FAMILY-FOCUSED APPROACHES SUPPORT OUTCOMES OF THE PATIENT WITH BIPOLAR DISORDER: A FAMILY PRACTICE LENS

by

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Abstract

Bipolar disorder (BD) has significant individual and family consequences and is consistently managed in the family practice setting when there is a lack of specialty services. Family appears to be an underutilized resource and yet is consistently mentioned in current guidelines. This literature review was conducted to determine how family can be incorporated into the family practice setting to improve patient outcomes. A list of recommendations was developed to provide evidence-based rationale to primary care providers to integrate family into the psychosocial management. In doing so, this provides additional resources that are consistent with current recommendations and can support patients with BD.

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CHAPTER 1

Introduction

Bipolar disorder (BD) is a mental health condition with many significant negative psychosocial consequences. BD is group of chronic mental health disorders that is categorized into two types: bipolar I disorder and bipolar II disorder. Bipolar I disorder is diagnosed when there is one clear manic episode with or without episodes of hypomania or depression (Parikh, 2018). Bipolar II disorder is diagnosed when there is history of a hypomanic episode and major depressive episodes, and there is no evidence of a full manic episode (Parikh, 2018). The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), provides clear features and criteria required for diagnosis for each type as well as for episodes of mania, hypomania, and depression (Parikh, 2018). BD demonstrates a strong genetic component and has approximately a 70% chance of inheritability (McIntyre et al., 2020). Childhood maltreatment is associated with the severity of the illness which suggests that environmental exposures play a significant role in the presentation of the disorder (McIntyre et al., 2020). More complex presentations include those with suicidality or greater risk-taking behaviors. (McIntyre et al., 2020).

BD significantly impacts psychosocial functioning and equates to approximately loss of 10-20 potential life years (McIntyre et al., 2020). BD can cause significant functional impairment and “represents a substantial public health problem in primary care settings” (Kilbourne et al., 2021, p.1). This poses as a public health problem due to high rates of morbidity, mortality and substantial health care costs associated with the disorder that make management of this disorder critically important (Kilbourne et al., 2021). There is an increasing awareness that those with BD may be seen exclusively in the family practice setting when there is a lack of specialty mental health services or because of a perceived stigma associated with those who use utilize such specialized services (Kilbourne et al., 2021). In British Columbia, this inherently appears to be an issue with the availability of such services in rural and northern regions.

The importance of the family in BD appears to be an overlooked facet in the management of the disorder, in developing a therapeutic alliance with the patient, and in the psychosocial impacts on the entire family unit (Kilbourne et al., 2013). Although the current guidelines recommend routine involvement of family in psychoeducation, which helps to detect early warning signs or underreported sub-syndromal symptoms by the patient (American Psychiatric Association, 2010), this does not appear to be consistently offered in family practice settings (Kilbourne et al., 2013). Family involvement also offers an important protective factor for patients who have family members that are wanting to support the patient's well-being and illness management, which appear to be an underutilized but important resource (Kilbourne et al., 2013).

By using the population/person/problem, intervention, and outcome (PIO) framework (University of Northern British Columbia, 2018) for the development of a research question alongside my personal and professional knowledge of BD, a search was conducted to examine family-focused approaches that could potentially improve outcomes of the patient with BD. The goal of this paper is to determine if family-focused approaches can improve outcomes of patients with BD in the family practice setting. This paper will provide direction to primary care providers (PCPs) on how to best incorporate family members into day-to-day assessments and their practice with patients who are diagnosed with BD, or for PCPs to consider family members as part of the resources for patients to support adjunctive psychosocial treatment. When PCPs consider the impacts that BD may have on the health care system and on the family, this gives incentive to find additional interventions that may significantly improve the psychosocial functioning of those with the disorder (Chiu & Chokka, 2011).

A review of the current practices on the management, the role of the family, guidelines, and geographical considerations in the utilization of primary care services is undertaken as part of this project. Following this, the methods chapter to systematically search and present current research in family-focused approaches that improved patient outcomes within inpatient or outpatient specialized mental health settings is detailed. Finally, a discussion on the recommendations concluded from the findings will be provided for PCPs who hope to gain a better understanding of how to incorporate the family into the family practice settings to improve patient outcomes.

CHAPTER 2

Background

In their recent high-quality review, McIntyre et al. (2020) acknowledge that BD affects approximately 1-2% of the general population and is as high as 4% in some countries such as South Africa. There is a high rate of prevalence in younger individuals with as many as 70% of individuals who eventually are diagnosed demonstrate clinical features before the age of 25 years old (Nowrouzi et al., 2016). The economic burden of BD is substantial, with costs estimated at $202 billion in the United States of America (USA) and most of the cost is “due to comorbid, chronic non-communicable diseases that disproportionately affect people with bipolar disorders” (McIntyre et al., 2020, p.1842). The overall economic cost of mental illness in Canada is 51 billion per year (Smetanin et al., 2011). Of this, $21.3 billion is related to direct costs such as hospitalization, medication, clinic visits, and care from support staff, while $6.3 billion is related to an annual waged-based productivity impact due to mental illness (Smetanin et al., 2011). This cost analysis is likely to underestimate other factors such as the costs to other systems involved with justice, social service, education, child and youth services, informal caregiving, as well as to individual’s quality of life (Smetanin et al., 2011). While the financial impacts are significant and broad, the impact both to families and how they can support patients remains overlooked.

BD has many far-reaching effects in patients that are not always initially considered. Up to 90% of those with a diagnosis of BD will have at least one medical or psychiatric comorbidity (Merikangas et al., 2007). The World Mental Health Survey reported that there was a 62% lifetime prevalence of having three or more mental health comorbidities using the DSM-5 criteria (Merikangas et al., 2011). Individuals with BD have a 20-30 times higher rate of suicide than the general population and are 15-20% more likely to die by suicide (Dong et al., 2019). In addition, those with bipolar II disorder are more likely to attempt or die by suicide in comparison to those with bipolar I disorder (Plans et al., 2019). Alcohol and substance use disorders are other common mental health comorbidities and as high as 50-60% of those with BD have one or both (Messer et al., 2017). In addition, a high prevalence of anxiety disorders and attention-deficit disorder has been associated with BD as well (Merikangas et al., 2011).

Other complicating factors of BD include cardiometabolic disorders (Kilbourne et al., 2013), diabetes and cardiovascular disease, with cardiovascular complications the most common cause of premature mortality (McIntyre et al., 2020). Estimates of early mortality suggest that those with BD have approximately 9-13 less years when compared to the general population (McIntyre et al., 2020). Psychotropic medications used frequently to treat the disorder increase the risk of cardiometabolic risk factors such as excessive weight gain (Kilbourne et al., 2013). These medical comorbidities seem to be the key driver of health-related costs associated with the disorder (Kilbourne et al., 2013). Alcohol and substance use disorders are other common mental health comorbidities and as high as 50-60% of those with BD have one or both (Messer et al., 2017). In addition, a high prevalence of anxiety disorders and attention-deficit disorder has been associated with BD as well (Merikangas et al., 2011).

Psychosocial functioning appears to be significantly impacted in those with BD when compared to the general population (McIntyre et al., 2020; Chiu & Chokka et al., 2011) and includes multiple domains such as social, psychological, and occupational, which help determine an individual's overall quality of life (QoL) (Bennett et al., 2019). Individuals diagnosed with BD have characteristic periods of euthymia between mood symptoms but still suffer from impaired psychosocial functioning that has lasting effects long term (McIntyre et al., 2020). In a landmark review by Bennett in 2001, the authors found that 30-60% of individuals experience significant impairments in the social and occupational domains, but whether this dysfunction is due to BD or other comorbidities remains unclear (Bennett et al., 2019). Psychosocial dysfunction can include "[h]igh rates of interpersonal dysfunction, relationship discord, vocational loss and maladjustment, comorbidity, human suffering, trauma, and suicidality" (McIntyre et al., 2020, p.1847). The scope and widespread consequences of BD is essential to consider in the context of family units as each patient may experience a range of symptoms, comorbidities or dysfunction that requires tailored approaches to support people with BD in family practice settings.

Current Management of BD

The current management of BD includes hospitalization in psychiatric observation units for acute episodes of mania or depression under the direct supervision and management by a psychiatrist (American Psychiatric Association, 2010). For outpatient and maintenance management, pharmacotherapy as well as adjunctive psychosocial interventions are offered such as psychotherapy (individual or group), patient support groups, cognitive-behavioral therapy (CBT), psychoeducation, and interpersonal and social rhythm therapy (IPSRT) (Miklowitz et al., 2007). Goals include the prevention of manic, hypomanic, and depressive episodes; treatment of current mood symptoms to achieve a euthymic state; suicide prevention or reduction of suicidal tendencies; treatment or prevention of medical and psychiatric comorbidities; improvement in quality of life; management of sleep or circadian disturbances; and the protection of cognitive function (McIntyre et al., 2020). Despite current treatment modalities, relapse rates remain high for individuals, with approximately 40-60% experiencing relapse within the first 1-2 years after the first manic episode (Kessing et al., 2018). In one study, at the time of discharge from hospital from a first-time manic episode, only 37% of adults achieved full functional recovery and syndromal improvement within 18 months (Tohen et al., 2000). Recovery is higher for individuals who experience shorter duration of illness or fewer episodes (McIntyre et al., 2020). The low recovery/relapse rates and temporary syndromal improvement raises questions about what the gaps are in current treatment regimens or implementation that could improve outcomes long term. Overall, better illness outcomes are well documented in individuals who have an absence of rapid-cycling, stable-episodic presentations, strong social supports, and in those who are engaged in treatment programs specialized in the management of BD (Kessing et al., 2013). This emphasizes the need for timely diagnosis, early treatment initiation, and improved approaches that addresses all facets of BD and the varying presentations seen in individuals (McIntyre et al., 2020).

Current treatment modalities focus primarily on pharmacotherapy as the standard of care with well-documented empirical evidence that supports medications as a first-line treatment for bipolar mania and depression (McIntyre et al., 2020). Despite patients seeking pharmacotherapy treatment, medication nonadherence remains high, with adherence rates ranging from 23-68% (Perlick et al., 2010). Reasons for this wide range may be due to lack of insight, feeling well, cost of treatment or unfavorable medication side effects (Perlick et al., 2010). There are few effective pharmacotherapy treatments that have proven efficacy in the maintenance phase of the illness to manage both mania and depression equally (McIntyre et al., 2020). For example, Lamotrigine has proven efficacy in the maintenance of depression but not mania, or Aripiprazole has proven efficacy in reducing and delaying the onset of mania but not depression (McIntyre et al., 2020). There appears to be insufficient evidence as to what medications should be discontinued and at what point during maintenance therapy, and that many patients may require indefinite therapy (McIntyre et al., 2020).

Additional non-pharmacological therapies such as psychosocial interventions, lifestyle modifications, and neurostimulatory therapies are also recommended (McIntyre et al., 2020). There appears to be lack of empirically supported evidence in clinical practice to manage issues common to BD including treatment-resistance, multiple comorbidities, and maintenance of euthymic states (Post et al., 2019). During the maintenance phase, psychosocial interventions improve medication compliance, reduce morbidity, and improve overall quality of life (McIntyre et al., 2020). Therefore, psychosocial interventions, including those facilitated or led by family, play a vital role in the management of BD.

Pharmacotherapy does not address other complexities of the disorder such as vocational issues or loss, maladjustment problems, relationship conflict, interpersonal dysfunction, suffering, trauma, or financial crisis, which warrants the need for additional adjunctive treatment options such as psychosocial therapies (McIntyre et al., 2020). Therefore, the management of BD is inclusive of psychosocial therapies, but we don’t know exactly how to best support these interventions in the family practice setting when referral to specialized programs is not possible or delayed due to access barriers. Although family-focused approaches belong in the realm of psychosocial interventions, these types of interventions may be frequently overlooked when PCPs are thinking about recommendation to patients.

Role of the Family

The Data from the National Comorbidity Study Replication conducted in America found that "only one third (33.8%) of patients with bipolar disorder utilized any outpatient mental health service in a 12-month period, and of these, only half (47.7–49.8%) attended often or systematically enough to receive minimally adequate treatment according to official treatment guidelines for bipolar disorder” (Perlick et al., 2010, p.635). In a publicly funded health system, seldom is family psychoeducation practiced, despite family interventions for BD being available and recommended to improve clinical symptoms of patients by involving their caregivers (Perlick et al., 2010).

As patients with BD will spend much more of their lives outside a hospital than within it, family can be an essential part of the community care system involved in helping the patient (Fiorillo et al., 2015). Family members also appear to be significantly impacted by the illness itself (Fiorillo et al., 2015). BD is associated with high levels of family instability and patient disability (Fiorillo et al., 2015). Studies also show a significant amount of caregiver burden in both the acute phase of illness as well as during stages of remission (Perlick et al., 2018). Higher rates of burden and/or health problems in caregivers are associated with poorer outcomes in patients with BD, such as decreased medication adherence, and increase risk for relapse or suicidal behaviour (Perlick et al., 2018). With this awareness, including the family could have benefits for both the patient and family, and such psychosocial interventions already exist that are aimed at addressing the whole family.

There are multiple psychosocial interventions utilized in the management of BD that are focused on individual, family, or group therapy approaches. One such approach includes the use of family-focused treatments which helps to support both patient and caregivers while playing an important adjunctive role in the management of BD. Throughout the literature there appears to be a surplus of terms used for family-focused approaches that include family-focused therapy (FFT), family-focused interventions (FFI), family-focused psychoeducation (FFPE), Falloon model of psychoeducation family intervention (PFI), multifamily group psychoeducation (MFGP), and family psychoeducation. Table 1 provides descriptions of each term.

