that I did during my episode and coming to terms with that. So if I feel that way again, practicing that restraint and that, you know, I think you can monitor yourself a bit better.

The description of symptoms or the recognition that something was wrong varied across the participant group. Some individuals sensed physical changes ("It's like a motor slowly turning off in my body") whereas others observed their activity level ("If there are over 9 things on my 'to-do' list, that's a danger sign...if there is no 'to-do' list that means I'm heading for depression").

The use of prescription medications and the ability to monitor the dose or initiate as-needed medications (e.g., sleep aids) played a key role in maintaining wellness for the majority of participants. A few individuals remained well without taking medications, however, many more described making small changes subsequent to recognizing an increase in their symptoms. This is reflected in one participant's comment, "I've learned my early warning signs [and] I make minor adjustments." Some participants consulted with their psychiatrist, either in person or on the telephone, before making any medication changes. Regular self-monitoring and adjustment required considerable effort and diligence, as reflected in Robyn's comment: "It's a lot of maintaining and you're constantly working on it." This process added to the knowledge that was obtained about the disorder through other means such as psychoeducation.

Spouses/partners were often mentioned as people who had learned the warning signs of mania and depression and encouraged their loved one to initiate wellness strategies. Spouses/partners helped the person with BD to identify activity pattern changes or alterations from their usual habits that could signal mood changes.

### 3.3. Enacting a plan

Enacting a plan occurred when participants recognized an impending manic or depressive episode and usually involved others to assist them. The plan could be an informal understanding between family members or friends about how to support the person with BD when wellness was compromised. Or the plan could be a more detailed document that was developed over time and used to guide decisions. One example of the latter is the Wellness Recovery Action Plan (WRAP), popularized by Copeland (Copeland, 2000) as a self-management tool for recovery. This plan involves identifying triggers and stressors that threaten wellness, making a list of trusted individuals to call on for support, describing activities and strategies to maintain wellness, and detailing the kinds of circumstances that prompt initiating a crisis plan. Robyn describes using the WRAP to judge the seriousness of an impending depressive episode.

> If I have three days in a row where I've just kind of felt down and blue, then I pull out my wellness plan and I look and it usually will kind of help me out in that time. If that's not working and I actually end up into 'signs and symptoms,' and those are listed, the little red flags like, 'I don't care.' That's a huge one with me. If I've gotten to the point where I am saying 'I don't care,' then I've kind of lost that hope. And that's getting into the signs and symptoms; still able to manage it at home but into signs and symptoms. When I am talking about death and dying, those are the kind of symptoms that we're looking at getting into a hospital then.

While this excerpt describes the exacerbation of illness, Robyn stated "I have never had to use my actual crisis plan because I do my maintenance and it seems like the more well I am, the easier it is to be well."

### 3.4. Reflective and meditative practices

Participants reported using a variety of reflective and meditative practices to help maintain wellness. These ranged from practices such as Tai Chi, yoga, and meditation to activities like regular journaling, inspirational reading, and praying. Rather than relying on any one practice, participants typically drew from several actions that were successful before. For example, one participant stated that her main strategies were to: keep a journal, meditate and listen to calming music. Journaling was a popular strategy with many participants and one individual described its benefits this way.

> When I'm depressed, I often turn to journaling and I can get all the things that I'm thinking about out. Its gets your thoughts down on paper and then you can look at them and think, 'well, is this really the way things are happening or am I perceiving something that isn't happening anymore?' If you've got a problem, by the time you finish writing it all out, you can usually come up with a solution.

Participants who engaged in Tai Chi and yoga cited the benefits of regular practice, which in some instances included their roles as teachers. For Zoe, the commitment to Tai Chi practice along with self-monitoring strategies led to a "zone of stability" that allowed her to manage BD well despite experiencing symptoms. Another eastern-based practice involved Buddhist-inspired watchfulness.

> It's really just witnessing my thoughts and going 'oh look, self-hatred's coming up again. Jealousy's up, oh great.' And that's when I really practice watchfulness. An American Buddhist named Pema Chodron has written a number of books for lay people who, even if you're not Buddhist you can relate to…and so it really talks about kindness and unconditional friendliness towards oneself and that's a precept that I probably embrace even more, and I don't necessarily feel it, but I read her words and I go 'OK'.

Other participants found that creative activities such as painting encouraged them to focus, stay well and gain insight into their actions.

