

Close Others as Context: Understanding Treatment Attitudes in Anxiety and Related Disorders

by

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## Examining Committee Membership

The following served on the Examining Committee for this thesis. The decision of the Examining Committee is by majority vote.

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### **Author's Declaration**

This thesis consists of material all of which I authored or co-authored: see Statement of Contributions included in the thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## Statement of Contributions

Olivia Merritt was the sole author for the general introduction and general discussion, which were written under the supervision of Drs. Christine Purdon and Karen Rowa and were not written for publication.

This thesis consists in part of three manuscripts written for publication. Exceptions to sole authorship of material are as follows:

### **Research presented in Study 1:**

This research was conducted at the University of Waterloo by Olivia Merritt under the supervision of Drs. Christine Purdon and Karen Rowa. All researchers contributed to conceptualization, methodology, and reviewing and editing. Olivia Merritt conducted the research investigation, data collection, data curation, analyses, visualization, and writing of initial draft. Dr. Christine Purdon contributed resources and supervision and aided in funding acquisition. Dr. Karen Rowa contributed to supervision. All co-authors contributed intellectual input.

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### **Research presented in Study 2:**

This research was conducted at the University of Waterloo by Olivia Merritt under the supervision of Drs. Christine Purdon and Karen Rowa. All researchers contributed to

conceptualization, methodology, and reviewing and editing. Olivia Merritt conducted the research investigation, data collection, data curation, analyses, visualization, and writing of initial draft. Dr. Christine Purdon contributed resources and supervision and aided in funding acquisition. Dr. Karen Rowa contributed to supervision. All co-authors contributed intellectual input.

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### **Research presented in Study 3:**

This research was conducted at the University of Waterloo by Olivia Merritt under the supervision of Drs. Christine Purdon and Karen Rowa. All researchers contributed to conceptualization, methodology, and reviewing and editing. Olivia Merritt conducted the research investigation, data collection, data curation, analyses, visualization, and writing of initial draft. Dr. Christine Purdon contributed resources and supervision and aided in funding acquisition. Dr. Karen Rowa contributed to supervision. All co-authors contributed intellectual input.

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As lead author of these three studies, I (Olivia Merritt) was responsible for conceptualizing study design, carrying out data collection and analysis, and drafting manuscripts. My co-authors

provided guidance and input during each step of the research and provided feedback on draft manuscripts.

## **Abstract**

Up to one-quarter of the North American population suffers from excessive anxiety and the associated impaired quality of life. While there is evidence that anxiety treatment is effective, it is underutilized, with most sufferers avoiding treatment or dropping out early. The Theory of Reasoned Action (Ajzen & Fishbein, 1980) points to social norms and treatment attitudes as major factors in one's treatment interest and engagement. Of course, these two factors are not completely independent, and this thesis highlights their intersection through investigating how the behaviour of one's social network relates to treatment attitudes. We focus on two types of behaviour that have been documented as important variables in anxiety maintenance and treatment: criticism and accommodation of anxiety symptoms. This series of studies is the first to investigate the relationships between criticism, accommodation, and treatment attitudes of adult anxiety sufferers themselves, as well as treatment attitudes of their close others. In study one, participants with excessive anxiety completed measures of treatment ambivalence, perceived criticism, and accommodation of symptoms. Regression analysis revealed that accommodation and criticism were both significantly positively related to treatment fears, even when therapy history, sample type (clinical/analogue), and demographic factors were controlled for. To explore this relationship in close others, a measure of close others' treatment concerns needed to be developed; this was the focus of study two. Close others' qualitative responses about their treatment concerns were coded to reveal seven major themes, which were then used to develop measure items. These items were administered to a large sample and exploratory factor analysis indicated four internally consistent factors – Adverse Reactions, Personal/Family Consequences, Lack of Commitment, and Ineffectiveness. The new 17-item measure (Treatment Concerns Questionnaire – Close Others, or TCQ-C) showed strong internal reliability, convergent validity,

and discriminant validity. In study three, this measure, as well as measures of self-reported criticism and accommodation, were administered to a sample of close others of those with anxiety. Regression analysis demonstrated a similar finding to study one, in that close others' treatment fears were significantly positively related to their criticism and accommodation, even when controlling for demographic variables. Altogether, this research adds to the literature on the deleterious effects of criticism and accommodation, but in the novel domain of treatment attitudes. That criticism and accommodation are related to increased treatment ambivalence is perhaps unsurprising when these behaviours are conceptualized as representing underlying negative attributions of sufferers. These findings suggest that while close others may be trying to help or support their loved ones through engaging in criticism and/or accommodation, these behaviours may in fact have the opposite effect in that they may discourage wellness efforts. In addition, while families with high amounts of criticism and/or accommodation are ideal candidates for system-focused interventions, these individuals may show the most treatment resistance. Thus, this work has clear clinical implications and suggests the need to take the social system into account when treating anxiety. Methods for addressing treatment concerns, criticism, and accommodation are discussed, as well as limitations of these studies and future directions for research.



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## **Literature Review and General Introduction**

### **Anxiety and its Treatment**

Fear is an emotion that is thought to have evolved to motivate us to get away from danger in our environment, including escaping, fighting back, or freezing in place (“fight, flight, or freeze”). However, when fear persists long beyond the time the danger is removed from the environment, it is called anxiety. For 3.8%-25% of the population, anxiety levels are chronically high, not tied to any real danger in their environment, and/or impairing their ability to participate in the activities of life (Baxter, Scott, Vos, & Whiteford, 2013; Remes, Brayne, Van Der Linde, & Lafortune, 2016; Somers, Goldner, Waraich, & Hsu, 2006); that is, they have an anxiety or anxiety-related disorder.