Table 1 *Varying Family-Focused Treatments and Models*

Treatment	**Description**	**Focus**
Family-focused therapy (FFT)	Developed in mid-1980s as intervention for BD following acute manic or depressive episode for those being discharged from hospital to the care of family members (Miklowitz & Chung., 2016). Adapted for BD from the Falloon model for schizophrenia and includes 9 months of behavioral family management (Miklowitz & Chung., 2016).	Patients and family members
Family-focused intervention (FFI)	Broad based term used to describe any psychosocial intervention that includes the family and targets mood or psychiatric disorders (Varghese et al., 2020).	Family with or without patient involvement
Family-focused psychoeducation (FFPE)	Broad based term that includes any psychosocial intervention that includes the family with/without the patient and provides education on multiple aspects of mood disorders as well as illness course, communication, personal health and coping skills (Ong & Caron, 2008). Adapted based on each practitioner conducting the intervention.	Family with or without patient involvement
Carer-focused intervention	Family psychoeducation intervention that includes caregivers only (Madigan et al., 2012)	Caregivers but still measures patient outcomes
Multifamily group psychoeducation (MFGP)	Structured carer-only sessions over 5 weeks which was adapted from Mueser,	Caregivers only, no patient involvement in intervention

	Gingrich and Rosenthal (1994) framework for schizophrenia using Miklowitz (2002) guidelines for family-focused therapy in BD.	
Falloon model of psychoeducation family intervention (PFI)	Developed originally in 1985 for patients with schizophrenia and their family and adapted in by Miklowitz & Goldstein (1997) for BD. Sessions over 4-6 months include: “individual and family assessment; information on characteristics of the disorder, its treatment, early warning signs, management of suicidal behaviours; communication skills; problem solving skills; booster sessions” (Fiorillo et al., 2015, p.293)	Patients and family members

There appears to be no single inclusive definition of family-focused approaches used but all descriptions contain some overlapping features or are adapted from one another. For example, FFT and the Falloon model of psychoeducation are adapted from the same model for schizophrenia but differed in the length of the sessions delivered to patients based on each study. The MFGP is a form of a carer-focused intervention, which arguably could be used as an umbrella term for any psychosocial intervention that includes family members only in the intervention. This raises the question as to how these types of therapies listed in Table 1 can be used to support outcomes in the patient with BD in the family practice setting where this type of approach is rarely implemented but increasingly necessary. Family-focused approaches will be used throughout this paper as an encompassing term to speak to the various types of treatments outlined in Table 1. This broad term was selected to intentionally avoid focus on one type of family therapy or intervention and to understand what can be learned from each type and adapted toward the family practice setting.

Practice Contexts in Primary Care

Family practice settings are often the initial stage in diagnosis, management, treatment, and referral to specialized care (Chung et al., 2007). There is also an increased understanding that PCPs are not particularly trained in being sole providers of the dynamic issues that present with BD but require a more collaborative model to address all aspects of care (Goodwin et al., 2016). Evidence suggests that approximately 10-38% of patients with BD are exclusively managed in primary care settings (Kilbourne et al., 2013).

In the US, about 40% of those diagnosed with unipolar depression also exhibited "subthreshold bipolar manic symptoms" (p.2) and yet half of patients with BD never receive any form of mental health specialty services or treatment (Kilbourne et al., 2013). Similar studies could not be found in Canadian populations for comparison. Treatment guidelines have been suboptimal in addressing the complexity of BD and the unique comorbidities and psychosocial presentations (Kilbourne et al., 2013). The recommendation remains that psychotherapy and psychoeducation should be used as adjunctive treatments to pharmacotherapy, but these treatments have not been routinely implemented in the family practice setting, demonstrating an implementation gap (Kilbourne et al., 2013).

PCPs rarely have the time, training, or resources to provide lengthy appointments with patients in routine practice (Kilbourne et al., 2013) which may lead to underdiagnosis or inaccurate diagnosis. There are several brief screening and symptom assessment tools that can be used in family practice settings such as the Mood Disorder Questionnaire (MDQ), Hypomania Checklist (HCL-32) and Bipolar Spectrum Diagnostic Scale (BSDS) (Kilbourne et al., 2013).

Typically, these are used for diagnostic screening and their reliability for routine use individually is not recommended but rather should be used in conjunction with referral to a psychiatrist (Kilbourne et al., 2013). In addition, screening tools are only as good as the insight that the patients can provide, which there is often an under-reporting of manic-type symptoms in patients (Kilbourne et al., 2013).

With patient consent, inviting family members to regular assessments can be useful to provide collateral information that might not otherwise be identified by the patient (Kilbourne et al., 2013). Screening and diagnostic tools do little to help in guiding management of the illness itself but are more of an indication for the need for speciality referral (Kilbourne et al., 2013). In primary care, healthcare providers (HCPs) provide appropriate screening for mental illness, but there is less guidance following diagnosis and more focus is needed on the chronic disease management of BD during the maintenance phase of the illness (Chiu & Chokka, 2011). Despite many people with BD being managed exclusively in primary care, the common practice continues to focus predominantly on screening and preliminary diagnosis, with the expectation that patients will be referred on to specialty services after diagnosis for continued management. This is frequently not the case in Canadian contexts, particularly rural settings, and further resources are needed to support patients in the management/maintenance phase of the disorder, such as with the use of family-focused approaches.

Family practice settings are increasingly responsible to support maintenance phase for people with BD, however, PCPs are not equipped to manage this as most tools focus on screening and diagnosis. PCPs responsible for diagnosis and management include physicians, nurse practitioners, and medical residents. Terry and Terry (2019) found that medical residents infrequently used therapeutic interventions to address mental health issues and specific training to address the behavioral health competencies in routine primary care assessments seems to fall short to address complex mental health issues (Terry & Terry, 2019). Similarly, in a comprehensive literature search, no studies were found that evaluated the mental health components of the nurse practitioner curriculum to determine preparation and capability of meeting complex mental health needs (Theophilos, Green & Cashin, 2015). Neither family physicians or nurse practitioners are exclusively more equipped to manage these patients, and both provide care in urban and rural settings.

More integrated care models involving an interdisciplinary approach have demonstrated promising outcomes in management of the patient with BD (Terry & Terry, 2019). Consideration of team-based care may be helpful in supporting family-focused approaches in the family practice setting. In particular, thinking of family members as part of the team by providing them with relevant psychoeducation may help PCPs delivery of comprehensive and relevant care to patients with BD. A team-based approach in the family practice setting could help to implement family-focused approaches by utilizing other members of the interdisciplinary team such as registered psychiatric nurses, registered nurses, or social workers. This raises the questions as to the possibility of PCPs to undertake this work alone and promote more psychoeducation targeted towards patients and family members within routine encounters in conjunction with support from the interprofessional team.

Chronic disease management is a fundamental aspect of primary care for many medical conditions (Kilbourne et al., 2013). Rarely are PCPs trained in up-to-date guidelines or treatment algorithms that focus on the complexities of BD in chronic disease management (Kilbourne et al., 2013). There have been more recent guidelines, such as the Canadian Network for Mood and Anxiety Treatments (CANMAT), that provide some direction on managing co-occurring conditions as well as recommendations for psychosocial treatments. Clinical guidelines have routinely recommended and emphasized the importance of providing psychoeducation to the patient and family since family members are an important aspect of building the therapeutic alliance with the patient (Kilbourne et al., 2013). Family members also help in providing helpful information on recent mood symptoms or sub-syndromal symptoms that may be under-reported by the patient and may contribute to minimizing the overall consequences of the illness and detect early signs of relapse (American Psychiatric Association, 2010). Social supports offer important protective factors that can benefit those with mental illness, however, family involvement does not appear to be something routinely promoted in the primary care setting (Kilbourne et al., 2013). The American Psychiatric Association (2010) recommends that psychoeducation be provided to the family routinely as the retention and ability to understand and implement information will vary across the spectrum over time. However, no specific guideline provides clear recommendation on a specific family intervention for mania but do provide recommendations for bipolar depression and maintenance phases (CANMAT, 2018). The consensus appears to be to involve family often and provide psychoeducation about the illness, prognosis, and treatment.

Current Guidelines Recommendations for Family-focused Options

Decision support tools and guidelines are important components to guide clinical management of BD, especially in treatment-resistant or with other co-occurring conditions. Guidelines can provide some evidence as to if family-focused approaches are recommended in BD but do not provide deeper clarification as to what types of family interventions, what outcomes they improve or how these types of interventions should be implemented by HCPs. There have been several recent published guidelines that offer recommendations to PCPs, with the National Institute for Health and Care Excellence (NICE) (2014) and the CANMAT (2018) being the most current and commonly utilized in family practice settings.

The NICE (2014) guidelines on bipolar disorder provide general recommendations for patients, families and for health care professionals in primary and secondary care in the recognition, management, and implementation of treatment goals for patients. Reviewing the guidelines for recommendations based on family-focused management concepts, the guidelines encourage PCPs to involve carers or family members, maintain an ongoing relationship, and at least revisit the treatment plan yearly with family members. The NICE guidelines (2014) also recommend a high intensity psychological intervention such as CBT, interpersonal therapy, or behavioural couples therapy, be included in the patient's management plan (NICE, 2014). The guidelines recommend that psychological interventions be chosen based on the patient's preference and by any identified risk or benefit to the patient and family. The guidelines also recommend that in secondary care, structured psychological interventions should include either individual, group, or family-focused type interventions. These guidelines do not speak to rural practice settings or offer alternatives when there are accessibility issues.

The CANMAT and International Society for Bipolar Disorders (ISBD) (2018) guidelines are adapted from the NICE guidelines (Yatham et al., 2018). These guidelines were developed to synthesize the evidence, efficacy, safety profile, tolerability, and range of treatment options to assist clinicians in managing BD (Yatham et al., 2018). The CANMAT guidelines acknowledge the importance of psychosocial interventions in relapse prevention and quality of life for the patient and family (Yatham et al., 2018). The CANMAT guidelines provide no clear recommendation for any psychosocial intervention for acute mania but do recommend FFT for the treatment of bipolar depression (Yatham et al., 2018).

In the maintenance phase of the disorder, the guidelines provide recommendations for psychoeducation and FFT as appropriate adjunctive family-focused options (Yatham et al., 2018). The guidelines also recommend continued research in family/carer interventions that may provide helpful insights in supporting the patient and family (Yatham et al., 2018). The guidelines recommend FFT but don't report to what extent, how, and provide no evidence or studies conducted in family practice. Therefore, this paper is informed by the advice of these newer guidelines but examines further research to see what can be learned from specific types of family-focused approaches to support patient outcomes and how these can be implemented in practice in the family practice setting.

Geographical Context in Treatment

The management of mental health conditions largely falls on PCPs, especially in rural settings, further emphasizing the importance of utilizing treatment approaches that best support the patient (Terry & Terry, 2019). Notably, about half of patients who die by suicide were seen by their PCP within the month prior (Terry & Terry, 2019). PCPs' proficiency in managing BD is essential due to the high prevalence of patient encounters, especially in the rural setting where primary care may be the only healthcare resource or point-of-contact available to patients (Terry & Terry, 2019). In rural settings, the lack of resources for mental health is even more evident as considerable health inequities, health disparities, under-funding, and limited access to services have been well established (Goodwin, MacNaughton-Doucet & Allan, 2016). In addition, those with mental health issues in rural areas are less likely to have medical coverage, are more likely to miss their appointments, and are more likely to face other issues such as poverty, homelessness, transportation difficulties, and social stigma (Finley, 2020).

In rural settings, there is also shortage of trained mental health professionals and programs available to patients which prevents programs from being consistently offered to patients (Goodwin et al., 2016). Barriers include lack of access or availability of specialty services, stigmatization with accessing such services, and lack of provider knowledge, training, motivation, and time (Goodwin et al., 2016). The lack of time may be attributed to a greater demand on PCPs due to increasing workload, expectations, and expanding scope of practice (Theophilos et al., 2015). NPs may be in a better position to provide longer appointments to fewer patients because of how NPs are funded when compared to their physician counterparts who utilize a fee-for service model that creates shorter appointments and greater volume of patients.

There is a need for a more comprehensive management approach to improve outcomes and better support patients with BD in family practice, particularly in rural settings. Although involving the family through a family-focused approach or psychoeducation appears to have a protective factor that may assist PCPs in better screening, assessing, and managing patients, much remains unknown about how or why these approaches are not being routinely supported in the family practice setting. Therefore, the following questions were developed: How can family-focused approaches in the family practice setting support the patient BD? What can be learned from family-focused approaches to be utilized in the family practice setting? BD is complex and is increasingly managed in family practice. There's a lack of attention to the specifics of non-pharmacological management and PCPs need to treat BD more like a chronic disease and consider the numerous barriers to accessibility in rural areas. This review will analyze how psychosocial interventions and specifically family-focused approaches that are mentioned in numerous guidelines, can be implemented for rural family practice settings.

CHAPTER 3

Methods

To answer the research question, a literature search was conducted and several studies including randomized and clinical trials, systematic reviews, and a meta-analysis were found describing family-focused psychoeducation in the management of bipolar disorder. Within the literature, the findings aimed to answer the following question: "How can family-focused psychoeducation be implemented in the family practice setting to support the patient with bipolar disorder?" The integrative review method was utilized as an evidenced-based approach to identify and collect literature that helps provide greater understanding into clinical questions (Whittemore & Knafl, 2005). Whittemore and Knafl's (2005) integrative review methodology were employed to provide a framework to which the primary search strategy was conducted that includes the following stages: problem identification, literature search, data evaluation, and data analysis.

Problem Identification

The first requirement was to conceptualize the initial search strategy (Whittemore & Knafl, 2005). This research was prompted by the need to improve outcomes in patients with bipolar disorder and whether family-focused approaches can help improve specific outcomes, what outcomes are most affected, and how PCPs can support family-focused approaches. In addition, whether any of the common family-focused approaches provided specific information on how to adapt these types of approaches within the family practice setting. There appears to be a need for PCPs to develop evidence-based strategies to positively affect patients with BD since management of the disorder is increasingly falling on these types of providers. In the management of BD, safer and more effective treatments have enabled patients to be managed by

PCPs (Chung et al., 2007). In addition, stigmatization, lack of availability of specialized care, longer waiting lists, and failure to follow through with referral have also increased the number of patients with BD being managed in family practice settings which has caused an increased responsibility on PCPs to find improved way to manage the disorder (Chung et al., 2007). Effective strategies are needed during patient interactions in the family practice setting to prevent relapse and the compounding negative effects that can occur with episodes of acute mania or depression. This integrative review assumes that PCPs can impact patients positively by identifying social supports and improve protective factors for patients through use of family-focused approaches.

Literature Search

The first step in developing the search strategy for selecting literature to answer the research question was to define the eligibility criteria. Table 2 provides inclusion and exclusion criteria that was considered for this review.