### 3.5. Understanding BD and educating others

Participants learned about BD through a variety of channels including books and newsletters, the internet, attending groups, charting their unique cycles and stressors, and talking to health care practitioners. Participants read books that both described the disorder and also those that combined factual information with narratives such as *An Unquiet Mind* by Kay Redfield Jamieson (Jamison, 1995) and *A Brilliant Madness* by Patty Duke (Duke and Hochman, 1992). One participant described how she learned about BD, and the benefits of doing so, in this way.

> Well, some of the books were kind of self-help, kind of informational strategy books and those were helpful to learn about medication, to learn about different coping strategies, to actually learn about the illness and different biochemistry. So it gave me more knowledge and helped me make choices and ask questions of my doctor and understand those things that happened to me in a new way. Some of the books I read were memoirs and personal narratives and then that was helpful to have people to relate to, either who had shared a common experience, so I could understand mine better, or people who were role models and how they had dealt with it.

Most individuals described a process of obtaining information that required considerable self-initiative. Some participants attended psychoeducation groups organized by the Mood Disorders Association of British Columbia or through local hospitals to obtain initial information or keep current with new developments. There were strong opinions about the benefits and drawbacks of groups as a means to learn more about BD; some people found that the groups became less structured over time and actually somewhat depressing. The advantages of group formats to find out more about BD included meeting others who shared similar experiences and also sought information. Some participants preferred one-to-one settings to learn about BD and recounted having supportive doctors and other health care practitioners who provided information.

Many participants found that different forms of therapy, whether it was skills-based cognitive-behavioural therapy (CBT) or insight-oriented psychotherapy, helped them understand how to reduce stress, monitor mood changes, and generally gain knowledge to live well with BD. Zoe identified a pivotal therapy experience in this way.

> I think talk therapy has probably been the best tool for me. You encounter different styles of counseling over the years and I think really getting at grief, is really helpful for me. In terms of crying, that's probably one of the most powerful things, is to really get into that.

Participants shared what they learned about BD with family members and friends who were supportive. Thus, a spouse/partner of a person with BD learned the warning signs of mania and depression and encouraged their loved one to use strategies that helped her or him stay well. Spouses/partners helped the person with BD to identify activity pattern changes or alterations from their usual habits that could signal mood changes. Robyn explains: “So my support network, the people that are closest to me let me know that, ‘OK, you haven't showered for three days’ and three is my number. If I haven't showered for three days or I haven't slept for three nights, then what's going on?” It is not surprising that family and friends who were knowledgeable about BD were people that participants chose to connect with and seek out for support.

### *3.6. Connecting with others*

This self-management strategy involved maintaining social connections with family and friends, seeking out professional support, and for some people, doing volunteer work. Participants who had developed non-judgmental friends described the importance of socializing and having fun, of finding a balance between solitary and social time. One person described how he would meet with a core group of friends for coffee, a routine that provided considerable support and stability as he recovered from a manic episode. Lydia explains the benefits of connecting with friends.

> Meeting with friends, talking about how I'm doing, that's important – but not focusing on it either, so being real about where I'm at. So not having to put on the fake smile and pretend everything's fine when it's not but being able to just be, and get out, go for hikes and stuff.

Psychiatrists, nurses and general practitioners were among the health care professionals whose services participants sought out as a means of staying well. This connection occurred through mood disorders support groups and one-to-one sessions. The value of a quality relationship, built on respect and collaboration, was emphasized by most participants who possessed one, and was desired by those who had not yet experienced this type of support. One participant who lives outside of metropolitan Vancouver illustrated the role her doctor plays in her life.

> I see my psychiatrist one or two times a year. And he's available by email or phone anytime I feel that it's needed. So I have that as a resource…. He also treats me with more respect, for my level of intellect and level of understanding and my decision about my health care, than probably any other psychiatrist I've had. So that means more to me than having someone local.

Volunteering was another means of connecting with others that many participants found useful. They described getting involved in charity work as a way to put their own issues into perspective. Some participants spoke about volunteering with organizations that provided services for people with mental health problems and how they could use their own experiences to help others in an earlier phase of recovery. Alternatively, participants volunteered in a variety of capacities with community groups that were unrelated to mental health. Lydia sums up the benefits of volunteer work.

> Well I had periods where I was really depressed and very dark, and not involved in community, not involved with others. I was really kind of, you know, just in my own space in my own world feeling very isolated, and very self-analyzing. So what I've noticed is that when I have a bit more outward kind of motivation and movement and being involved in the world, in helping other people or even just giving things away or giving of my time and energy, that's really helpful in terms of keeping balanced in my own life.