Genetic and biological factors, as well as early childhood adversity, stressors, and traumas are risk factors for anxiety and related disorders (Bandelow et al., 2008; Jenike, 2004; Hettema, Prescott, Myers, Neale, & Kendler, 2005; Meng & D’Arcy, 2012). The onset of anxiety and related disorders is typically in early adolescence (Bandelow, Michaelis, & Wedekind, 2017; Keller, 2006) or childhood (Heyman, Mataix-Cols, & Fineberg, 2006) and they are often chronic (Bandelow et al., 2017; Abramowitz, Taylor, & McKay, 2009; Stein, 2002). Anxiety and related disorders negatively impact quality of life (Keller, 2006; Olatunji, Cisler, & Tolin, 2007; Renshaw, Steketee, and Chambless, 2005; Stein, 2002) and result in economic costs of billions of dollars annually (Kessler & Greenberg, 2002; Koerner et al., 2004).

Depending on the core fear, excessive anxiety may be classified under one of a number of mental health disorders, including social anxiety disorder (SAD), generalized anxiety disorder (GAD), panic disorder with agoraphobia or without agoraphobia (PD/A, and PD, respectively), obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and illness anxiety

disorder (IAD). In the most recent Diagnostic and Statistical Manual of Mental Disorders (“DSM-5”; American Psychiatric Association, 2013), disorders that are characterized by anxiety may fall under the categories of anxiety disorders, obsessive-compulsive and related disorders, somatic symptom and related disorders, and trauma- and stressor-related disorders. This thesis is interested in the exploration of treatment attitudes in those who experience excessive anxiety and who may or may not have been diagnosed with an anxiety or related disorder.

Fortunately, the burden and impairment of excessive anxiety can be ameliorated through effective treatments such as psychological or pharmacological interventions, or both (Bandelow, Michaelis, & Wedekind, 2017). Individuals with psychological distress tend to prefer psychological treatment over medication (McHugh, Whitton, Peckman, Welge, & Otto, 2013; Prins, Verhaak, Bensing, & van der Meer, 2008) and the “gold standard” psychological therapy for anxiety is cognitive-behavioural therapy (CBT; David, Cristea, & Hofmann, 2018). CBT involves a focus on the thoughts and behaviours that maintain anxiety, as well as efforts to address each of these maintaining factors, such as thought challenging and exposure to feared stimuli (Olatunji, Cisler, & Deacon, 2010). CBT is evidence-based: research shows that it is effective in reducing symptoms of anxiety (Cuijpers, Cristea, Karyotaki, Reijnders, & Huibers, 2016).

However, treatment for anxiety is underutilized. Up to 75% of people with anxiety never seek any kind of treatment (Johnson & Coles, 2012; Ng et al., 2008; Reavley, Cvetkovski, Jorn, & Lubman, 2010; Roness, Mykletun, & Dahl, 2005). Others enter treatment, but only after years – sometimes decades – of anxiety (Altamura, Buoli, Albano, & Dell’Osso, 2010; Christiana et al., 2000; Thompson, Issakidis, & Hunt, 2012; Wang et al., 2005). Those with anxiety disorders delay treatment seeking longer than those with depression and substance use disorders (Johnson

& Coles, 2012). When it comes to psychotherapy, once in treatment, one-sixth to one-fourth of anxiety clients drop out early (Gersh, et al., 2017; Hofmann & Suvak, 2006; Taylor, Abramowitz, & McKay, 2012) and a third of those who complete treatment are non-responders (Taylor, Abramowitz, & McKay, 2012). Leaving anxiety untreated can result in worsening symptoms (Kisely, Scott, Denney, & Simon, 2018) and worse treatment outcomes once help is sought (Dell’Osso, Buouili, Hollander, & Altamura, 2010; Altamura et al., 2014). Thus, reasons for delays or avoidance of seeking treatment, early drop out, and non-response are all important topics of study, but relatively less attention has been paid to reasons why individuals hesitate or do not seek treatment at all.

There are many practical reasons why people do not seek treatment. In their review of the literature on barriers to treatment seeking in college populations with untreated mental health challenges, Eisenberg, Hunt, and Speer (2012) write that many people do not believe that their problem is urgent, abnormal, or severe enough to warrant therapy. Similarly, young people especially may have limited knowledge about mental health and difficulty identifying the symptoms of illness (Gulliver, Griffiths, Christensen, 2010); however, this review did not focus specifically on those with an existing mental health challenge. People of any age who are aware of their mental health challenges may seek help in friends and family, religious advisors, alternative healers, or social services rather than mental health professionals (Pescosolido & Boyer, 2010). Among people who do desire therapy, lacking time, money, insurance, or access to treatment are practical impediments to getting the needed care (Gulliver, Griffiths, Christensen, 2010), especially for those in rural communities (Fox, Blank, Rovnyak, & Barnett, 2001). Clinicians have little control over clients’ socio-economic or insurance status; however,

psychological barriers (including attitudes about treatment) can also be major obstacles to treatment-seeking.

### **Treatment Attitudes and Concerns**

The Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980) states that engaging in health-promotion behaviour (e.g., engaging in physical activity, managing stress levels) requires intention, and intentions are predicted by two factors: (1) social norms and (2) one's attitudes towards the behaviour. The former will be discussed shortly. Regarding psychological interventions for anxiety, one's attitudes may include beliefs about therapy, therapists, therapy effectiveness, and personal efficacy regarding therapy. Treatment attitudes are relevant at every stage of therapy, from the perception of need to seeking help to engaging in treatment. A meta-analysis of 18 studies on predictors of help-seeking intentions in college students found that attitudes towards seeking professional psychological help was one of the strongest predictors of the intention to seek help (Li, Dorstyn, & Denson, 2014). Negative attitudes toward treatment (e.g., seeing treatment as a sign of weakness or believing it would not help) were among the most important barriers to care for young adults with clinical levels of psychopathology (Vanheusden et al., 2008). Once in treatment, treatment beliefs are related to treatment outcomes: a study of those entering CBT for social anxiety found that treatment expectations significantly predicted improvement among those who completed treatment, after controlling for symptom severity (Safren, Heimberg, Juster, 1997). Treatment attitudes are also related to treatment drop-out: in a study of those undertaking CBT, medication, or combined treatment for panic disorder, treatment attitudes and income were the two best predictors of treatment attrition out of 52 studied variables (Grilo et al., 1998). Similarly, in a sample of those undergoing CBT for social anxiety, treatment attitude was the only variable that differentiated those who dropped out from those



who completed treatment, whereas comorbidities, symptom severity, and demographic variables did not (Hofmann & Suvak, 2006). Thus, we know that treatment attitudes are an important component of both seeking treatment and success in treatment.