Table 2 *Eligibility Criteria for Integrative Literature Review*

Inclusion Criteria	**Rationale**
The study contained family-focused psychoeducation, therapy, interventions, or treatment in the management of bipolar disorder that directly impacted patient outcomes	This helped to ensure a comprehensive search that included all definitions inclusive of a family-centered approach that may provide helpful insights into clinical practice
The study assessed family-focused approaches in the hospital, community or outpatient setting	the search required assessment of healthcare settings in which family-focused approaches have already been implemented
The study analyzed multiple psychosocial interventions, including family-focused approaches, and included adults (18yrs and older) within their selection criteria	Conclusions could be drawn on family-focused approaches within the adult population, regardless of other concurrent psychosocial interventions being included within the study

The study was published from 2010 - 2021	To ensure studies were current
The study included only adults (18 years and older)	Family members are not required to be involved in care planning or standard treatment approaches for BD in the adult population as they are for pediatric populations. In addition, BD presents atypically in children and adolescents and similarities and comparisons remain unclear
The study was in English	To ensure there were no translation issues
Exclusion Criteria	**Rationale**
The study included care of children or adolescents	Children and adolescents are dependent on caregivers to be involved in some level of care which makes direct comparison to adults challenging
The study analyzed more than one concurrent mental health disorder	Findings could be applied specifically to patients with bipolar disorder
Opinion pieces, editorials, conference abstracts or other papers that do not report outcomes	Original research, systematic reviews or metanalyses of original research provide high quality evidence to draw conclusions from and not enough detail can be ascertained
The study focused on group psychoeducation or individual psychoeducation that was not inclusive of family members	The research question focuses on the role of family in impacting patient outcomes so family members must be included
The study's primary focus was on the implementation, values, barriers, feasibility, or structure aspects of creating family-focused programs or treatment approaches	The aim of this integrative review is to analyze the direct outcome of family-focused approaches on patient outcomes rather than program implementation
The study only focused on the outcomes of family-focused approaches on family members OR focused on family member influence on the effectiveness of family-focused approaches	The aim of this integrative review is to analyze the effects of family-focused approaches on patient outcomes rather than solely on family member outcomes or influence

The inclusion and exclusion criteria helped to narrow down the literature search strategy within the elements of the research question.

The second stage was to conduct the literature search (Whittemore & Knafl, 2005). This integrative review considers areas of medicine, psychology, and nursing to illicit the full scope of research available and provide useful recommendations and evidence-based strategies that would include concepts related to family-focused approaches and BD. Once eligibility criteria were determined, a peer-reviewed literature search was conducted through the follow the following databases: CINAHL, Medline, PsycINFO, and Academic Search Premier. Databases were chosen that focused on the psychology, medicine, and nursing to ensure all elements of the research question were included. The initial literature strategy was conducted utilizing key words and medical subject headings (MeSH) terms related to bipolar disorder, family treatment and/or psychoeducation, and primary care. DiCenso, Guyatt, and Ciliska (2005) informed the evidenced-based search terms related to nursing in medical literature for the preliminary search strategy which organized terms by population, problem, and intervention. The search terms seen in Table 3 were used during the search strategy in various combinations within each database.

Table 3 *Integrative Review Search Subject Terms Utilized in Specified Databases*

Population	Bipolar, bipolar disorder
Problem	Family-centered care, family-focused, family-based
Intervention	Family therapy, family intervention, family treatment, psychoeducation, psychotherapy, primary care, community program, inpatient program

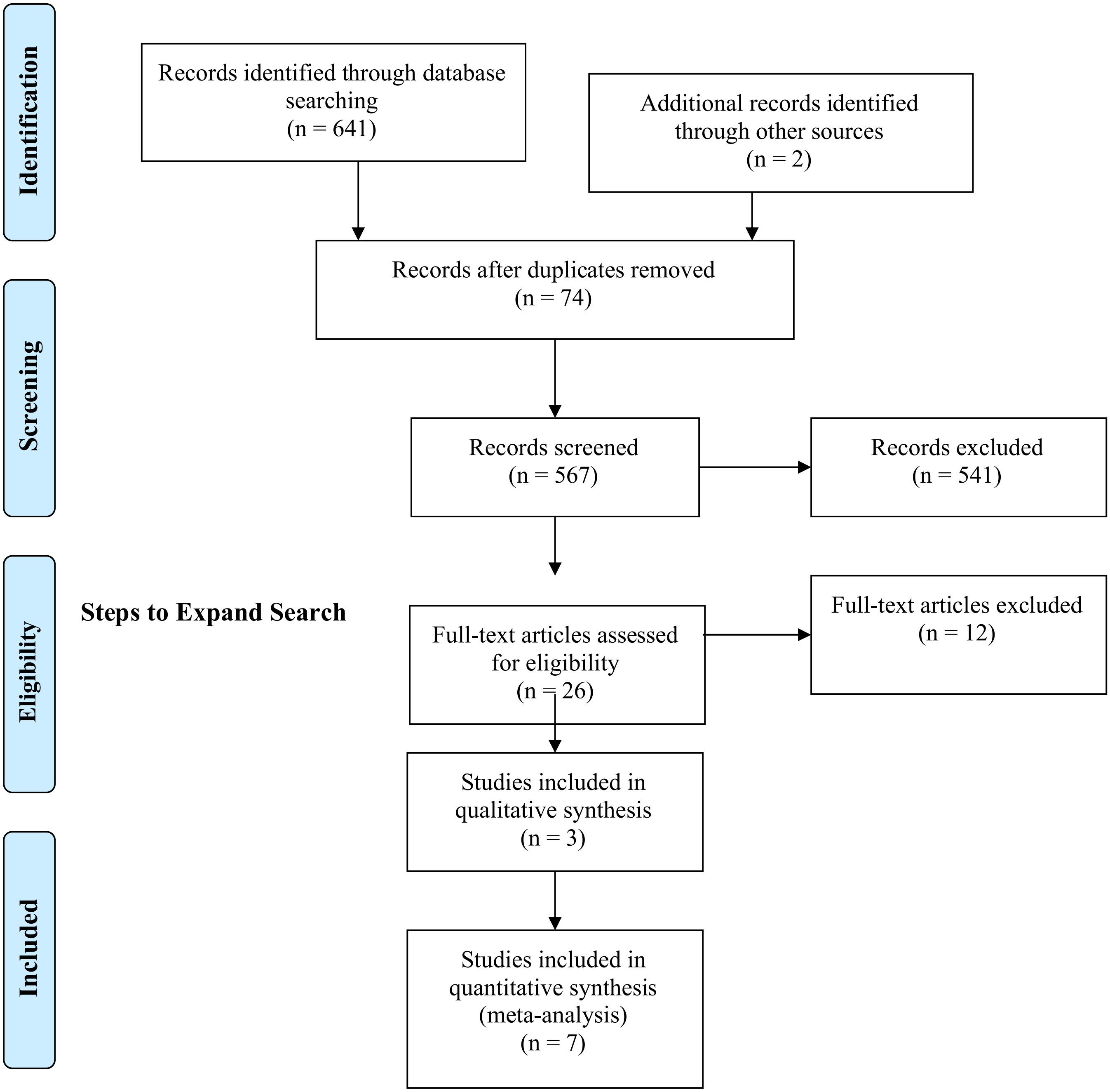
To conduct the search strategy, the expertise of a health science librarian was sought on January 29, 2020. CINAHL, PsycINFO, Medline, and Academic Search Premier were utilized as the databases used to retrieve the literature. The words “bipolar, bipolar disorder+” AND “family therapy” OR “family N3 (intervention* OR therap* or treatment* or psychoeducation*)” OR “family-focused OR “AB (family-centered OR family-centred)” OR “AB family-based intervention* or therap* or treatment*. or psychoeducation*” OR “(MH “Psychoeducation”).” The limiters applied included: English language, academic journals, adult (19 years +), and articles published between 2010-2020. The only exception was that the Academic Search Premier database did not allow an age limiter, which resulted in a higher number of articles. The CINAHL, PsycINFO, Medline, and Academic Search Premier database resulted in 57, 92, 170, and 321 articles respectively. No database yielded any results when used with any combination of words with primary care. Within each database, the titles and abstracts were then scoped for the inclusion and exclusion criteria and relevance to the topic. If an article did not meet the inclusion and exclusion criteria, then the background and relevant discussion were analyzed for supportive content surrounding the research question. Reference lists of selected articles were also reviewed and used for retrieval of relevant articles.

Data Evaluation

In the data evaluation stage, the search strategy included filtering through individual articles to select those that were relevant to the topic (Whittemore & Knafl, 2005). The topic lacks a significant body of literature which made selecting several studies challenging for this review since most studies did not evaluate similar population groups or outcomes. The inclusion and exclusion criteria were utilized to guarantee literature that was relevant to the topic but still included a wide breadth of research. According to Whittemore and Knafl (2005) the extraction of data from primary studies is based on specific methodological features which helps evaluate the overall quality of the study and is conducive to research designs that are similar with narrow sampling rather than considering any one study as a ‘gold standard.’ An evidence pyramid helped guide the selection of studies that included original research, which resulted in a selection of systematic reviews, meta-analysis, cross-sectional studies, observational real-world studies, and randomized control and clinic trials.

Within the focused search, 42 cumulative articles were identified within the 4 separate databases. After the remaining 42 articles, 16 duplicate articles were removed, and 26 articles were shortlisted. Additionally, 16 studies were excluded as the studies included children and adolescent patients, focused on family outcomes, focused on how to implement programs in specialized mental health outpatient settings or analyzed overlapping studies that were already included on further review. Each article met the inclusion criteria and was further reviewed for relevance to the topic. See below for the PRISMA flow diagram, which is a systematic reporting tool that helped map out the number of articles used based on eligibility criteria (Moher et al., 2009).

Figure 1 *PRISMA Flow Diagram*



From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. doi:10.1371/journal.pmed1000097

Variability in the methods and outcomes were identifiable in each study selected for this integrative review, which provided challenges in presenting the content in a simplified format. Therefore, during this data extraction process, a table was used to compare similar outcomes and shared findings across each article. For each article, content was examined to determine if these outcomes were present in each article and marked within the table. The table was divided into patient and caregiver outcomes. This was important to include for PCPs who are interested in addressing specific outcomes, so that PCPs can assess what type of intervention will be best.

The outcomes were extracted individually from each article, some articles demonstrated overlapping outcomes while others had isolated outcomes not measured in any of the other selected articles. When analyzing the systematic reviews or meta-analysis that focused on more than one type of psychosocial intervention, only outcomes that focused on family-focused psychosocial interventions were used. The categories within the table provided a simpler way to organize common themes and shared findings across articles selected for this integrative review. The categories will also help to interpret the findings by identifying areas that have been well studied to support patient outcomes, while identifying inconsistencies and gaps in the literature.

By the end of the focused search, ten primary studies were included for this integrative review. These included two randomized control trials (RCT) (Madigan et al., 2012; Perlick et al., 2010), one randomized clinic trial (Perlick et al., 2018), two cross-sectional studies (Dunne et al., 2019; Gex-Fabry et al., 2015), one observational real-world studies (Fiorillo et al., 2015), two systematic reviews (Oud et al., 2016; Popovic et al., 2013), and two meta-analyses (Chatterton et al., 2017; Macheiner et al., 2017). See Appendix A for the literature review matrix that provides an overview of each study.

Data Analysis

In the data analysis stage, “data from primary sources are ordered, coded, categorized, and summarized into a unified and integrated conclusion about the research problem” (Whittemore & Knafl, 2005, p.550). The 6 primary studies, 2 systematic reviews, and 2 meta-analyses selected for this integrative review were analyzed for supporting themes, similar content, evidence, and for any identifiable issues within each article. Specifically, each article was examined for family-centered themes and categorized into patient and caregiver outcomes which was entered into a table during the data extraction phase. Data was then analyzed for significance in each of the outcomes measured and determined whether the outcomes provided meaningful insight into the use of family-centered psychosocial interventions that could be used in the family practice setting to support patient outcomes with BD. Additionally, key aspects of each intervention were analyzed whether adjustments could be made to clinical practice in the family practice setting when caring for the patient with BD. Each theme contains recommendations to improve care and trajectory of illness in the patient with BD, which will be discussed within the findings section of the review.

Although no studies discuss programs or psychoeducation in family practice settings, the evidence supports the use of family-centered care as an important component in the general psychiatric treatment in BD and as an adjunct to pharmacotherapy (Chung et al., 2007). Studies excluded from this review still provide substantiative evidence in the support of family-focused psychoeducation while focusing on other aspects that the research question in this integrative review does not address, such as feasibility of implementation, issues of adherence and application, structure and length of family-focused programs, dissemination in community settings, and predictors of patient and caregiver distress and family outcomes. The next section of this paper will discuss the findings within the ten articles reviewed and disseminate the findings based on respective themes.

CHAPTER 4

Findings

This integrative review addresses how family-focused approaches support outcomes in the patient with bipolar disorder. After completing the search strategy, ten articles were identified, as well as common themes within each study that could be grouped into specific findings that included patient and/or family outcomes through a different lens. Caregiver outcomes were included in addition to patient outcomes to demonstrate the effects that family-focused approaches can have on the entire family dynamic. Some common themes focused on improvements in global functioning, positive family change or caregiver burden, whereas others focused on symptom improvement, relapses, and time to recovery. The methods and types of family interventions varied from each article, which required a simplified format to draw comparative conclusions from. Table 9 provides a thematic analysis to demonstrate any overlapping outcomes identified by each study. All studies were reported in specialized outpatient mental health settings. Further, the outcomes being measured within each study and intervention were all different and measured at various intervals. The outcomes included in these findings are only those demonstrating a significant improvement from the patients baseline after the intervention. Positive or significant outcomes were those that demonstrated a power <0.05. The meta-analysis and systematic reviews that analyzed more than one type of psychosocial intervention will be evaluated for the findings found from only family-focused approaches that are not limited to interventions, therapy and/or psychoeducation. The findings from all articles were evaluated for supportive content and usefulness to which conclusions can be drawn from and related to the research question such as setting, team members involved in the intervention, outcome measures, description of the intervention, follow-up of the intervention or patient, and limitations identified as relevant for family practice settings.

Settings

Each study that met criteria for this integrative review were conducted in outpatient programs within specialized mental health settings, except for one article within the Chatterton et al. (2017) meta-analysis. This demonstrates the lack of research in family-focused approaches in primary care and raises the question as to what can be learned and applied in these types of settings to benefit patient outcomes. See table 4 below that outline the settings and locations of each study included within each article reviewed.