## 4. Discussion

A novel investigation of wellness strategies amongst a confirmed sample of high functioning people with BD type I and II generated a rich set of qualitative themes. Quantitative analyses confirmed the credentials of the sample for the present purposes — the average participant had experienced a significant clinical history with BD, but reported effectively nonclinical levels of quality of life. The relationship with previous findings will be considered first, followed by a comparison between the present findings about beneficial strategies and existing data on potential psychosocial therapeutic mechanisms.

Given the divergence in sampling strategy, data collection and analysis, the correspondence between the present results and those of Russell and Browne (Russell and Browne, 2005) is remarkable. In both samples, accessing good quality knowledge about the disorder (particularly individualized knowledge about the appropriateness of their diagnosis) was identified as a foundation strategy. Likewise, monitoring the dynamics of their disorder (especially personal warning signs) in the context of life stressors and triggers was significant for participants in the Canadian and Australian studies. Both groups underlined the importance of having an early intervention plan to enact when symptoms appeared. This plan included in many cases titrating medication. In both groups too, sleep was seen as a key barometer and mechanism of health, and strategies for regularizing sleep were highly valued. Perhaps reflecting locale-specific factors, the Canadian sample highlighted diet and exercise as critical strategies alongside sleep management, while the Australian sample highlighted the need to manage stressors (e.g., work-related stress). Both samples spoke about the importance of medication and in some cases titration of medication as required. The Australian sample's strategy of "mindfulness" may correspond to the description here of meditative and reflective practices. A good relationship with the primary treating practitioner was deemed very important, and a range of complementary treatments were also found effective. Finally, the importance of connecting with family, friends and others for support, pleasure and meaning in life was a major theme in both samples.

The findings presented here contribute to a body of knowledge arising from qualitative research approaches to studying the psychosocial issues of living with BD (Clatworthy et al., 2007; Pollack and Aponte, 2001; Proudfoot et al., 2009). For example, Clatworthy et al. (2007) created a 'perceptions-practicalities' framework that was used to uncover clients' beliefs and concerns about BD, in relation to medication adherence. Consistent with the wellness study results offered here, Proudfoot et al. (2009) found that recognizing triggers and early warning signs was key to managing BD for newly-diagnosed individuals. Gaining an understanding of how clients think about BD can facilitate clinician–client dialogues about self-management strategies, including the use of medications, that can help clients maintain or regain wellness.

As planned, a major outcome of the study was a set of hopeful narratives: we present evidence that individuals with objectively severe BD histories can experience a strong sense of agency around their well-being. Clinicians can use these qualitative data to underscore the power of proactive well-being strategies and inspire positive therapeutic engagement. A second clinical implication is the importance of individual differences in the strategies and their application. Continual encouragement of the individual's efforts to develop wellness expertise is therefore part of the clinician's job. Likewise, clinicians need to be sensitive not just to the strategies being pursued but to the meaning attributed to them. In our data, for example, participation in psychoeducation groups was at times empowering and educational and at other times demoralizing. In fact, a meta-theme here was the importance of people *discovering for themselves* what works: the notion of an idiosyncratic narrative is not surprising given the complex pattern of interactions that are likely to moderate well-being in BD.

As hypothesised, the well-being strategies used by the present high functioning sample with BD overlap substantially with mechanisms provisionally proposed as important in adjunctive psychotherapies (see Table 2).

The contents of Table 2 can be interpreted as independent corroborating support for the six candidate strategies identified by Miklowitz et al. (Leidy et al., 1998) Future research into what works in BD should consider these strategies as firm candidate mechanisms, within and outside of treatment. Across strategies, the contents of Table 2 also highlight the utility of a qualitative approach — the present data present a more contextualized and personalized account of these strategies.

**Table 2**
Relationship between present findings and six putative mechanisms of action in psychosocial treatments for BD.