Kushner and Sher (1989) suggested that treatment attitudes are made up of “a conflict between approach tendencies (e.g., mental distress, pressure from others) and avoidance tendencies (e.g., treatment fears, cost)” (p. 251), such that the “varying strengths of the competing motivational and inhibitory factors would determine the net result” (p. 252). While one’s positive beliefs about treatment are important, this thesis largely focuses on one’s avoidance tendencies, as indicated by treatment fears or concerns. Kushner and Sher define treatment fearfulness as “a subjective state of apprehension that arises from the aversive expectations about the seeking and consumption of mental health services” (Kushner & Sher, 1991, p. 197). Treatment fears are indicated as a reason for avoiding seeking professional help for psychological difficulties (Amato & Bradshaw, 1985; Gulliver, Griffiths, Christensen, 2010), and people who use mental health services report fewer fears than those who do not (Pipes, Schwartz, & Crouch, 1985; Kushner & Sher, 1989).

What kinds of fears do people hold about therapy? An early measure of treatment fearfulness, the “Thoughts about Psychotherapy Survey” (Kushner and Sher, 1989) featured three subscales: worries about therapist competence and responsiveness (e.g., “whether the therapist will be honest with me”; “whether the therapist will understand my problem”), worries about the judgements of others (e.g., “whether my friends will think I’m abnormal for coming”; “whether the therapist will think I’m more disturbed than I am”), and worries about being pushed to think, do, or say things against one’s will (e.g., “whether I will be pressured into talking about things I don’t want to”; “whether I will end up changing the way I think or feel about things and

the world in general”). Additional items were later added to assess fears related to stigma (e.g., “whether being in therapy will affect my relationship with those closest to me”; “whether seeking treatment would affect my job or job prospects if an employer found out about it”; Deane & Chamberlain, 1994). In their review of the literature on treatment fears, Kushner and Sher (1991) detail six sources of fears about therapy: fear of talking to a stranger about personal matters, fear of change/losing current coping strategies, fears involving treatment stereotypes (e.g., therapists as incompetent; therapy resulting in hospitalization; therapy involving discussion of sexuality), fears resulting from negative past treatment experiences, fear of stigma, and fear of addressing that which one has been avoiding (e.g., those with social anxiety disorder fearing social interaction with a therapist; those with anxiety fearing exposure-based treatments; those with trauma fearing discussion of the trauma). These papers address fears of therapy more broadly, although Kushner and Sher (1991) suggest that treatment fears likely vary depending on demographic factors, type of psychopathology, and intervention modality (Kushner & Sher, 1991).

Given that some of the beliefs detailed in earlier measures of treatment fears might be outdated, and that treatment fears may vary as a function of type of mental health challenge and therapy modality, Purdon, Rowa, and Antony (2005) focused on anxiety and related disorders in their study of treatment fears. They surveyed individuals with OCD, PD, and SAD who were awaiting CBT, and asked them to share their fears and concerns about treatment. Qualitatively, four themes arose: treatment resulting in increased symptoms/anxiety, treatment failing, treatment success having negative consequences (e.g., “my family will be angry I didn’t do this sooner”), and general concerns (e.g., “treatment might make me miss work”). The authors used this qualitative data to develop a quantitative measure of treatment ambivalence in anxiety called

the Treatment Ambivalence Questionnaire (TAQ; Rowa et al., 2014). Factor analysis indicated a three-factor solution, with subscales “personal consequences of treatment” (changes in personality and relationships), “adverse reactions to treatment” (treatment failure, new symptoms, relapse) and “inconvenience of treatment” (stigma, time-consuming). This measure elucidates the treatment fears that are most relevant to those with anxiety and related disorders, especially as they relate to CBT.

Given that treatment fears are related to treatment avoidance, it is important to know what kinds of factors predict people’s attitudes about seeking psychological help. To date, the most extensively studied variables have been demographic. For example, females (Gonzalez, Alegria, Prihoda, 2005; Mackenzie, Gekoski, & Knox, 2006; Nam, Chu, Lee, Lee, Kim, Lee 2010; Noboru & Eells, 2001), older individuals (Gonzalez et al., 2005), and people with higher educational attainment (Tijhuis, Peters, & Foets, 1990) tend to have more positive treatment attitudes, as do those who have a history of use of psychological services (Elhai, Schweinle, & Anderson, 2008; Vogel, Wester, Wei & Boysen, 2005). The role of cultural variables has also been explored, with some studies finding that cultural minorities have more negative treatment attitudes than those that represent a cultural majority (Alvidrez, 1999; Chavira, Stein, Bailey, Stein, 2003; Dadfar & Friedlander, 1982) although findings are mixed (Gonzalez et al., 2005). In addition to demographic variables, symptoms also seem to be related to treatment seeking, with those who are depressed and/or suicidal showing more negative treatment attitudes (Deane, Wilson, Ciarrochi, 2001; Nam, Choi, Lee, Lee, Kim, Lee, 2013; Safren, Heimberg, & Juster, 1997; Vogel & Wester, 2003). However, the influence of the relational context on treatment attitudes has largely gone unexplored. Thus, understanding the relationship between treatment attitudes and the behaviours of close others is one of three goals of this series of studies.