Table 4 *Integrative Review: Setting Types*

Study	**Setting**	**Location**
Chatterton et al. (2017) Meta-analysis:		
Miklowitz et al. (2000 & 2003)	Specialized outpatient mental health setting	USA
Miller et al. (2004)	Specialized outpatient mental health setting	Rhode Island, USA
Rea et al. (2003)	Specialized outpatient mental health setting	Los Angeles, California
Renaires et al. (2008)	Specialized outpatient mental health setting	Barcelona, Spain
Van Gent & Zwart (1991)	Specialized outpatient mental health setting	Utrecht, Netherlands
Brodbar et al. (2009)	In-patient hospital setting	Mashhad, Iran
Already analyzed in this review: Madigan et al. (2012) & Perlick et al. (2010)		

Dunne et al. (2019)	Not applicable	Sydney, Australia
Fiorillo et al. (2015)	Specialized outpatient mental health setting	Naples, Italy
Gex-Fabry et al. (2015)	Specialized outpatient mental health setting	Geneva, Switzerland
Macheiner et al. (2017) Meta-analysis: Miklowitz et al. (2007) Already analyzed: Miklowitz et al. (2003)	Specialized outpatient mental health setting	USA
Madigan et al. (2012)	Specialized outpatient mental health setting	Dublin, Ireland
Oud et al. (2016) Systematic review and meta-analysis: D'Souza et al. (2010) Already analyzed: Miller et al. (2004) Perlick et al. (2010) Boardbar (2010) Madigan et al. (2012) Renaires et al. (2008) and Van Gent & Zwart (1991)	Specialized outpatient mental health setting	Not identified
Perlick et al. (2018)	Specialized outpatient mental health setting	New York, USA
Perlick et al. (2010)	Specialized outpatient mental health setting	New York, USA
Popovic et al. (2013) Systematic review	Not applicable	Barcelona, Spain

The specialized mental health programs were run by interdisciplinary teams, individual therapists, or psychiatrists. How the setting of these specialized program differ from family practice settings is limited because no single study provided a detailed description of the setting.

The locations of each community outpatient program were conducted in a variety of countries, which speaks to the interest in family-focused programs in the management of BD. The setting-type appears to be less important where the programs are conducted than the types or teams of providers offering such family-focused approaches. This is particularly evident when considering whether the intervention could be implemented in a family practice setting that is not focused primarily on mental health or whether a PCP has the skills or ability to offer the intervention. In addition, no study outlined the reality of including family members in the family practice setting, and therefore no clear evidence can be drawn from analyzing setting types such as including family members in appointments, appointment times, or the structure of such appointments. In terms of the goal of how family-focused approaches support people with BD, the fact that most of the studies took place in outpatient settings is encouraging to consider how the findings are relevant for PCPs and primary care teams who are not specialized in mental health. For this reason, the composition of the team involved in the intervention was examined to help identify feasibility of interventions being implemented in family practice settings by PCPs and/or primary care teams.

Team Members and Training

Determining the types of HCP offering this type of intervention and the training required to conduct such a family-focused intervention is helpful to determine the feasibility of PCPs to implement these approaches in the family practice setting to improve patient outcomes. However, on closer inspection, each study varied significantly in the types of providers and training offered to lead each intervention. Therefore, it was important to compare each study to determine similarities and differences in the preparation required to offer such interventions and what could be translated to PCPs. See Table 5 below for an analysis the types of team members involved in each training program and the terminology used are those used by the authors in each study.

Table 5 *Integrative Review: Team Members & Training Program Summary*

Study	**Team Members**	**Training Program Focus**	**Length of Training Program**
Chatterton et al. (2017) Meta-analysis:			
Miklowitz et al. (2000 & 2003)	Clinicians	Reviewed FFT therapy manual adapted from Miklowitz & Goldstein (1997), reviewed video-taped examples, served as co-therapists before receiving weekly supervision	Not applicable
Miller et al. (2004)	Therapist (master's degree in social work and extensive clinical experience)	No information provided	No information provided
Rea et al. (2003)	Therapist	Reviewed Miklowitz and Goldstein (1997) treatment manual, viewed a set of training tapes outlining the steps for conducting FFT, and apprenticed to a senior FFT therapist	No information provided
Renaires et al. (2008)	Therapists	No information provided	No information provided
Van Gent & Zwart (1991)	Psychiatrist and social worker	No information provided	No information provided
			No information provided

Brodbar et al. (2009) Already analyzed in this review: Madigan et al. (2012) & Perlick et al. (2010)	Psychiatrist, nurse, social worker	No information provided	
Dunne et al. (2019)	Not applicable	Not applicable	Not applicable
Fiorillo et al. (2015)	Psychiatrists, psychiatric nurses, psychologists, psychosocial rehabilitation technicians	Assessment of the patient and family, psychoeducation on BD, characteristics, treatment, early warning signs, management, suicidal behaviors, communication and problem-solving skills, assessment tools	60 hours over three 2-day sessions and an additional 5 days on assessment tools
Gex-Fabry et al. (2015)	Registered nurses	No information provided	No information provided
Macheiner et al. (2017) Meta-analysis: Miklowitz et al. (2007)	Certified study psychiatrist and certified clinical interviewer (psychiatrist, psychologist, social worker, or psychiatric nurse)	Training was supervised by nationally recognized experts in specific intensive treatment. Treatment specialists provided telephone supervision to therapists for the first 2 patients. Therapists sent up to 6 audiotaped sessions to the treatment specialists for review.	Training involved 6-hour workshops supplemented by treatment manuals

Already analyzed: Miklowitz et al. (2003)			
Madigan et al. (2012)	Psychiatric nurse and psychiatric social worker	No information provided	No information provided
Oud et al. (2016) Systematic review and meta-analysis:			
D'Souza et al. (2010)	Four mental health clinicians	Led and trained by one of the authors – supervision and monitor was done every three weeks	No information provided
Already analyzed: Miller et al. (2004) Perlick et al. (2010) Boardbar (2010) Madigan et al. (2012) Renaires et al. (2008) and Van Gent & Zwart (1991)			
Perlick et al. (2018)	Clinicians from a local psychiatric clinic, medical center, and support group	No information provided	No information provided
Perlick et al. (2010)	Masters-level clinical doctoral students	No information provided	No information provided
Popovic et al. (2013) Systematic review	Not applicable	Not applicable	Not applicable

In analyzing each study individually, it became evident that most studies were not transparent in reporting the types of training offered to the clinicians or HCPs conducting the family-focused intervention. This could be attributable to each study focusing on what was included in the intervention to the participants rather than extent of the training required of HCP to provide the intervention to participants. Another assumption could be that the knowledge was already expected of experienced clinicians to offer certain types of family-focused approaches or that there was already familiarity with psychoeducation in BD and therefore no additional training was needed besides the initial study briefing. Clinician remained an ambiguously used term, with no mention of what training was required to be considered a clinician, which made it difficult to draw clear conclusions.

There were a few articles that provided more in-depth information on training of team members. Within the Chatterton et al. (2017) meta-analysis, the Rea et al. (2003) study provided training for therapists that focused on the goals of each intervention. The trainers were supervised during sessions weekly and had audiotaped sessions monitored routinely. There was limited information provided as to the extent or length of training, the overall efficacy, or whether the therapists perceived the training to be helpful.

The Fiorillo et al. (2015) also provided the most transparent information in preparing the various types of HCPs conducting the intervention. The clinicians received extensive training to be able to conduct the PFI model in BD. This study provided some insight because it demonstrated that various levels of educated professionals are able administer a PFI, which is promising that PCPs could be included in such training. No clear recommendations as to who would provide such training or how this training would be implemented to PCPs was offered. However, this offers some insight into a more team-based model where other interdisciplinary team members may be able to offer such an intervention. Overall, most studies included various levels of HCPs as seen in table 5, which aligns with a more interdisciplinary approach to administering a family-focused adjunctive therapy.

Measures (Instruments)

Screening for BD is important in the family practice setting where the first stage of screening for diagnosis occurs (Zimmerman, 2014). The second stage and confirmation of diagnosis should remain with a psychiatrist (Zimmerman, 2014). Instruments and scales can provide PCPs with additional tools for early recognition and diagnosis BD as well provide ongoing management and screening (Zimmerman, 2014). Instruments and scales can be used for both the patient and family for purposes of monitoring outcomes of family-focused approaches. The purpose of this section is to determine if there are any measures for screening, symptoms severity measures or ongoing evaluation of BD that can be used in the family practice setting through analysis of each article. There were over 35 different instruments used throughout the studies. See table 6 below for the description of each instrument identified in the articles included within this integrative review. Due to the underdiagnosis of BD in clinical practice, screening scales are a forefront recommendation because there is a strong need for early recognition (Zimmerman, 2014). Several instruments were identified as already commonly used in clinical practice but not necessarily family practice. Currently, the most used instruments in clinical practice include Mood Disorder Questionnaire (MDQ) and the Bipolar Spectrum Diagnostic Scale (BSDS) (Brenner & Shyn, 2014). Other instruments were identified to be more useful in research-type settings or for the diagnosis by psychiatrists. Whether clinician-observed versus patient reported instruments are more beneficial remains unclear. This section will review the most used scales identified across all studies within this integrative review and assess their use for family practice and monitoring of family-focused approaches. Of the most common instruments identified in this integrative review, the YMRS, HAM-D, MADRS, Mini 5.0, BPRS, and the SADS-C are the most current and validated measures that will be discussed because these instruments focus on symptoms, severity of symptoms or severity of illness. Instruments will be evaluated for sensitivity, specificity or validity and translated for use in clinical and family practice.

Table 6 *Integrative Review: Instrument Types*

Study	**Instrument**	**Description**
Chatterton et al. (2017) Meta-analysis:		
Miklowitz et al. (2000 & 2003)	Schedule for Affective Disorders and Schizophrenia Change Version (SADS-C)	36 item interview-based measure evaluates affective disorders and degree of impairment; ranges from 1 (absent) to 7 (very extreme) based on total affective symptoms
Miller et al. (2004)	Modified Hamilton Rating Scale for Depression (HAM-D)	HAM-D- 21 item clinician rated observation tool for depression; scores range from 0-7 which is considered normal/clinical remission and a score of 20 or higher is considered at least moderate severity
	Bech–Rafaelsen Mania Scale	Bech-Rafaelsen Mania Scale- 11 item clinician interview on mania symptoms within the last 3 days. Items are rated on a 5-point scale and totalled: mild (15–20), moderate (21–28), marked (29–32), severe (33–43), and extreme (≥44)
Rea et al. (2003)	Brief Psychiatric Rating Scale (BPRS)/SADS-C interviews	SADS-C- same as above BPRS- 24 item evaluates psychiatric symptoms and severity using a Likert scale ranging from 1 (not present) to 7 (extremely severe); lower scores indicate less severe psychopathology
Renaires et al. (2008)	Hamilton Depression Rating Scale (HAM-	

	D) Young Mania Rating Scale (YMRS)	HDRS- 17 item semi-structured interview for depressive symptoms; scores range from 0-4; higher scores indicate more severity YMRS- 11 item subjective report/clinical observation of mania symptoms over last 48 hours; scores range from 0-8; higher scores indicate more severity
Van Gent & Zwart (1991)	Trait Anxiety Inventory Interactional Problem-Solving Questionnaire Inventory of psychosocial problems Knowledge Test Mood Scale Symptom Checklist	No information provided on instruments within this study
Bordbar et al. (2009)	Data Questionnaire	Questionnaire that recorded number of psychiatric visits, patients' adherence, relapse status, number of rehospitalizations, and duration of remission until relapse
	Demographic Questionnaire	Age, duration of disorder, education, sex, benzo, and sodium valproate use
Already analyzed in this review: Madigan et al. (2012) & Perlick et al. (2010)		
Dunne et al. (2019)	The Social Adjustment Scale—Self-Report (SAS-SR)	SAS-SR- 54-item scale that assess social functioning. Scores range from 0-5 with higher scores indicating greater impairment.
	The Bipolar Recovery Questionnaire (BRQ)	BRQ- 36-item measure that assesses personal agency and self-reported recovery. Scores range

		from 0-4, higher scores indicate higher degree of recovery
Fiorillo et al. (2015)	BPRS	BPRS- same as above
	Personal Problems' Questionnaire (PPQ)	34 item scale that determines patients burden of illness. Scored range from 0-4 with higher scores determining greater degree of severity
	Family Problem Questionnaire (FPQ)	34 item scale that determines the family members burden of illness. Scores and questions are ranked the same as the PPQ
	Social Network Questionnaire (SNQ)	15 item questionnaires to assess the patient and family members social network and types of support received. Scores range from 1-4.
Gex-Fabry et al. (2015	The World Health Organization Quality of Life questionnaire (WHOQOL-BREF)	Self-administered and includes 26 items (range 1–5) and considers a time frame of 2 weeks. It allows computing four domain scores: physical health, psychological, social relationships, and environment (range 0–100).
	Two developed questionnaires to reflect the primary aims of the program (information about BD, relapse prevention, and development of communication skills)	Patients Questionnaire: 10 questions (coded 1 - 4) to assess the perceived benefit of their relative's participation Relatives Questionnaire: 13 questions to assess personal benefit and the patients benefit
Macheiner et al. (2017) Meta-analysis:		
Miklowitz et al. (2007)	Clinical Monitoring Form	Assesses clinical status and based on DSM-IV criteria
	Montgomery-Asberg Depression Rating Scale (MADRS)	Assesses severity of depression by self-report of depressive symptoms; higher scores indicate greater severity
	YMRS	YMRS- same as above

Already analyzed: Miklowitz et al. (2003)		
Madigan et al. (2012)	WHOQOL-BREF Knowledge of illness questionnaire, Involvement Evaluation Questionnaire, and General Health Questionnaire Global Assessment of Functioning (GAF)	Same as above No information provided Assesses severity of mental illness (social, occupational, and psychological) and effects on daily life. Scores are from 0-100 with higher scores indication greater degree of severity
Oud et al. (2016) Systematic review and meta-analysis: D'Souza et al. (2010) Already analyzed: Miller et al. (2004) Perlick et al. (2010) Boardbar (2010) Madigan et al. (2012) Renaires et al. (2008) and Van Gent & Zwart (1991)	YMRS MADRS Medication adherence scale (ARS)	Same as above Same as above Assess medication adherence; Scores include 0 = non-adherence, 1 = partial adherence, and 2 = full adherence

Perlick et al. (2018)	Hamilton Rating Scale for Depression (HAM-D)	Same as above
	Young Mania Rating Scale (YMRS)	Same as above
	Mini International Neuropsychiatric Interview (MINI Plus, version 5.0)	Semi-structured interview which identifies major Axis I disorders
	Short-Form Health Survey (SF)	Instrument used to assess a total mental component score and physical component score, evaluating 8 subscales in both categories
	Center for Epidemiological Studies of Depression Scale (CES-D)	20-item interview or self-report scale assessing depressive symptoms which correlates highly with other self-report depression measures
	Social Behavior Assessment Scale (SBAS)	Semi-structured interview to assess subjective and objective burden related to patient problem behaviors, patient role dysfunction at work and in home, and any adverse effects on others.
	Health Risk Behavior Scale (HRB)	9-item scale to assess behavioral health risks associated with caregiving
	The Brief Symptom Index (BSI)	The BSI is a self-report inventory designed to assess the psychological symptom status of patients and non-patients
Perlick et al. (2010)	Hamilton Rating Scale for Depression (HAM-D)	Same as above
	Young Mania Rating Scale (YMRS)	Same as above
	Mini International Neuropsychiatric Interview (MINI Plus, version 5.0)	Semi-structured interview which identifies major Axis I disorders

	Center for Epidemiological Studies of Depression Scale (CES-D)	20-item interview or self-report scale assessing depressive symptoms which correlates highly with other self-report depression measures
	Social Behavior Assessment Scale (SBAS)	Same as above
	Health Risk Behavior Scale (HRB)	Same as above
	Ways of Coping Questionnaire	6 item scale that measures avoidance coping, scores range from 0-5 with higher scores demonstrating more severity
	Quick Inventory of Depressive Symptomatology (QIDS-C)	16-item inventory, assess severity of depression
Popovic et al. (2013) Systematic review	Polarity Index (PI)	Novel metric that helps determine efficacy between psychosocial treatments, which in this study compared antimanic versus antidepressive prevention

The YMRS on review, demonstrates good validity and reliability in assessing the main symptoms of mania as per the DSM, as well as symptom severity in patients with BD and has a sensitivity of 93% and a specificity of 96% (Mohammadi et al., 2018). This instrument is also easy for clinicians to use and cost-effective, and only takes 15-30 minutes to administer (Mohammadi et al., 2018). The HAM-D on review, assesses severity of depression and should not be used for comparison to the DSM-5 diagnostic criteria for major depression. Current versions of the HAM-D demonstrated a sensitivity of 75% and a specificity of 84% for depression screening and take about 20-30 minutes to administer (Kraun et al., 2020). This instrument demonstrates good validity and utility for assessing depression severity but not for diagnosis of mood disorders (Kraun et al., 2020). The MADRS is another scale used to assess severity of depression symptoms and can be used in evaluating bipolar depression symptoms. The MADRS demonstrates a sensitivity of 85% and specificity of 81% (Hobden et al., 2017). In comparison to the HAM-D, the MADRS demonstrates higher reliability statistics in detecting early unipolar depression (Carneiro et al., 2015; Thase et al., 2021). However, it is more time consuming taking anywhere from 20-60 minutes dependent on users' familiarity (Hobden et al., 2017).