| Candidate mechanisms of action in psychosocial treatments for BD | Corresponding qualitative data in wellness strategies employed by high functioning people with BD | Additional elaboration arising from qualitative data |
|---|---|---|
| Adherence to medication | Use of medication | Titration of medication in response to monitoring, "adherence" does not capture the active collaborative approach to medication.<br>Particular impact of a collaboration with a central clinician. |
| Knowledge about the disorder | Educating self and others | Participants mentioned both the content of the information they gained about the disorder, and also the process.<br>Groups can deteriorate into unproductive complaints. Web has a wide range of quality. |
| Regular sleep/wake cycles | Sleep | Participants saw sleep management as part of a holistic strategy of exercise, rest, diet and sleep. Also noted that these things might be erroneously minimized because of their generic nature ("so trite").<br>The importance of "waking rest" (e.g. watching TV).<br>Hunting for exercise strategies that fit the individual in their lifestyle. |
| Reduction in dysfunctional attitudes | Some mention of CBT | This was not a prominent theme in our sample.<br>A couple of participants described compassion as more useful at times than CBT and stated "I was doing sort of the typical kind of cognitive-behavioural reframing sheets, and they would say how do you feel after you've changed this or whatever, and I guess also it was, it was, in some ways the facilitators oversight that when, I don't know if it's when other people clinically depressed, but when I'm clinically depressed, reframing doesn't do a lot of good in terms of changing how I feel." Another person stated: "I've prided myself on teaching myself positive self-talk like just imagining good things about what other people are thinking about me, or projecting onto myself positive things as I'm walking down the hall." |
| Family communication | Connecting with others | Family as one domain of social interaction. Particular role of family in monitoring. Importance of relationships for fun and meaning, rather than absence of negative communication. |
| Early recognition of prodromes | Monitoring, plan | Participants described strategies to address mania such as putting a schedule in place, limiting activities and contact with others, and doing relaxing activities.<br>Substantial effort required, and this strategy was more pronounced in people who had managed BD for longer.<br>Importance of a proactive response prevention plan of some type. |
| - | Reflective and meditative practices | Perhaps relates to "mindfulness" strategy in the Russell and Browne sample. |

The provisional conclusion that the strategies listed in Table 2 are important beneficial mechanisms in BD raises many questions for future research — is there a hierarchy of importance, what are the patterns of moderation and mediation between mechanisms? Large-N quantitative research modeling the predictors of quality of life in BD would be an efficient step towards answering these questions. In a starting model, endogenous variables would be individual difference moderators (including age, gender, personality, illness history and phase), mediating variables would be the mechanism variables of Table 2, and outcome variables would be quality of life,[3] alongside manic and depressive symptomatology.[4]

By investigating strategies that are used spontaneously in naturalistic settings, the study also identified issues that have received inadequate attention in the psychosocial treatment literature. First, reflective and meditative practices were an important wellness strategy in our sample, apparently echoing the importance of "mindfulness" in the Russell and Browne data. Future research should consider the inclusion of such strategies in broad-based adjunctive psychosocial treatments. Second, a meta-theme in the present qualitative data was the lifelong dynamic management of BD: no participant said their BD was managed by "getting it treated." Rather, our findings support the hypothesis that "a chronic care model" rather than a treatment model may be optimal for this waxing and waning disorder that interacts with both developmental trajectory and life events (Miklowitz, 2008; Newman et al., 2002). Growing evidence for the importance of booster or follow-up sessions for psychosocial interventions may in fact reflect this underlying reality. Finally, the findings also raise questions about the interaction between medication and non-pharmacological management strategies. For those who choose to manage prodromes by adjusting medication, what is the optimal regimen? What are the circumstances in which well-being strategies might be recommended over medication (e.g., type II), and how do clinicians best open this complex dialogue with clients?

The study had a number of limitations. First, it would be useful to compare the reports of the present sample with reports from individuals who have more difficulty managing their BD. We are currently collecting these data, and believe this comparison will support firmer statements about transferability of the present findings and mechanisms (personal, situational) that differentiate outcomes. Until this comparison is made, we must remain skeptical of the causal status of strategies believed effective in the present sample. Second, we have made much of the apparent congruence between well-being strategies in our sample and the strategies contained in existing adjunctive psychosocial interventions for BD. This conclusion could be confounded by participants' experiences with such interventions or indeed the researchers' conceptual maps as we explored themes. Finally, we did not probe for the developmental history of expert self-management. We envisage that information about the steps (including false starts) towards expert status would be useful, particularly for individuals who are newly-diagnosed.

## 5. Conclusions

People who are high functioning despite a significant clinical history of BD describe a set of wellness self-management strategies that they believe play a significant role in their well-being outcomes. The described strategies are consistent with proposed therapeutic mechanisms in current psychosocial interventions for BD, but the research also highlights important individual differences in strategies, the importance of idiosyncratic expertise and the potential utility of a chronic care (as opposed to treatment) paradigm. Further research should be conducted to clarify the causal status of these strategies and test the limits of their generalisability. Typical outcomes for people with BD remain unacceptably poor, and potential points of leverage must be energetically pursued.

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**Conflict of interest**

The authors have no commercial associations that might pose a conflict of interest in connection with this manuscript.

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