## **Close Others and their Role in Treatment Decisions**

### ***Care Decisions as Inherently Social***

Whereas early models of decision-making adopted rationality as their central principle, Pescosolido (1992) argued that the social context in which decisions are made and carried out is of great importance. She argued that one's social network does not simply represent a cost or benefit to a certain decision, but rather that social structures define the problem to be solved, the potential solutions to the problem, the preferences of the actor, and the actor's evaluation of the decision. Applied to one's mental health "career" ("a sequence of actions related to the attempt to rectify a [mental] health problem"; Pescosolido, 1992, p. 1111), close others (e.g., family, romantic partners, close friends) can, and often are, involved in every step of the process. Our personal narratives are defined and refined through conversations with close others, conversations that may include identifying and labeling one's mental health status, considering options for support, and seeking and participating in care. Close others may gently alert one to their anxiety or start open conversations about mental health. On the other hand, close others may not be receptive to mental health conversations, may convey a sense that mental health challenges are shameful, and/or may urge one handle their problems on their own. For example, Yap and Jorm (2011) found that when close others perceive the sufferer as weak, not sick, they are more likely to talk to the person about getting their act together or suggest the person have a few drinks to forget their troubles. When people are unsure whether they need treatment, they typically turn to family members or friends (Drum, Brownson, Denmark, & Smith, 2009; Eisenberg, Hunt, Speer, & Zivin, 2011). When considering what kinds of treatment would be appropriate, people with mental health difficulties commonly consult family members before health care professionals (Henshaw, Sabourin, Warning, 2013; Maria Bermúdez, Kirkpatrick,

Hecker, & Torres-Robles, 2010). When entering treatment, the most frequent reasons people cite for doing so involve their close others; for example, people may be motivated to seek help because of impairments in personal relationships as a result of mental health difficulties, or because social supports have suggested they do so or supported them in doing so (Gulliver et al., 2010; Orford et al., 2006; Polcin & Beattie, 2006; Tsogia, Copello, & Orford, 2001). Through interviewing those with severe mental illness, Aldersey and Whitley (2015) found that family can be both a facilitator (e.g., source of support or motivation) and/or a barrier (e.g., source of stress or stigma) to recovery for those engaging in long-term mental health treatment. Regardless of the valence of their involvement, friends and relatives “have been documented as critical actors in the social process of seeking care” (Pescosolido, 1992, p. 1111).

### ***Close Others’ Treatment Attitudes***

In addition to direct involvement in treatment decisions, close others’ own treatment attitudes can influence the sufferer’s perception of social norms. Recall that social norms are a critical component of making behavioural change according to the Theory of Reasoned Action: the more a behaviour is seen as important to friends, family, or the community at large, the more likely one is to engage with a behaviour (Ajzen & Fishbein, 1980). When it comes to considering therapy, people are sensitive to these social norms (Eisenberg et al., 2011; Vogel, Wade, Wester, Larson, & Hackler, 2007) and the anticipated reactions and attitudes of close others (Earnshaw, Smith, Copenhaver, 2013; Leaf, Livingston Bruce, & Tischler, 1986). Negative perceptions of mental health treatment in close others (using a measure of perceived stigma by others) can lead to negative perceptions in the sufferer, greater self-reliance, and decreased help-seeking (Jennings et al., 2015). That is, when close others are negative about therapy, this can drive the sufferer to avoid seeking professional help.

Despite their potential impact, explorations of close others' treatment attitudes have been very limited to date. A parallel literature is that of family treatment readiness. Readiness for change is based on the transtheoretical model (Prochaska et al., 1992), which suggests that one's readiness to participate in an intervention varies across several fluid stages. This model has been applied to the readiness of close others to participate in treatment, showing that parents of children with behavioural challenges vary meaningfully in this regard and that readiness is associated with attendance at treatment sessions (Proctor, Brestan-Knight, Fan, & Zlomke, 2018). Much of the family readiness for change research focuses on parents of children with behavioural challenges. However, Sherman and Carothers (2005) describe how these stages may apply to families of adults with other mental health challenges as well. The readiness for change research indicates that there is variability in close others' treatment attitudes, especially with regards to family-inclusive interventions, but does not speak to specific treatment beliefs per se.

A related set of literature explores the acceptability of different treatments for individuals with a variety of mental health concerns. For example, a study of parents' beliefs about treatment for their child with ADHD was conducted in Israel by Berger, Dor, Nevo, and Goldzweig (2008). Eighty percent believed medication to be effective, 56% reported a concern about long-term effects of medication, and 74% stated that medication in conjunction with educational or psychological support would be the most effective treatment. Irani, Dankert, and Siegel (2004) surveyed family members (mostly parents) of those with schizophrenia about treatment acceptability, finding that 93% of family members support the continuous use of medication by the sufferer and 66% support a surgically implantable medication delivery system. Regarding internalizing disorders, a study of mothers' attitudes toward treatment for a hypothetical child with depression found that cognitive therapy was seen as more acceptable than medication

(Tarnowski, Simonian, Bekeny, & Park, 1992). Over the course of treatment for their children with depression, parents' views of treatment credibility improved more for CBT than for nondirective supportive treatment (Brent et al., 1997). Chavira, Stein, Bailey, and Stein (2003) asked parents about their opinions of treatment should they hypothetically have child with social anxiety. Parents favoured counselling interventions over pharmacological interventions. Lastly, and most relevant to the current work, Brown, Deacon, Abramowitz, Dammann, & Whiteside (2007) surveyed parents about their treatment preferences for their children with anxiety and related disorders, finding again that CBT is perceived as more acceptable, believable, and effective than medication. Based on the current literature, it appears that close others (particularly parents) are generally in support of psychological treatment for anxiety.

Importantly, research shows an association between parental beliefs and treatment outcomes for their children. Parents of children with ADHD were more likely to enroll their child in medication and participate in a parent group if they had more positive attitudes toward medication (Corkum, Rimer, & Schachar, 1999). Negative parental beliefs about mental health problems and about therapy were also associated with worst treatment outcomes and early dropout for children with behavioural challenges (Morrissey-Kane & Prinz, 1999). Similarly, parent beliefs about treatment effectiveness at the first session of a behavioural intervention for their children with behavioural challenges were related to treatment adherence as late as eight sessions (Nock, Ferriter, and Holmberg, 2007). Thus, we know that the treatment attitudes of close others can be incredibly impactful. However, the treatment attitudes literature has yet to be extended to the *fears* of close others (broadly defined, to include romantic partners, close friends, and other relatives) of *adults* with anxiety.