The MINI Plus 5.0 is a useful assessment tool using the DSM-5 criteria with the added mixed-feature specifier that is helpful in identifying depression symptoms in bipolar disorder hypomanic/manic episodes (Hergueta & Weiller, 2013). The MINI Plus 5.0 demonstrated a positive predictive value of 0.72 and a negative predictive value of 0.90 and was identified to have good concurrent validity along with psychiatric evaluation (Hergueta & Weiller, 2013). This version has been identified as useful in clinical and research settings and due to its simplicity can be administered in 15 minutes in primary care settings after a brief training session (Pettersen et al., 2018). The BPRS is another scale that is quick and easy to use for clinicians to use. The BPRS has a sensitivity of 71.2%, and specificity of 87.2% and demonstrates clinical validity with the exception clinical responsiveness for negative symptoms in depression (Park et al., 2017). The BPRS takes approximately 15-20 minutes to administer (Park et al., 2017). The SADS-C demonstrates excellent discriminant validity in bipolar mania as well as depression (Rogers et al., 2003). The scale requires only 15-20 minutes to administer and is useful in a variety of clinical applications (Rogers et al., 2003).

These instruments were utilized in research settings and therefore this review did not determine clear evidence on instruments or scales that should be used in the family practice setting to assess outcomes that may be positively affected by family-focused approaches over time. However, this review identified supplementary and validated scales that may be helpful to PCPs based on an individual patient's presentation in addition to regular instruments/tools used in clinical settings. These scales might be further used to assess illness severity which might help determine when or how to involve the family. No other clear conclusions could be drawn from analyzing the instruments in relation to the research question. The decision to use such scales based on ease of use, comfort, time, and availability is at the discretion of the PCP.

Intervention (Models/Programs)

Analysis of the types of interventions and programs within this integrative review provides helpful insights into the possibilities for use of family-focused approaches in family practice, whether through outsourcing to an interdisciplinary team or direct management within regular scheduled appointments. Time constraints appear to be an issue when analyzing each intervention within the context of implementing in a family practice setting, as each family-focused approach took a considerable amount of time. There were several overlapping features of psychoeducation throughout most studies. In addition, the Miklowitz and Goldstein's (1990 & 1997) manual for FFT provides clinical direction to offer psychoeducation for PCPs and other members of the interdisciplinary team. Comparing each intervention and program through Table 7 below, provided direct comparison of studies to determine what components could be extracted for use in the family practice setting.

Table 7 *Integrative Review: Model and/or Programs*

Study	**Model/Program**	**Description**	**Duration**	**Frequency**
Chatterton et al. (2017) Meta-analysis:				
Miklowitz et al. (2000)	FFT Model and manual (Miklowitz & Goldstein 1990, 1997)	3 modules: Psychoeducation (signs and symptoms, etiology, vulnerability-stress model, relapse prevention, medication compliance intervention, prodromal identification etc.), communication enhancement training (active listening, negative feedback, role playing etc.), problem-solving skills training (identification and executing plans for resolution)	9 months	21 one-hour family or marital sessions. Weekly for 3 months, biweekly for 3 months, and monthly for 3 months
Miklowitz et al. (2003)	FFT Model and manual (Miklowitz & Goldstein 1990, 1997)	Same as above	9 months	21, one hr sessions. 12 sessions weekly, then 6 bi-weekly, then 3 monthly
Miller et al. (2004)	Problem Centered Systems Therapy of the Family and manual	Short-term, problem-focused, semi-structured family intervention. Follows the principles of the McMaster Model of the Family Functioning which includes problem solving, communication, roles, affective responsiveness, affective involvement, and behavior control	Not stated	50 minutes. 6-10 sessions but varies based on family needs
Rea et al. (2003)	FFT Model (Miklowitz &	Semi-structured sessions with families. Focuses on 3 components which includes psychoeducation about	9 months	21, one hr sessions

	Goldstein 1990, 1997)	bipolar disorder, communication enhancement training, and problem-solving skills training. Structured based on individual family’s needs within each component.		
Renaires et al. (2008)	Psychoeducation group intervention for caregivers of euthymic bipolar patients	Semi-structured group sessions for caregivers. Focused on psychoeducation about illness, skills training, management, common issues, and coping strategies-- all of which focused on emphasizing families as allies in treatment and helping to reduce feelings of guilt.	3 months	12 weekly, 90-minute sessions
Van Gent & Zwart (1991)	Group psychoeducation to caregivers	Structured group sessions for caregivers that discussed illness, medication, managing own daily functioning, and interacting with patient	3 months	5 sessions
Brodbar et al. (2009)	Group psychoeducation to caregivers	Psychoeducation group session to family members. Patients received routine psychoeducation while in hospital. Sessions focused on symptoms, nature, type, and length of the treatment especially medications and their possible side effects and aggravating factors of bipolar mood disorder.	Prior to patients discharge from hospital	2 hours
Already analyzed in this review: Madigan et al. (2012) & Perlick et al. (2010)				
Dunne et al. (2019)	No program. This study assessed the	Not applicable	Not applicable	Not applicable

	relationship between mood symptoms, social support, and personal recovery.			
Fiorillo et al. (2015)	Falloon intervention for bipolar disorder, adapted from family-focused treatment (FFT) model developed by Miklowitz and Goldstein (1997)	Sessions include: "…individual and family assessment; information on characteristics of the disorder, its treatment, early warning signs, management of suicidal behaviours; communication skills; problem solving skills; booster sessions" (p.293)	4-6 months	12-18 sessions, 90minutes each
Gex-Fabry et al. (2015)	Adaptation from the family-focused treatment (FFT) model developed by Miklowitz and Goldstein (1997)	2 Phases Part 1: Experience sharing facilitated by clinicians discussing problem-solving strategies Part 2: Psychoeducation on illness course, symptoms and treatment options, prevention of relapse and early identification of prodromes and development of communication skills/conflict resolution	14 weeks, followed by 2 additional sessions 3 months later	2-hour duration weekly
Macheiner et al. (2017) Meta-analysis: Miklowitz et al. (2007)	Group psychoeducation	Psychoeducation on:	9 months	30 sessions

Miklowitz et al. (2003) Already analyzed	for patients and caregivers	Etiology, symptoms, progression, treatment, management, and creating plans for relapse prevention		
Madigan et al. (2012)	FFT based on the framework by Mueuser et al. (1994) and adapted for bipolar disorder according to Miklowitz and Goldstein's (1997) FFT model/guidelines for carers	As outlined in Miklowitz et al. (2000, 2003)	5 weeks	2hr sessions, weekly
Oud et al. (2016) Systematic review and meta-analysis: D'Souza et al. (2010)	Systematic Illness Management Skills Enhancement Programme for Bipolar Disorder (SIMSEP-BD)	Structured psychoeducation sessions on: patient/family perspectives, illness knowledge, symptoms, psychotherapy, pharmacotherapy, triggers/warning signs, mood charts, emergency planning, relationship issues/strategies, coping strategies, management plans, and resources	12 weeks	90-minute sessions weekly

Already analyzed: Miller et al. (2004) Perlick et al. (2010) Boardbar (2010) Madigan et al. (2012) Renaires et al. (2008) and Van Gent & Zwart (1991)				
Perlick et al. (2018)	No specific program, based on CBT format and research/theory on problem solving, behavioral analysis and cognitive reframing	2 phases: Education and goal setting- Education on bipolar disorder, communication strategies, relapse prevention. Assisted caregivers in setting goals that would promote self-care and relationship improvements, appropriate levels of support, and realistic expectations Behavioral analysis and self-care barriers- Helped to identify barriers to self-care, illness management and goals; and "implement corrective solutions formulated as specific behaviors tracked via a daily diary" (p.624).	12-15 weeks with the option (12 with option of 3 additional sessions)	45-minute sessions weekly
Perlick et al. (2010)	Authors developed a brief FFT-HPI to address caregiver health	2 Phases: Same as Perlick et al. (2018)	12-15 weeks with the option (12 with option of 3	45-minute sessions weekly

	behaviors/outcomes and patient symptoms		additional sessions)	
Popovic et al. (2013) Systematic review	No program. This study calculated the polarity index and ranked psychological interventions according to their efficacy profile	Not applicable	Not applicable	Not applicable

Analysis of each study regardless of duration of family-focused approach had several overlapping features of psychoeducation provided to patients, caregivers, or both. These include illness knowledge, symptoms, treatment knowledge/medications, psychosocial interventions/management, prodromal symptoms/relapse prevention, problem-solving and communication skills, and conflict resolution regardless if the study was conducted from a well-established model or program.

FFT remained the predominant model within the selected studies. The manual developed and adapted by Miklowitz, and Goldstein (1997) is delivered in 3 modules over 9 months and provides an overview of how clinicians can provide psychoeducation, communication enhancement, and problem-solving skills to patients and family members. This manual was also adopted in the Fallon intervention as the model of choice (Fiorillo et al., 2015). The Problem Centered Systems Therapy of the Family manual also provided an overview for clinicians to provide problem-solving and communication skills with additional aspects that analyzed responsiveness and behavior control (Miller et al., 2004). This appeared to be a shorter delivery (5-10, 50-minute sessions based on family needs) but not sectioned into the same modular format as the FFT manual by Goldstein (1997). The Systematic Illness Management Skills Enhancement Programme for Bipolar Disorder (SIMSEP-BD) is a newer model that offers structured psychoeducation topics as well but provided more detail on additional topics of emergency planning, resources, relationship issues and strategies, as well as information on mood charting (D'Souza et al., 2010).

The Perlick et al. (2010 & 2018) studies did not follow a specific program but included aspects of CBT, problem solving, cognitive reframing and behavioral analysis which is well researched in psychology. These may provide additional insights into facilitation of care planning that is inclusive of the patient in the family practice setting that complements psychoeducation recommendations. Specifically, the goal setting component and identification of self-care barriers to create realistic expectations and support for both the patient and caregiver (Perlick et al., 2018). The other articles did not necessarily follow a model or established program but offered psychoeducation based on topics selected by researchers. Most programs ranged from 3-9 months depending on the type of program or number of topics covered. Analyzing the programs provided the most useful content that could be adapted for use in the family practice setting.

Follow-up Periods

The follow up period significantly varied from article to article. This is an important aspect to consider in the family practice setting, and whether there is an opportunity or recommendation for follow-up periods over an extended period. In addition, this helps for comparison of interventions effectiveness, which will be discussed more explicitly in the outcomes section. See Table 8 below for a summary comparison of each study's follow up periods after each family-focused approach.

Table 8 *Integrative Review: Study Follow-up Intervals*

Study	**Follow-up Interval**
Chatterton et al. (2017) (Systematic review/metanalysis)	
Miklowitz et al. (2000)	Every 3 months for 1 year
Miklowitz et al. (2003)	Every 3-6 months for 2 years
Miller et al. (2004)	Weekly for 1 month then every 3 months for 28 months
Rea et al. (2003)	

Renaires et al. (2008) Van Gent & Zwart (1991) Brodbar et al. (2009) Already analyzed: Madigan et al. (2012) Perlick et al. (2010)	3-month intervals for a 1-year period of active treatment and a 1-year period of posttreatment follow-up Immediately and 6 months post-intervention Every 3 months for 1 year Every 3 months for a period of one year
Dunne et al. (2019)	No follow-up (Cross-sectional survey)
Fiorillo et al. (2015)	Immediately post-intervention
Gex-Fabry et al. (2015)	Median 4 years post-intervention
Macheiner et al. (2017) (Meta-analysis) Miklowitz et al. (2007) Already analyzed: Miklowitz et al. (2003)	Pre-intervention, quarterly for 1 year
Madigan et al. (2012)	1 year and 2-year post-intervention
Oud et al. (2016) (Systematic review/meta-analysis) D'Souza et al. (2010) Already analyzed: Miller et al. (2004) Perlick et al. (2010) Boardbar (2010) Madigan et al. (2012) Renaires et al. (2008) Van Gent & Zwart (1991)	Weekly for the first 12 weeks, then at 16, 20, 24, 32, 40, 48 and 60 weeks or until relapse or withdrawal
Perlick et al. (2018)	Immediately and 6-month post-intervention

Perlick et al. (2010)	Pre- and post-treatment
Popovic et al. (2013)	Not applicable

In analysis of each study, it became clear that each intervention had variable follow-up periods. Intervals typically averaged every 3 or 6 months for 1 year. The authors for each study did not provide rationale as to why quarterly or bi-annual intervals were chosen, however, the assumption may be that these types of intervals allow for time to pass to determine if the intervention maintains its therapeutic effect on participants and families and patients had time to practice skills. In addition, there appears to be no clear recommendations or evidence in research to suggest length of follow-up periods for psychiatric studies. The immediate post-intervention follow-up demonstrated low rates of attrition but provided no evidence as to the long-term effects of each intervention.