There is preliminary evidence that close others may have concerns about therapy. Researchers comment that family members may be concerned about being blamed for the development of the disorder (Renshaw et al., 2005) or otherwise judged by clinicians (Selles et al., 2017; Sherman & Carothers, 2005). Additionally, family members may be concerned about the logistics of therapy and practical barriers to accessing therapy (e.g., time and money; Kazdin, Holland, & Crowley, 1997). Close others may also share concerns that clients themselves hold about therapy (as seen in the development of the Treatment Ambivalence Questionnaire; Rowa et al., 2014), such as worries about treatment failing or resulting in worsened symptoms. Lastly, parents also endorse worries about the stigma of therapy or that therapy may change their child, or themselves, in unwanted ways (Selles et al., 2017). However, to date, the research on treatment concerns in close others is limited in a number of ways. The only validated measure of close others' treatment concerns was designed to measure parents' worries about treatment for their child (Selles et al., 2017), leaving a gap in the literature around treatment concerns of *other types of close others*, and concerns around treatment for *adults with anxiety*. Additionally, no study has systematically gathered the treatment concerns of close others in order to develop a measure of treatment concerns. Surveying close others about their treatment concerns and using this qualitative information to create a quantitative measure is the second goal of the current series of studies.

### ***Close Others' Relational Behaviours***

When considering the social context in which treatment decisions are made, it is not just the social norms that are important. The behaviour of close others also has the power to shape a person's perceptions of themselves, their mental health, and their treatment options. The Risky Families model outlines how family context can influence mental health outcomes (Repetti,



Taylor, & Seeman, 2002). Based on relevant research, the model postulates that cold, unsupportive, or neglectful family environments may lead to biological alterations, maladaptive emotion processing, and poor social skills in individuals, which is thought to lead to risky health behaviours and health problems. Further, the model suggests that one's social context is associated with one's chosen coping strategies. For example, hostile and conflict-ridden family environments, and families that show less cohesion and support than others, are associated with maladaptive coping strategies such as avoidance, distraction, and escaping the situation (Repetti, Taylor, & Seeman, 2002). These authors note that "chronic burdens favour reactive coping skills" (p. 356), such as substance use or other "quick fix" strategies to reduce distress. Thus, someone in a stressful family environment may not have the distress tolerance, self-regulation skills, or resources required to pursue a longer-term mental health strategy like therapy. In a specific example of how a person's social context may influence their treatment-seeking efforts, Vogel and Wei (2005) report that attachment anxiety was related to help-seeking, whereas attachment avoidance was related to treatment reluctance. These relationships are mediated by treatment attitudes, including perceived benefits and risks of treatment (Shafer, Vogel, & Wei, 2006). Thus, social context is a key variable in understanding treatment attitudes.

Regarding anxiety and related disorders, criticism and accommodation are among the most commonly studied family behaviours. Criticism, or hostility, refers to perceptions of close others as disapproving or judgemental, which may be communicated overtly (i.e., verbal statements) or covertly (e.g., facial expressions). While some researchers have separated the constructs of criticism and hostility, there is evidence that they overlap substantially (e.g., van Noppen & Steketee, 2009). Accommodation describes changes that family members make to their own behaviour to alleviate anxiety in the sufferer; examples include modifying routines

(e.g., waiting for an OCD routine to be over before leaving the house), participating in symptoms (e.g., providing reassurance to someone with GAD), or helping a loved one avoid a feared stimuli or situation (e.g., making an appointment for someone with SAD) (Shimshoni, Shrinivasa, Cherian, & Lebowitz, 2019). While both criticism (Chambless, Bryan, Aiken, Steketee, & Hooley, 1999) and accommodation (Storch et al., 2007) may be enacted with helpful intentions, they are associated with increased anxiety symptoms over time (Chambless et al., 2001; Low & Stocker, 2005; Renshaw, Steketee, and Chambless, 2005; Strauss, Hale, & Stobie, 2015; Wu et al., 2016). The inclusion of family in treatment for anxiety is increasingly recommended in order to address accommodation and criticism (e.g., Chambless, 2012; Lebowitz, Omer, Hermes, & Scahill, 2014) and when treatments are able to decrease criticism (Chambless & Steketee, 1999) and accommodation (Kagan, Peterman, Carper, & Kendall, 2016; Piacentini et al., 2011), larger symptom reductions are observed. Criticism and accommodation are important factors to consider when seeking to understand the role of family in anxiety treatment. However, research on the relationship of these behaviours to sufferers' treatment attitudes is nascent.

### ***Criticism and Accommodation as Predictors of Sufferers' Treatment Concerns***

As previously noted, our current understanding of correlates of treatment attitudes has largely been focused on demographic factors such as age, gender, and culture, in addition to broad socially related constructs, such as social support and social stigma. Few studies have explored whether specific relational behaviours, such as accommodation and criticism, are related to a sufferer's treatment attitudes. To date, the only study to explore such a relationship was conducted by Selles, Rowa, McCabe, Purdon, and Storch in 2013. In their sample of 27 youth with treatment-resistant OCD, the authors found that youth-rated treatment ambivalence

was significantly positively related to clinician-rated family accommodation. Despite the limited direct research on the relationship between these variables, there is good reason to suspect that criticism and accommodation may be related to treatment concerns.

Behaviour communicates information. When a loved one is critical, the recipient may internalize negative beliefs about themselves. Research shows an association between belittling and punitive parenting and beliefs about self as failure (Sheffield, Waller, Emanuelli, Murray & Meyer, 2005). Those who are criticised may also learn to be self-critical: for example, a study of young women found that perceived parental criticism was significantly related to participants' own self-criticism (Brewin, Andrews, & Furnham, 1996). Alternatively, or in addition, the recipient may begin to believe that others are scary, dangerous, or cannot be trusted (Sheffield et al., 2005). These basic beliefs about oneself, others, and the world are called "core beliefs" or "internal working models" in that they guide the day-to-day decisions one makes (Bowlby, 1973; Hawke & Provencher, 2011). Treatment decisions are likely no exception. Those who feel criticized by others may believe that they will "fail" in therapy or that others cannot be trusted to help them. Those with critical parents may be less likely to self-disclose (Rosenthal, Efklides, Demetriou, 1987) due to fears about judgement or criticism from others; self-concealment is in turn associated with more negative treatment attitudes (Nam et al., 2013). Thus, while it has not yet been the subject of empirical investigation, greater perceived criticism from loved ones is predicted to be related to increased treatment concerns in those with anxiety.

Accommodation of anxiety symptoms is extremely common (e.g., Lebowitz et al., 2013). Family and friends may accommodate symptoms to provide relief from anxiety (e.g., by providing reassurance; Calvocoressi et al., 1999). At the same time, accommodation precludes sufferers from being exposed to anxiety-provoking situations and allowing them the chance to

learn to cope on their own (Kagan et al., 2017; van Noppen & Steketee, 2009). Just like criticism, accommodation may convey implicit messages to the sufferer about their inability to manage their own anxiety. Parental controlling behaviours (e.g., over-protection) are associated with childhood anxiety, a relationship that is thought to be mediated by the communication of messages about events being outside of one's control (Wood, McLeod, Sigman, Hwang, & Chu, 2003). Research shows that emotional over-involvement, a concept related to accommodation as it includes factors like intrusions and self-sacrifice (Reuman & Abramowitz, 2018; Van Noppen & Steketee, 2009; Van Noppem & Livingston, 2003), may convey to the sufferer that they are incapable (Shadach & Ganor-Miller, 2013). In fact, significant relationships between emotional over-involvement, criticism, and accommodation led Van Noppen & Steketee (2009) to conclude that accommodation may be perceived as intrusive and critical. Given that sense of control and competence are associated with enacting health-promoting behaviours (Amiri, Chaman, & Khosravi, 2019), and accommodation can undermine both, those who are frequently accommodated by close others may believe that their mental health is not within their control and/or that treatment will be too distressing for them to handle. Extent of family accommodation is expected to be positively related to treatment concerns in those with anxiety. This is consistent with the relationship described by Selles and colleagues (2013) in their sample of youth with treatment-refractory OCD; we expect to replicate this finding in a sample of adults with excessive anxiety (broadly defined).

### ***Criticism and Accommodation as Predictors of Close Others' Treatment Concerns***

As previously noted, despite their potential impact, the literature on treatment attitudes of close others is scant. Mirroring the literature on treatment attitudes of sufferers, studies that explore correlates of close others' treatment beliefs have largely focused on demographic and

background variables, rather than psychological or relational variables. Recall that Chavira and colleagues (2003) asked parents to imagine having a child with social anxiety; they found that parents who were White, whose children had attended counseling in the past, and who had a history of emotional problems themselves were more positive about counseling for social anxiety. They did not find a significant effect of severity of child anxiety on treatment attitudes, a finding that was replicated by Brown and colleagues (2007) in their survey of parents of children with anxiety and related disorders. In contrast to Chavira and colleagues, however, Brown and colleagues found that parent ratings of CBT did not vary with child treatment history. Parents whose children had a history of taking medication, were older, and/or showed higher dysfunction due to anxiety, were more favourable towards medication as a treatment for anxiety. This literature focuses on demographic predictors of parents' beliefs. The fourth and final aim of the current series of studies is to explore relational predictors of close others' treatment beliefs.

It is increasingly recommended that close others are included in treatment for anxiety (Chambless, 2012), and family-inclusive treatments are effective, potentially more so than individual treatment (Barrett, Dadds, & Rapee, 1996; Creswell & Cartwright-Hatton, 2007; Emmelkamp & DeLange, 1983; Mehta, 1990; Wood, Piacentini, Southam-Gerow, Chu, & Signman, 2006). While much of the literature focuses on family-inclusive treatments for children, those that focus on adults show similar effect sizes (Thompson-Hollands, Edson, Tompson, & Comer, 2014). Family responses of being either overly accommodating or overly antagonistic are seen as unhelpful (Renshaw, Steketee, & Chambless, 2005); accommodation and criticism are associated with increased symptoms (e.g., van Noppen & Steketee, 2009), and are often the targets of systems-based treatment for anxiety (e.g., Renshaw et al., 2005; Thompson-Hollands et al., 2014). Families in which criticism and accommodation are high may be the most

in-need of family-inclusive interventions. However, little research has examined how family members who exhibit these behaviours feel about treatment for anxiety.

According to the Illness Beliefs Model (Wright & Bell, 2009; Wright, Watson, & Bell, 1996; Marshall, Bell, & Moules, 2010; Clausson & Berg, 2008), family members' beliefs about illness (e.g., cause(s), mastery/control, role of family) can either be “constraining” in that they increase suffering and inhibit solution-finding, or “facilitating” in that they decrease suffering and encourage healing solutions. For example, beliefs about mental illness as shameful can be constraining in that they lead the sufferer and/or the family unit to isolate from social supports that could serve as healing resources. Family beliefs about mental illness as failure can be constraining as it can lead to criticism and hopelessness. In contrast, perceptions of one's family as a resourceful and resilient team can be facilitating in that these beliefs provide hope and a sense of agency. Thus, family members' responses to a loved one and their mental health are a reflection of underlying beliefs about health and illness.

In their review of attributions and expressed emotion in family members, Barrowclough and Hooley (2003) report that beliefs about the *causes* of mental illness and mental illness related behaviours are especially important. After analyzing 13 studies that explore the relationship between illness attributions and responses to mental illness, the authors describe that critical or hostile family members are more likely to believe that sufferers are in control of their behaviour, including their symptoms (i.e., rather than the behaviour being caused by an illness with biological origins) – this implies a sense of blame and responsibility on the sufferer. Additional evidence comes from Van Noppen and Steketee (2009), who used survey data to formulate a model of the relationships between important family variables and OCD symptoms. They found that attributions of controllability were predictive of criticism and hostility in family

members of those with OCD, which was in turn associated with increased OCD symptoms. Thus, there is evidence that criticism is associated with the potentially “constraining” belief that sufferer’s behaviours are within their control. If so, it is likely that close others who are highly critical will perceive treatment to be unnecessary; thus, we predict that increased criticism will be associated with increased treatment concern in close others.