Analysis of follow-up periods for each study provided no evidentiary value for clear recommendations for family practice settings. Although, follow-up periods ranged from 3 or 6 months to 1 year, these were useful for establishing therapeutic effects on participants related to each studies research question but not necessarily to provide recommendations for follow up periods in clinical settings. Follow-up periods likely would be dependent on a case-by-case basis as determined by the HCP, patient presentation or prescription renewal periods, but that recommendation is beyond the research findings established within this review. As to what conclusions can be drawn from follow-up periods for the implementation of family-focused approaches remains unclear, however, these studies still provided evidence of the usefulness of family-focused approaches in each outcome measured. The outcomes that were reported to be significant will be discussed in the next section.

Outcomes

Determining the types of outcomes that were significant from the different family-focused approaches was a key component of the research question to understand how these types of approaches affect overall patient outcomes and can be implemented in the family practice setting. The focus remains on understanding how a family-focused approaches affect patient outcomes, however, if the study measured caregiver outcomes, this was also included to validate the effectiveness of the intervention on the whole family, and not just the patient. In Table 9 outcomes are categorized by patient and caregiver and if the outcome was found to be significant, it was also marked within the table. For the purposes of this section, only positive and significant outcomes will be discussed and related back to their potential usefulness in family practice. Positive or significant outcomes are those that demonstrated a power <0.05 (Borden & Barrington-Abbott, 2018). The implementation of such approaches will be further examined in the discussion chapter. Interpretation of these findings were further sorted into the different types of family-focused approaches used in each article to determine the specific positive outcomes identified with each intervention.

Table 9 *Integrative Review: Article Outcomes Summary*

	Patient Outcomes								**Caregiver Outcomes**					
Study	**Improved global functioning (GF) or quality of life (QoL)**	**Reduced mania**	**Reduced depression or anxiety**	**Reduced hospitalizations or increased medication adherence**	**Reduced recurrence or relapse**	**Shorter time to recovery or improved rates to recovery**	**Improved illness knowledge**	**Improved patients social functioning**	**Positive family change or social/ professional support**	**Reduced caregiver depression, anxiety, or health behavior**	**Improved QoL or physical or mental health**	**Improved caregiver burden or distress**	**Role limitations due to emotional problems**	**Improved caregiver knowledge**
Chatterton et al. (2017)	X (GF)		X (depression)	X (both)	X/Y									
Dunne et al. (2019)		X/Y	X (depression)			X								
Fiorillo et al. (2015)	X/Y (GF)		X/Y (both)					X	X/Y (support)			X/Y (burden)		
Gex-Fabry et al. (2015)	X/Y (QoL)				X	X	X/Y		X/Y (family change)		X/Y (QoL)			X/Y
Macheiner et al. (2017)					X/Y									
Madigan et al. (2012)	X/Y (both)										X/Y (QoL)	X/Y (both)		X/Y
Oud et al. (2016)	X (QoL)	X	X (depression)	X/Y (hospitalization)	X/Y			X						
Perlick et al. (2018)		X/Y	X/Y (depression)							X/Y (depression/ anxiety)	X/Y (mental health)	X/Y (burden)	X/Y	
Perlick et al. (2010)		X/Y	X/Y (depression)							X/Y (depression/ health behavior)		X/Y (burden)		X/Y
Popovic et al. (2013)		X/Y	X/Y (depression)											

X= Outcome measures within study

Y= The outcome measured was found to be significant (P <0.05)

Family-Focused Therapy (FFT)

Of the articles analyzed for this integrative review, FFT demonstrated the greatest number of significant and positive outcomes. The first article that analyzed FFT was the Perlick et al. (2010) study, which found that there was a significant decrease in patients' depressive symptoms and a smaller but still statistically significant decrease in mania symptoms in the FFT-health psychoeducation intervention (HPI) group compared to the health education (HE) groups pre and post treatment. Caregivers who received the FFT-HPI, were found to have significant reductions in depressive symptoms, caregiver burden and health risk behaviors which was not seen in the HE group (Perlick et al., 2010). Perlick et al. (2010) also found that larger reductions in caregiver depressive symptoms were associated with greater reductions in patients' depressive symptoms. The authors also noted that a decrease in caregiver depressive symptoms was mediated by a decrease in avoidance coping that were attributed to illness management skills developed during the intervention (Perlick et al., 2010).

In a later study conducted by Perlick et al. (2018), the authors found that caregivers in the FFT-HPI group had a 48% reduction in depression in comparison to only 22% of the HE groups, which was sustained at follow up. Caregivers had a 41% improvement in overall psychological health in comparison to only 21% in comparison groups. There was also a notable improvement in role limitations due to emotional involvement by 134% from baseline in comparison to 33% of the HE groups (Perlick et al., 2018). In addition, caregivers also had significant reductions in burden, anxiety, and depression (Perlick et al., 2018). Perlick et al. (2018) found that patients demonstrated a decrease in depressive symptoms 2.5 times in comparison to the HE groups. Furthermore, patients had a reduction in mania symptoms 4 times that of the HE groups (Perlick et al., 2018). Patients' mood symptoms were sustained through follow up post-intervention (Perlick et al., 2018).

The Macheiner et al. (2017) article reviewed five studies that included one randomized control trial and four randomized clinical trials that evaluated FFT. Outcomes analyzed within all FFT articles varied widely, but the goal of the Macheiner et al. (2017) meta-analysis was to determine relapse rates evaluated in each of the individual studies regardless of other outcomes measured. Macheiner et al. (2017) highlighted three of the five studies which found that the FFT were more effective than the treatment as usual (TAU) or the active control group on relapse rates. The other two studies were not statistically significant to demonstrate effectiveness on relapse rates (Macheiner et al., 2017).

There was more limited evidence in the Oud et al. (2016) article which found that there was a small effect noted when comparing FFT to individual psychoeducation on relapse rates but were unable to validate any other significant outcomes. The Popovic et al. (2013) study calculated the polarity index (PI) of multiple psychological interventions for BD and ranks each according to the efficacy profile determined by the PI. The PI is "a novel metric depicting the relative antimanic versus antidepressive preventive efficacy of an intervention in BD maintenance treatment" (Popovic et al., 2013, p.293). The authors found that there was a predominantly antidepressive effect (PI <1.0) in a FFT trial with a PI of 0.42 (Popovic et al., 2013). Patient and caregiver outcomes were more positively affected in FFT was when compared to other family-focused approaches.

Carer-focused interventions

There were three carer-focused interventions included in this integrative review due to the inclusion criteria of patient outcomes needing to be measured. Carer-focused interventions are those that do not include the patient within the session (Chatterton et al., 2017). The Chatterton et al. (2017) carer-focused interventions demonstrated a significant relative risk reduction of 39% in relapse in comparison to TAU group. The Madigan et al. (2015) study found that family members in the MFGP had significant improvement in caregiver burden, distress, and knowledge that was sustained at all periods of follow up and was not evident in the TAU group. Patients whose family members attended the MGFP also had a significant improvement in quality of life that was not seen in the TAU group (Madigan et al., 2015). There was only marginal improvement seen in patients global functioning at the one year follow up and no sustained improvement at year two for those in the MGFP group (Madigan et al., 2015). In the Popovic et al. (2013) study using PI as a measurement to determine efficacy, found that there was a predominately antimanic effect (PI >1.0) in the caregiver group psychoeducation trial with a PI of 1.78. These three studies provide evidence on the benefits of caregiver-focused interventions. The cumulative effect of patient and caregiver outcomes are comparable to other family-focused approaches and may impact on the patient and family outcomes positively.

Family-focused Intervention (FFI)/Psychoeducation Family Intervention (PFI)

FFI represented one article included within this integrative review. FFI is a general term to describe any intervention that includes the family and targets mood or psychiatric disorders (Varghese et al., 2020). There was some evidence suggesting that FFI can improve both patient and family outcomes. In the Fiorillo et all. (2015) patients were found to have a significant improvement in overall global scores, depressive and anxiety scores in the treatment group. The authors noted a significant improvement in family members burden of illness and perceived professional support that were not seen within the control group (Fiorillo et al., 2015). This demonstrated some evidence in the support of FFI for the management of BD. However, this was the only study included within this review that analyzed FFI and therefore there was no other supporting evidence to compare to.

Family psychoeducation (FE)/ Family-focused psychoeducation (FFPE)

Family psychoeducation or family-focused psychoeducation were represented in two articles analyzed within this integrative review. Family psychoeducation is a general term that can include any number of topics that are discussed with the patient or family (Ong & Caron, 2008). Typically, psychoeducation is tailored based on the patient or family needs or based on the outcomes being evaluated within the research study.

In the Gex-Fabry et al. (2015) study, greater than 80% of caregivers were found to acknowledge benefits in illness knowledge to help detect early signs of relapse, increased caregiver involvement, and improved quality of life for themselves as well as the patient. Greater than 60% of patients reported feeling more understood, overall positive family change, and feeling better equipped to manage crises (Gex-Fabry et al., 2015). The positive family changes were significantly associated with improved quality of life scores in the social and physical domains (Gex-Fabry et al., 2015). In the second study, one article, Bordbar et al. (2009), that was reviewed in the Oud et al. (2016) meta-analysis, found a large effect of family psychoeducation on the reduction in hospital admissions, however, there were only nine events in the study, which makes it difficult to draw firm conclusions when there are no other articles to for comparison of findings. The other outcomes analyzed had no effect or low-quality effect on treatment outcomes (Oud et al., 2016).

The Dunne et al. (2019) article did not review family psychoeducation but rather analyzed family contact with patients in a cross-sectional survey. Notably, even recent contact with family without a structured intervention or component of psychoeducation other than TAU, demonstrated an improvement in patient's personal recovery. There was evidence that supported recent contact with family members in the last two weeks helped to improve personal recovery scores whereas those individuals who experienced mania symptoms within the last month, had less contact with family (Dunne et al., 2019). Intimate relationships had no impact on recovery which suggests that quality of the relationship may be more important than the presence of a relationship (Dunne et al., 2019). This is an interesting finding that demonstrates the complexities and value of family contact and involvement with the patient, regardless of intervention.

Within the Oud et al. (2016) meta-analysis, the Bordbar et al. (2009) article demonstrated positive outcomes with a two-hour family-focused psychoeducation session that offered information to families on BD symptoms, course of illness, bipolar types, common triggers, treatment length, and medications and their side effects. These positive outcomes were sustained at one year (Bordbar et al., 2009). This study also highlights how even a short duration spent with the family providing psychoeducation can help improve positive outcomes for the patient. In addition, encouraging regular contact with close family members may also help improve personal recovery and reduce the number of manic episodes for patients.

Analyzing the findings in this integrative review within the context of settings, team members/training, instruments, intervention, follow up, and outcomes allowed for an in-depth examination of what could be extracted and feasible to implement in the family practice setting to improve patient outcomes using family-focused approaches. The final chapter will present a discussion of key findings towards recommending family-focused approaches that could be implemented in family practice.

CHAPTER 5

Discussion

This review proved challenging because no one intervention was conducted in the same way or measured similar outcomes; studies used inpatient or specialized outpatient mental health settings; and many studies used a team-based approach with mental health professionals who may not readily be available in many family practice settings in BC, particularly rural settings. Nonetheless, there were key pieces of information that can guide PCPs to utilize family-focused approaches to support patient outcomes in family practice settings. No one family-focused approach is recommended for focusing on specific goals such as reducing relapse, improving rates of recovery, or reducing mania/depressive symptoms. This is because BD is episodic with varying degrees of presentation in patients over time and narrowly treating aspects of the disorder would be futile. Taking a more proactive approach in family practice settings to prevent manic or depressive episodes, relapse, and hospitalization is helpful to patient's family members, and an already strained health care system. First, this chapter provides a table with a summary of recommendations for family practice. Second, each recommendation provided will be reviewed to provide guidance for PCPs on how to translate the specific recommendations into family practice. Finally, this chapter will conclude with a discussion of the limitations within this review.

Recommendations

This integrative review demonstrates some moderate level of evidence to suggest the routine involvement of family in the management of the patient with BD in family practice to support positive outcomes for patients. As to which specific family-focused approach is feasible in the family practice setting could not be determined. There are a range of interventions or components of interventions that could be useful, and PCPs will need to select based on patient need, family engagement, rurality of setting, and availability of team members. Following an extensive search on the available literature, a summary of recommendations was created. Table 10 provides this summary for family practice.

Table 10 *Summary of Recommendations for Family Practice*

Recommendations	**Implementation within Family Practice**
Screen patients for supportive family or friends	-At scheduled appointments, assess patients for friends or family members that may be close with patient and that the patient trusts to be involved in care
Use additional scales for examining severity of illness, effectiveness of interventions or symptom management	- Use of YMRS, HAM-D, MADRS, Mini 5.0, BPRS, and the SADS-C based on patient presentation and appointment time
Team-based models/Use of interdisciplinary teams	-Refer to local team members that are trained in family-focused approaches
Training through FFT manuals	-Read through Miklowitz and Goldstein (1997) treatment manual -Seek out training programs on psychoeducation for BD
Psychoeducation to family members at regular intervals with patient consent	-Psychoeducation that includes illness knowledge, symptoms, treatment knowledge, psychosocial interventions/management, prodromal symptoms/relapse prevention, problem-solving and communication skills, and conflict resolution. -Goal setting with patient and family -Care plans that include recommendations for specific aspects of psychoeducation to be reviewed in regularly scheduled appointments
Referral to family-focused programs if unable to include in own family practice or unwilling to train in family-focused approaches	-Refer to family-focused programs locally if available -Refer to options available through telemedicine if none were available locally -Refer to Family-to-Family Education online course through pathways serious mental illness society (Pathways Serious Mental Illness Society, 2018), Strengthening Families Together (British Columbia Schizophrenia Society, 2021) or similar online options where available based on country/location/language -Refer to psychiatrist when all other options not available

Although the findings within this integrative review support the use of family-focused care, its implementation in the family practice setting remains largely unaddressed. These recommendations will be further discussed in detail.

Screening for Supportive Family or Friends

The first step in providing family-focused care involves screening for social supports and determining what level of involvement the patient is comfortable within the constraints of patient confidentiality. The Dunne et al. (2009) was the only study that acknowledged quality of relationships as important rather than the presence of a close relationship. The closeness of relationships may be vital to determine the effectiveness of family-focused approaches and determination of inclusion of specific individuals within the family practice setting.

During routine visits, PCPs should be asking patients if there are any family members or friends who they feel are strong supports or advocates in their daily lives and whether they feel they would benefit from having these individuals involved. This can be difficult with mental health patients where family dynamics can impede this process. Since loss of interpersonal ties can be one of the most devastating aspects of mental illness, reminding the patient that the lack of strong social support networks can hinder personal recovery could prove helpful during the screening process (Pernice-Duca, 2010). Patient consent and confidentiality must be maintained when incorporating family members into medical appointments.

Scales for Routine Screening

Currently the most used measures in the family practice setting include the Mood Disorder Questionnaire (MDQ), the bipolar spectrum diagnostic scale (BSDS), and the Hypomania Checklist (HCL-32) (Smith et al., 2010; Kilbourne et al., 2013). Use of additional scales in the family practice setting is under the discretion of each individual practitioner for additional screening purposes (Zimmerman, 2014). This review did not determine that one instrument or scale should be used in the family practice settings but identifies additional scales that may be helpful based on an individual patient's presentation that are not routinely used in this setting type. Such rating scales should not be used solely for diagnosis but should be used in addition to other psychiatric classification requirements and referral to a psychiatrist (Zimmerman, 2014). In addition, it is important to note, that screening of caregiver's mental health should be considered during routine visits but was not the focus of this review.

There has been the development of a newer and more promising scale, called the Scale for the Assessment of Episodes in Bipolar Disorder (SAEBD) that provides comprehensive analysis of symptomology across mixed episodes of BD that would minimize the use of multiple instruments or scales (Montes et al., 2021). However, this is beyond the scope of this review as it was not part of the analysis within any of the studies but was discovered when researching other scales for BD. Additional instruments identified in this integrative review that could be useful in family practice for examining severity of illness and effectiveness of interventions or symptom management include the YMRS, HAM-D, MADRS, Mini Plus 5.0, BPRS, and the SADS-C. These instruments seem reasonable and time-efficient for PCPs to conduct during routine patient visits but should be chosen and used in practice under the discretion of the PCP based on the individual patients needs and/or presentation, as well as allotted appointment times. The use of these scales when time is an issue may be more feasible in settings that use team-based models or interdisciplinary teams.

Team-based Models/Interdisciplinary Teams

Most importantly, what can be understood from this integrative review, is the use of team-based models to provide family-focused care in a family practice setting. Integrated models or team-based approaches in primary care that utilize other members of the interdisciplinary team such as registered psychiatric nurses, registered nurses, or social workers may be more practical in family practice settings (Kilbourne et al., 2012). Many urban centers where NPs work are team-based models within British Columbia, that already include these types of providers. This makes the transferability of the integrated or team-based models realistic in urban family practice settings to include family-focused approaches, particularly where these types of models are already established. This type of model may be important since GPs are time-constrained during routine appointments where the focus may be on pharmacological management but could outsource additional psychoeducation needs of the patient and family to other providers. Alternatively, many NPs are allotted longer appointment times in comparison to their physician counterparts in BC who use a fee-for-service model, which makes NPs in a more desirable position to incorporate team-based models of care that are inclusive of family-focused approaches. These types of models could be helpful in rural settings where a lack of supports may be available.

Since many of the studies were conducted by trained mental health professionals with varying backgrounds, this supports the concept of PCPs outsourcing psychoeducation needs to the interdisciplinary team when needed. Teams should include at the minimum a RN or RPN who is comfortable in providing mental health education and management of BD in family practice settings, and/or social worker who provides counselling services to patients. How, where, and which team members would be trained in family-focused approaches would have to be determined based on the family practice settings individual needs as well as availability of such training and HCPs.

Another consideration is the use of Collaborative chronic care models (CCMs) which are another interdisciplinary approach that are effective in treating chronic disorders and a wide range of mental illness, including BD (Kilbourne et al., 2013). The CCM is cost-effective and well-studied in the primary care setting. CCMs highlight the importance of utilization of other mental health specialists for non-medical needs to free up time to PCPs for more advanced clinical care needs. CCMs also recognize the importance of training the entire team and the need for comprehensive psychoeducation for successful patient outcomes. Although in the CCM adapted for BD, there is no mention of including family in psychoeducation, the components recommended for psychoeducation align with the findings in this integrative review.

Family-focused Therapy Manuals for Training

The findings highlighted the lack of transparency in most studies reporting the training of clinicians or HCPs which provided limited evidentiary value. Determining how, where, and when training could be provided would be dependent on the service location and availability of trainers and or the individual providers interest in offering family-focused care. This makes it difficult to draw clear recommendations on training programs or any additional training required for different types of interdisciplinary team members. However, the training through use of FFT manuals could be a realistic training method for PCPs and other interdisciplinary team members that focus on mental health, particularly in rural settings where there is limited access to resources or various types of providers. Training through use of FFT manuals is a reasonable recommendation since these manuals are readily available and can be offered to all providers, regardless of education, location or setting type.

PCPs are familiar with using these kinds of resources in family practice. For example, the Cognitive Behavioral Skills (CBIS) manual provides initial training and PCPs use this manual in practice to guide cognitive behavioral skills for clinical use (General Practice Service Committee, 2020). Therefore, use of a FFT manual for training purposes is within the realm and scope of PCPs abilities and could be offered at any time of the year to PCP interested in family-focused care or to other members of the interdisciplinary team. In addition to the use of FFT manuals for training purposes, the routine use of psychoeducation is an important recommendation that will be discussed in the next section.

Routine Family Psychoeducation

The models and programs implemented within the studies provided useful content to apply in the family practice setting. The findings identified common overlapping features used in psychoeducation models and these features align with the NICE (2014) and CANMAT (2018) guidelines to provide treatment recommendations and assist clinicians in developing plans of care for patients with BD. The concept of goal setting and identification of problems is well within the scope of practice of PCPs that includes physicians and NPs (Institute for Patient- and Family-Centered Care, 2016). Care plans could include recommendations for specific aspects of psychoeducation to be reviewed in appointments with patients and family members. Specific components of psychoeducation that PCPs could use are highlighted in Table 10. This seems practical and feasible for PCPs to do in a family practice setting who have patients who demonstrate interest in family-focused approaches.

Family-focused approaches usefulness in family practice pose a significant problem due to the risks associated with breaching patient confidentiality. However, this does not mean that these types of psychoeducation cannot be provided to family members of those who present with symptoms of depression or caregiver burden and distress surrounding their loved one with BD. This type of carer-focused intervention might be less structured and more based on counselling family members surrounding coping skills, communication, illness management, and early detection of relapse, which can be discussed during family member appointments without the patient present (Fields & Bluett, 2020). Whether this is already done consistently by PCPs is uncertain, as there is no research to demonstrate this, although these components are included in the recommendation within current practice guidelines.

While there's no distinct recommendations from the findings, PCPs could select topics of psychoeducation based on patient/family-identified needs and feel prepared to educate family on fundamental concepts of BD such as illness knowledge, medications, and relapse prevention. Regular and recurring appointments may be realistic for most care providers with the goal of delivering specific concepts during each appointment. This recurrent delivery of psychoeducation is echoed in the SIMSEP-BD, which provides structured psychoeducation sessions that could be tailored to each patient or family based on current needs and has demonstrated good success overall (D'Souza et al., 2010). However, no study discussed use of SIMSEP-BD in the family practice setting within this integrative review. Whether these appointments should be joint should be determined by the patient and family. Further research is needed to examine patient and family preferences for appointment duration and content. Where psychoeducation is not possible, referral may be an important option which is discussed in the next section.

Referral to Family-focused Programs

Family-focused approaches were studied across multiple countries within this review, which demonstrates a global and perceived value in family-focused care as a useful adjunctive treatment for BD. Since the setting type or where it is offered appears to be less important, this suggests that it may be realistic to offer family-focused approaches in the family practice setting and the setting type should not influence the ability of PCPs to incorporate family members into appointments of patients with BD once consent has been obtained.

Where there is no ability to offer family-focused approaches within a family practice with or without an interdisciplinary team, referral to local programs that offer any if these types of interventions would be an alternative recommendation. The Pathways Serious Mental Illness Society and British Columbia Schizophrenia Society offer family programs within British Columbia. If there are no local or regional programs, referral to a psychiatrist may be necessary who may be more equipped to offer such approaches. Additionally, the articles within this review only included in-person sessions, did not speak to the implementation of such approaches utilizing telehealth or other similar technologies to provide family-focused care. This would be an important consideration in future research on the topic.

For PCPs that are unable to offer psychoeducation in person, telemedicine remains a good option to outsource family-focused approaches too (Johnson & Mahan, 2020). Research has established that telemedicine "foundationally supports increasing access to services that rural families need to meet their physiological, psychological, and self-fulfillment needs" (Johnson & Mahan, 2020, p.216). Especially in the context of accessibility, telemedicine remains a good alternative in communities that may not offer mental health interventions or have appropriately trained health care providers (Johnson & Mahan, 2020) to deliver family-focused approaches to improve patient outcomes. Additionally, when a diagnosis has already been confirmed and none of the other options are possible, referral back to a psychiatrist may be necessary where these types of approaches could be supported. The next section will address the limitations identified within this integrative review in hopes of providing transparency in the recommendations to guide PCPs who demonstrate interest in implementing family-focused adjuncts into their practice.

Practical Application of the Recommendations in Family Practice

Key applications that PCPs can use in their practice arising from this integrative review are that the inclusion of family-focused approaches does not have to be a daunting process and can start with simple changes in their routine practice. PCPs should keep early intervention in mind by including a more proactive approach to BD. This could include keeping care plans regularly updated with consent to include family members or friends, keeping track of collateral information that family/friends provide during appointments about the patient's symptoms, and keeping a patient's wishes on file in case of relapse. Psychoeducation can be provided at each appointment that addresses both the family and the patient's goals of care. Providing care for patients with BD can be complex but ensuring that patients are seen regularly for in-person appointments during prescription refills or management for other health comorbidities is a realistic way that PCPs can use to provide routine psychoeducation or screen for symptoms. Patients should be encouraged to bring their named support person in their care plan to regular appointments so that psychoeducation can be provided to both the patient and family.

In family practice, PCPs are less likely to pick up on subtle symptoms of mania in comparison to depression. For this reason, it would be helpful for PCPs to consider scales that are sensitive to mania-type symptoms. Of the validated instruments noted within this integrative review, the YMRS and SADS-C were the most sensitive to detecting mania symptoms, while maintaining their practical use for family practice by requiring only 15-30 minutes to administer. Working with a team in a family practice setting can support timely, relevant administration of these tools to inform care planning or intervention.

Family practice settings may vary significantly from urban to rural settings, but regardless of the model of care, PCPs should know each interdisciplinary team member's strengths and training so that the team can determine how to best support the family and the patient with BD. This may include knowing who can provide counselling, psychoeducation or who is most familiar with the local resources available. Distributing the workload by emphasizing each care providers strengths will make the application of family-focused approaches more realistic in family practice settings.

Limitations within the Research

During analysis of novel concepts within family practice, examining the limitations is critical in the integrative review process to determine whether clear conclusions can be drawn from each study or to determine whether more research is needed in a specific area or whether studies need to be replicated to influence an evidence-based practice change (Gray et al., 2017). There were several limitations noted within the articles included in this integrative review. Each article was analyzed for limitations that could impact the usefulness of the study or generalization of results to the family practice setting. Significant limitations included small sample sizes, missing information, as well as failure to provide an appropriate active control. However, the most significant limitation noted was the lack of studies within family practice settings, reflecting how research is not keeping abreast of current realities in providing mental health care in Canada.

Several studies within this integrative review used TAU as a control, which included Madigan et al. (2012), Fiorillo et al. (2015), D'Souza et al. (2010) (within the Oud et al., 2016 review), and the studies within the Chatterton et al. (2017) review (not including Miklowitz et al. 2000 & 2003). TAU is used a common control used within experimental studies in psychology, however, TAU is not considered to be an active control and is known to potentially inflate the effect sizes (Chatterton et al., 2017). TAU takes on different meanings across countries, cultures, or health care systems, as evidence-informed practices and guideline-based care for what constitutes ‘usual care’ varies widely, further limiting the generalization of results. One study did not identify a control group (Gex-Fabry et al. 2015), making it difficult to determine a causal relationship of outcomes from the specific intervention.

Smaller sample sizes have limited statistical power (Gex-Fabry et al., 2015), which can also affect the generalizability of results or the true impact of an intervention. Larger sample sizes are also needed for smaller effect size (Gray et al., 2017). However, each study within this integrative review met the minimum criteria of an acceptable power analysis of <0.05, which helps reinforce that the sample size is adequate and that the results are not due to the absence or difference in relationship (Gray et al., 2017). On the contrary, larger sample sizes are more costly and require a more stringent significance level (Gray et al., 2017). Large sampling is necessary when there may be many uncontrolled variables (Bordens & Barrington-Abbott, 2018), which is certainly the case in treating people with complex disorders such as BD. Analysis of each article within this integrative review attempted to control variables such as medication type and compliance, psychiatric management throughout study, confirmation of diagnosis of BD type I or II based on current DSM-5 manual criteria at the time of the study, and absence of manic or depressive episodes for a specified period.

Other limitations include missing information or inability to provide appropriate program evaluation and validation. Missing information within each study included the presence of any comorbidities of concurrent mental health disorders that could also potentially influence the impact of family-focused approaches on measured outcomes. In addition, medication management is complex and varied for each patient, who often require combinations of mood stabilizers, antidepressants, and antipsychotics (Rea et al., 2003). Many studies enlisted multiple objectives or outcome measures to be evaluated over the course of the study. However, there appears to be no singled validated instrument that can assess the different facets of each objective, which limits studies to focus on simple clinical indicators, non-specific outcomes or self-developed questionnaires that are deemed beneficial in the management of BD (Gex-Fabry et al., 2015).

One variable of particular interest is the closeness of relationships between patient and caregiver. This variable was only evaluated in one study prior to implementation of study interventions and could impact the usefulness of the family-focused approaches, regardless if the family member was considered the primary caregiver of the patient. The Dunne et al. (2019) study determined that there was influence of specific types of relationships on mood symptoms and personal recovery but did not determine the quality of relationships prior to conducting the study.

All studies included within this integrative review were conducted in specialized outpatient mental health settings except for one study within the Chatterton et al. (2017) meta-analysis that was conducted in an inpatient psychiatric unit. Attempts were made to seek out studies that analyze family-focused approaches within the family practice setting but proved to be unsuccessful. During analysis of the findings, setting type appeared to be less important as no single study provided detailed descriptions of the settings, which made it indeterminable how to differentiate these settings from family practice. Interestingly, all studies were conducted in different countries where there is an expected difference in specialized outpatient mental health settings. Across all studies, various professionals were trained to utilize family-focused approaches which is encouraging that PCPs and interdisciplinary teams could also be trained to incorporate such approaches into family practice settings.