Attributions underlying accommodation behaviours, however, are less straightforward. Barrowclough and Hooley (2003) report that emotional over-involvement may be associated with family members believing in an external locus of control (i.e., that the sufferer’s behaviour is due to an illness, Renshaw, Chambless, & Thorgusen, 2017; or due to parenting, Bolton et al., 2003), resulting in their being overly accommodating and permissive of a sufferer’s behaviour. There is potential, then, that close others who accommodate may not believe that the sufferer has the agency to change. However, in their direct examination of attributions and accommodation in OCD, Van Noppen and Steketee (2009) found a significant positive relationship between controllability attributions and accommodation. This contrasting result suggests that emotional over-involvement may not have complete construct overlap with accommodation (emotional over-involvement, while including components of intrusiveness and self-sacrifice, also includes exaggerated emotional response; Fredman, Chambless, & Steketee, 2004). Alternatively, it may be that some people who accommodate believe that the sufferer has an illness, while others may believe that the mental health challenge is within the sufferer’s control.

Van Noppen and Steketee (2009) posit that perhaps accommodation reflects attempts to influence or control the sufferer’s anxiety. In line with Greenley’s (1986) theorizing that accommodation may be a response to fear of the illness, parents who are more anxious (Flessner et al., 2011; Greenley, 1986; Thompson-Hollands et al., 2014), distressed (O’Connor, Langer,

Comer & Tompson, 2020), or avoidant (Futh et al., 2012; Feinberg, Kerns, Pincus, & Comer, 2018) are more likely to accommodate. Research indicates that distressed mothers may use accommodation to decrease their own discomfort (Kerns, Pincus, McLaughlin, & Comer, 2017), and distressed mothers also encourage avoidant solutions for their children (Shortt, Barrett, Dadds, & Fox, 2001). For example, Flessner and colleagues (2011) found that parent anxiety was especially predictive of accommodation in the form of avoidance of triggers. Close others may engage in accommodation to reduce their loved one's distress (Storch et al., 2007), to reduce their own anxiety (Kerns et al., 2017), or due to beliefs that anxiety is harmful (Feinberg et al., 2018; Settapani & Kendall, 2017), or that the sufferer will not be able to manage the anxiety. Given the beliefs underlying accommodation, close others who accommodate may believe that treatment (especially CBT, which involves systematic exposure to anxiety-inducing situations) will be too distressing for their loved one and may show increased treatment concern. This is consistent with findings from Selles and colleagues (2017), who found that clinician ratings of family accommodation were significantly related parents' treatment worries.

On the other hand, research shows a strong link between accommodation and caregiver burden (Lee et al., 2015) and quality of life (Cherian, Pandian, Math, Kandavel, & Reddy, 2014) and parents of anxious youth describe that accommodating requires significant effort (Futh et al., 2012). Thus, it is also possible that close others who accommodate may feel a strong desire for their loved one to enter treatment. In summary, although criticism is predicted to be positively related to close others' treatment concerns, it is less clear how accommodation will relate to close others' treatment attitudes. On the one hand, close others with increased accommodation behaviours may be more burdened and see more of a need for treatment; thus, accommodation and treatment fears may be inversely related. On the other hand, close others with increased



accommodation may be emotionally avoidant themselves, may believe that their loved ones are incapable of change, or may believe that treatment will be too distressing for the sufferer, resulting in a positive relationship between accommodation and treatment fears. The only study to explore the relationship between accommodation and treatment concerns did so in a parent sample (Selles et al., 2017). This thesis will contribute to the research literature by being the first to empirically explore, and potentially provide clarity about, this relationship in a sample of close others, broadly defined, of adults with anxiety.

### **Research Questions and Aims**

The overarching aim of the current series of studies is to explore the impact of one's social circle on treatment attitudes. More specifically, the research questions, goals, and hypotheses of this thesis are:

**1. How do the behaviours of anxiety sufferers' close others relate to their treatment attitudes?**

- a. Goal 1: Analyze the correlation between accommodation and criticism by close others (as reported by anxiety sufferers) and treatment ambivalence in those with anxiety.
  - i. Hypothesis 1: Accommodation and criticism will be positively related to treatment ambivalence.

**2. Do close others have concerns about their loved one entering treatment?**

- a. Goal 2: Survey close others about their treatment concerns.
  - i. Hypothesis 2: Many close others will report concerns about treatment and concerns will be varied.

**3. Can a reliable and valid measure of close others' treatment concerns be developed?**

- a. Goal 3: Use close others' concerns to create a measure of treatment concerns in close others and examine the reliability and validity of this measure.
  - i. Hypothesis 3: The measure will show a stable factor structure, internal consistency, and convergent and discriminant validity.
- 4. **Are criticism and accommodation associated with treatment concerns in close others?**
  - a. Goal 4: Investigate the relationship between close others' reports of their criticism and accommodation and their reports of their treatment concerns.
    - i. Hypothesis 4: Greater criticism will be associated with greater treatment concern; the relationship between accommodation and treatment concern is unclear.