Conclusion

BD is a lifelong condition with many negative psychosocial consequences that can impact the individual and family when not managed or treated appropriately. Since BD is commonly managed in the family practice setting, PCPs are in an opportune position to offer family-focused approaches to improve outcomes and prevent significant psychosocial impacts on patients. Throughout this literature review, a thorough analysis of the findings demonstrated improvement in multiple patient outcomes with various family-focused approaches in outpatient mental health settings. Although there was limited research of family-focused approaches in family practice, the benefits seen in outpatient mental health settings globally demonstrates promising results to enable PCPs to begin to incorporate these types of approaches into the clinical setting until more research is developed. Multiple recommendations were developed to assist PCPs to begin incorporating family-focused approaches into family practice to not only benefit patients but family members as well. Family members appear to be an underutilized resource that can assist PCPs with more accurate assessment of patients, improved illness knowledge and recognition of early relapse, and therefore more timely and cost-effective interventions (Kilbourne et al., 2013). With the goal of improving the management of patients with BD, future changes and ongoing research can help PCPs to improve outcomes of these patients long-term by using valuable interventions such as family-focused approaches.

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APPENDIX A

Literature Review Matrix:

Authors, Title, Journal	**Year**	**Purpose**	**Method/Design**	**Results/Outcomes**	**Recommendations**
Chatterton, M. L., Stockings, E., Berk, M., Barendregt, J. J., Carter, R., & Mihalopoulos, C. Psychosocial therapies for the adjunctive treatment of bipolar disorder in adults: network meta-analysis. *The British Journal of Psychiatry: The Journal of Mental Science*	2017	-Evaluate the efficacy of psychosocial interventions in adults with BD -Studies address relapse rates, global functioning, medication adherence, and depressive and manic symptoms -Interventions included FFT, carer-focused interventions, CBT, psychoeducation, combined CBT and psychoeducation, and Psychoeducation and Personalized Real-time Intervention for Stabilizing Mood (PRISM).	Systematic Review Network meta-analysis (NMA) *Criteria/Recruitment:* 45 publications (41 unique trials) Total of 3119 individuals -18 years and older, Psychosocial intervention against any comparator for the treatment of bipolar disorder, taking regular mood-stabilizing medication, intention of improving symptom outcomes *Methods:* Systematic review which identified studies NMA to pool data on relapse (mania or	-Carer-focused interventions significantly reduced relapse risk of mood symptoms -Individual and group Psychoeducation, FFT, and CBT demonstrated trends toward improvement in the risk ratio of relapse, but the results were determined non-significant -No psychosocial intervention showed significance in affecting depression symptom scores	-New or improved methods are needed to address depressive symptoms

			depression), medication adherence, as well as symptom scales for mania, depression, and global assessment of functioning (GAF) *Follow-up:* Variable		
Dunne, L., Perich, T., & Meade, T. The relationship between social support and personal recovery in bipolar disorder. *Psychiatric Rehabilitation Journal*	2019	-Determine if there was a connection between mood symptoms and personal recovery as it relates to social support and recent contact with family members, friends, or partners.	Cross-sectional survey *Criteria/Recruitment:* -312 participants from social media -Self-reported adults diagnosed with BD *Methods:* Bipolar Recovery Questionnaire (BRQ), One-way analysis of variance (ANOVA), Chi square where a Bonferroni adjustment for 3 comparisons was made *Follow-up:* None	-Contact with close family or friends within the last 2 weeks can improve overall recovery and mood and reduced contact with family can increase underlying symptoms of mania	-Future research to determine if mood symptoms of mania influence if individuals accessing social support networks.

Fiorillo, A., Del Vecchio, V., Luciano, M., Sampogna, G., De Rosa, C., Malangone, C., Volpe, U., Bardicchia, F., Ciampini, G., Crocamo, C., Iapichino, S., Lampis, D., Moroni, A., Orlandi, E., Piselli, M., Pompili, E., Veltro, F., Carrà, G., & Maj, M. Efficacy of psychoeducational family intervention for bipolar I disorder: A controlled, multicentric, real-world study. *Journal of Affective Disorders*,	2015	-Analyze the efficacy Falloon model of psychoeducational family intervention (PFI) in BD to measure outcomes in patients social functioning and reduction of family burden	Real-world, randomized controlled outpatient trial *Criteria/Recruitment:* -70 experimental group; 67 control group from 11 randomly recruited mental health facilities in Italy -18 years and older, Diagnosed with BD I, being treated at one of the facilities within last 6 months, has had one mood episode within last 3 years, living with an adult relative with no physical disability or mental health disorder *Methods:* Multiple assessment instruments were used to measure outcomes in patients and family members and pool relevant data *Follow-up:* Post-intervention	-PFI significantly improve patients social functioning and family members subjective and objective burden. -Age and illness duration do not influence treatment response, but number of episodes and stage of illness may influence response to treatment or recurrence	-Future steps in research with respect to this study will include measuring the efficacy of the intervention over time, feasibility in implementation in routine care, and efficacy on caregivers coping with illness

Gex-Fabry, M., Cuénoud, S., Stauffer-Corminboeuf, M.-J., Aillon, N., Perroud, N., & Aubry, J.-M. Group Psychoeducation for Relatives of Persons with Bipolar Disorder: Perceived Benefits for Participants and Patients. *The Journal of Nervous and Mental Disease*	2015	- Explore perception of caregiver psychoeducation for patients and their family members with BD while determining if there was an association with better quality of life in patients and family members. -Consisted of 14, 2-hour weekly sessions for caregivers, followed by 2 sessions 3 months later	Cross-sectional study *Criteria/Recruitment:* -20 patients and 26 relatives -Adult patients and adult relatives, Attended or were still attending an outpatient program for BD *Methods:* -Mann-Whitney's U-test to compare BD I and II patients, -Spearman's rank correlation coefficients to test patient and relatives' associations of scores. *Follow-up:* Median 4 years after participation	-Greater than 80% of family members found benefits from group psychoeducation that included increased knowledge early detection, signs of relapse, increased involvement, and improved quality of life -Patients found benefit from crisis-management, sense-of understanding by family members, and >60% of perceived positive changes in the family. -An association identified with perceived positive family change and higher quality of life.	Controlled studies that focus on outcomes measures of psychoeducation on the influence of the family relationships in BD are needed to strengthen the effectiveness of this type of intervention
Macheiner, T., Skavantzos, A., Pilz, R., & Reininghaus, E. Z.	2017	-Review literature on the efficacy of group psychosocial interventions in BD and	Meta-analysis *Criteria/Recruitment:* -23 articles	- 75% of treated groups (psychosocial therapy and	-Outcomes of PE and CBT appear to be well established

A meta-analysis of adjuvant group-interventions in psychiatric care for patients with bipolar disorders. *Journal of Affective Disorders*,		their effect on relapse rates of individuals with BD -The types of psychosocial interventions included FFT, CBT, IPSRT, and PE.	-6 FFT articles -18 years and old, confirmed diagnosis of BD -Studies published between 2003 and 2015 on different types of adjuvant psychosocial group interventions on efficacy on BD *Methods:* -Evaluated for psychosocial interventions efficacy related to relapse ratio by meta-analysis. *Follow-up:* Variable	pharmacotherapy) had lower risk of relapse in comparison to pharmacotherapy alone - Benefit in preventing relapse rates in BD by utilizing well established and efficacious psychosocial interventions in addition to pharmacotherapy	-More research is needed on other psychosocial interventions such as FFT -Future studies need to demonstrate more transparency by reporting all outcomes and utilizing a standardized outcome measurement
Madigan, K., Egan, P., Brennan, D., Hill, S., Maguire, B., Horgan, F., Flood, C., Kinsella, A., & O'Callaghan, E. A randomised controlled trial of carer-focussed multi-family group psychoeducation in bipolar disorder	2012	-To determine if carer-focused psychoeducation programs within the community reduce caregiver burden, distress, and increase caregiver knowledge, as well as improve the level of functioning and overall quality of life in patients with BD	RCT *Criteria/Recruitment:* -47 carers of 34 patients -Advertising campaign through mental health services and primary care >18 years old with BD	-Significant improvement in caregiver knowledge and reduced burden at 1 and 2-year follow up (MFGP and SFGP) that was not seen in TAU group -Improvement in caregiver distress at 1 and 2-year follow	-Heightened burden in early stages of BD, therefore programs delivered earlier may improve illness trajectory -Engaging families early in relative's illness may improve uptake of

European Psychiatry: The Journal of the Association of European		-Caregivers were randomized to one of three groups; Multifamily Group Psychoeducation (MFGP), Solution Focussed Group Therapy (SFGP) or Treatment as Usual (TAU)	*Methods:* -Baseline variables were analysed using a Oneway Analysis of Variance. -An Unbalanced Repeated Measures Analysis of Variance was used to evaluate the interventions across the time periods *Follow-up:* Patients and caregivers were re-evaluated at 1 and 2 years.	up (MFGP and SFGP) that was not evident in TAU group -Improvement in quality of life in patients with BD whose caregiver attended MFGP or SFGP vs. no change in the TAU group -Marginal improvement global functioning of patients at 1 year follow-up, and no sustained improvement at 2-year follow up in the MGFP group vs. no improvement in TAU or SFGP group	participation in such programs
Oud, M., Mayo-Wilson, E., Braidwood, R., Schulte, P., Jones, S. H., Morris, R., Kupka, R., Cuijpers, P., & Kendall, T. Psychological interventions for adults	2016	-Psychological interventions for adults with bipolar disorder -Studies selected needed to be compared with control groups (TAU, waiting list, attention control or an active intervention)	Systematic review and meta-analysis *Criteria/Recruitment:* -55 RCTs -Adults with BD -Psychological intervention compared with control group	-Low quality evidence for FFT -Small effect when comparing FFT to individual psychoeducation on relapse rates	-Future studies on interventions that may be more effective at each phase of the disorder. -Longer durations between follow up for FFT to establish

with bipolar disorder: Systematic review and meta-analysis. *The British Journal of Psychiatry*		-Studies analyzed focused on depression, mania, response, relapse, hospital admission, quality of life and psychosocial functioning.	- Trials with concurrent mental disorders in addition to BD, disaggregated data was requested, and only those that could be included *Methods:* Systematic review of RCTs, meta-analyses with RevMan and confidence assessed using the GRADE method. *Follow-up:* Variable		a clearer evidence on the potential effects of this type of intervention.
Perlick, D. A., Jackson, C., Grier, S., Huntington, B., Aronson, A., Luo, X., & Miklowitz, D. J. Randomized trial comparing caregiver-only family-focused treatment to standard health education on the 6-month outcome of bipolar disorder *Bipolar Disorders*	2018	-Evaluate effects of a 12–15-week caregiver-only psychoeducation on depression and physical health of caregivers and the effects on patient's mood symptoms before treatment, immediately following, and 6 months post treatment.	RCT Criteria/Recruitment -46 caregivers of patients with BD -Recruited from 3 New York mental health facilities ->18 years old, BD I or II, demonstrated problems with mental health or behavior -The caregiver must be a close family member, the primary	-Caregiver's depression decreased by 48% at 6 months follow up in comparison to control group at 22% -Caregiver psychological health increased by 41% immediately post treatment compared to control group at 21%	-Longer term follow up to evaluate sustained effects -Assess treatment feasibility and satisfaction -Evaluate patients for comorbidities - Define the caregiver perspective in BD -Use clinical measures of depression and

			support or contact of the patient, and involved in some aspect of treatment previously *Methods:* -Randomized to 12-15 weeks of a caregiver-only adaptation of family-focused treatment (FFT), (instructed on self-care strategies and assistance in managing the illness) or to 8-12 sessions of standard health education *Follow-up:* Immediately following and 6-month post treatment	-Role limitations due to emotional problems improved by 134% at 6-months compared to 33% - Patients with the FFT group demonstrated a significant decrease in depressive symptoms in comparison to the control group (group-by-time interaction, z = −2.08, P = .04)	more sensitive measures of physical health
Perlick, D. A., Miklowitz, D. J., Lopez, N., Chou, J., Kalvin, C., Adzhiashvili, V., & Aronson, A. Family-focused treatment for caregivers	2010	-Evaluate the efficacy of Family-focused therapy health promoting intervention (FFT-HPI) versus a control group about education on BD on the effects on caregivers	Pilot Randomized Clinical Trial *Criteria/Recruitment:* -46 caregivers -Recruited from 4 mental health facilities in New York through fliers, referral	-Significant decreases in caregiver depressive symptoms and health risk behavior in FFT-HPI group -Reductions in depressive symptoms among	-Studies with larger samples for treatment moderators -Mediators of treatment effect by analyzing measures of the emotional relationship

of patients with bipolar disorder *Bipolar Disorders*		-Outcomes measured included depression and health behaviors of caregivers and depression and mania in patients with BD.	from support group leaders, or self-referral from group presentations *Methods:* -Randomized to receive 12– 15 sessions of FFT-HPI or 8–12 sessions of HE -Designed to provide the caregiver with skills for managing the relative's illness, attaining self-care goals, and reducing strain, depression, and health risk behavior -HE intervention was delivered through videotapes *Follow-up:* - Pre- and post-treatment follow up on levels of patient depression and mania and caregivers on levels of burden, health behavior, and coping	patients in the FFT-HPI group -Reduction in depressive symptoms in patients was partly mediated by reductions depression in caregivers -Reduction in depression in caregiver's was partly mediated by reductions in coping avoidance in caregivers	between patient and caregiver and medication adherence

Popovic, D., Reinares, M., Scott, J., Nivoli, A., Murru, A., Pacchiarotti, I., Vieta, E., & Colom, F. Polarity index of psychological interventions in maintenance treatment of bipolar disorder *Psychotherapy and Psychosomatics*	2013	-Calculate the polarity index (PI) -Rank the available psychological interventions according to their efficacy profile by means of the PI	Systematic review *Criteria/Recruitment:* -RCTs comparing the efficacy of a psychological intervention with a comparator group in BD maintenance treatment -Patients >18 years. -Exclusion criteria= small sample size -10 trials met criteria *Methods:* -PI was retrieved by calculating the ratio of NNT for prevention of depression and NNT for prevention of mania, as emerging from the results of RCTs -PI value of 1 indicates a similar efficacy in preventing mania and depression -PI >1.0 indicates higher antimanic prophylactic properties	- CBT, FFT and psychoeducation had PI <1.0 = more anti-depressive than antimanic prophylactic effects, while caregiver group psychoeducation had PI >1.0, indicating a prevalently antimanic action	-PI may help in absence of large number of trials or longitudinal studies to understand efficacy of adjunct psychosocial interventions and management of BD -PI may help design interventions with specific profiles

			- PI <1.0 indicates great anti-depression action of given treatment *Follow-up:* None		