## **Study 1: Context Matters: Criticism and Accommodation by Close Others Associated with Treatment Attitudes in those with Anxiety**

Anxiety and related disorders are the most commonly occurring class of mental disorders (Kessler, Ruscio, Shear, & Wittchen, 2009), with a lifetime prevalence of approximately 29% (Kessler et al., 2005). Anxiety and related disorders often begin early in life and persist throughout the life course (Kessler, 1997; Kessler et al., 2009), resulting in economic costs of billions of dollars annually (Kessler & Greenberg, 2002; Koerner et al., 2004). Despite having effective treatments for anxiety, up to 75% of sufferers do not seek treatment (Johnson & Coles, 2012; Ng et al., 2008; Reavley, Cvetkovski, Jorm, & Lubman, 2010; Roness, Mykletun, & Dahl, 2005), many delay treatment for years after onset (Christiana et al., 2000; Wang et al., 2005), and a fifth of those who enter treatment drop out early (Gersh, et al., 2017; Taylor, Abramowitz, & McKay, 2012). Given the immense personal and societal costs of chronic anxiety and related disorders, further understanding the reasons people do or do not engage in treatment is crucial. Treatment interest, engagement, and success are all related to one's attitudes about treatment (Li, Dorstyn, & Denson, 2014; Price & Anderson, 2012; Santana & Fontenelle, 2011; Safren, Heimberg, Juster, 1997). Treatment attitudes are the varying beliefs held by individuals that impact their treatment seeking intentions and actions (Elhai, Schweinle, & Anderson, 2008; Vogel, Wester, Wei, & Boysen, 2005). Understanding what factors influence treatment attitudes will allow us to address some of the barriers to treatment seeking and success.

Research on the predictors of treatment attitudes has largely focused on individual factors, such as race, gender, educational attainment, and age. Younger (Mojtabai, Olfson, & Mechanic, 2002; Picco et al., 2016), female (Mojtabai, et al., 2002; Nam et al., 2010), White (Kam, Mendoza, & Masuda, 2019; Nam et al., 2010), and more educated individuals (Picco et

al., 2016) tend to have more positive attitudes towards therapy. Additionally, practical factors such as service availability, mental health knowledge, insurance coverage, and treatment costs (Bonabi et al., 2016; Johnson & Coles, 2012; Mojtabai, et al., 2002) are likely to influence treatment attitudes. While we know that these individual factors are important, researchers have also argued that the success of behaviour change efforts “will depend on our increasing sophistication about the role of social and situational factors” (Ross, Lepper, & Ward, 2010, p. 26). Social factors are incredibly important when it comes to making care decisions (Pescosolido, 1992). Social support, broadly defined, is related to more positive treatment attitudes (Nam et al., 2013; Vogel, Wester, Wei, & Boysen, 2005, but see also Li et al., 2014) and social stigma is related to more negative treatment attitudes (Jennings et al., 2015). However, the impact of specific relational behaviours on treatment attitudes has yet to be studied. Doing so may help us identify useful points of intervention in the social systems of clients who are ambivalent about therapy. Important relational variables in anxiety disorder development and maintenance include *perceived criticism* and *accommodation of anxiety symptoms*.

Previous research in people with anxiety disorders suggests that criticism by close others is related to increased stress (Steketee, Lam, Chambless, Rodebaugh, & McCullough, 2007) and anxiety symptoms (Chambless et al., 2001; Renshaw, Steketee, and Chambless, 2005). Criticism from loved ones is associated with worse treatment outcomes (Chambless and Steketee, 1999), higher rates of relapse (Emmelkamp, Kloek, and Blaauw, 1992; Steketee, 1993), and higher rates of treatment dropout (Chambless and Steketee, 1999). Those with anxiety may internalize the criticism of close others (Brewin, Andrews, & Furnham, 1996) and doubt their ability to succeed, leading to less engagement with treatment. Additionally, sensitivity to criticism is related to increased distress during exposure treatment in particular (Steketee et al., 2007). In other words,

those who experience more criticism, or experience criticism as more distressing, may see treatment as having higher costs (e.g., increased stress, another target for criticism) and lower benefits (e.g., not feeling capable of succeeding in reducing anxiety). Individuals in critical family environments are more likely to use maladaptive, reactive coping strategies, such as avoidance (Repetti, Taylor, & Seeman, 2002), rather than longer-term strategies, such as therapy. Taken together, we hypothesize that higher perceived criticism from close others may be related to higher treatment ambivalence.

Anxiety accommodation includes modifying daily routines to accommodate the sufferer's anxiety (e.g., avoiding certain situations, providing reassurance, taking over tasks). The first studies of accommodation focused on obsessive-compulsive disorder, but in recent years, the literature has expanded to explore the role of accommodation in anxiety disorders more broadly (Lebowitz, Panza, & Bloch, 2016). For those with anxiety, accommodation is the rule, not the exception: more than 95% of families report accommodating anxiety symptoms (e.g., Lebowitz et al., 2013). Accommodation provides relief in the short-term, but is associated with increased anxiety in the long-term (Calvocoressi et al., 1999; Lebowitz et al., 2013; Merlo, Lehmkuhl, Geffken, and Storch, 2009; Strauss, Hale, and Stobie, 2015; Wu et al., 2016). From the perspective of the sufferer, however, if anxiety is readily accommodated, the perceived need for treatment may decrease and the inconvenience of treatment may outweigh the perceived benefits. Mirroring the accommodation literature more generally, the only study investigating the relationship between treatment attitudes and accommodation was in a small sample of youth with OCD. The authors found a significant positive correlation between family accommodation and treatment ambivalence (Selles, Rowa, McCabe, Purdon, & Storch, 2013). In the current study, we expect to replicate this relationship in a sample of adult anxiety sufferers (broadly defined).

In summary, the purpose of the current study is to enhance our understanding of how certain aspects of one's social environment relates to one's attitudes towards therapy. To this end, we collected data on treatment ambivalence, anxiety accommodation, and perceived criticism in an analogue sample of undergraduate participants who endorsed above-average levels of anxiety and a clinical sample of community participants who met criteria for an anxiety or related disorder. We hypothesize that higher perceived criticism and higher accommodation will be predictive of higher treatment ambivalence, as shown through regression analyses. In addition, because previous therapy experience may influence responses, we were interested to test whether the effects of the hypothesized predictors would remain when therapy experience was controlled for. We similarly controlled for sample type (clinical and analogue). We predicted that perceived criticism and accommodation would continue to be significant predictors of treatment ambivalence even when therapy history and sample type are controlled for.

## **Methods**

### **Procedure**

The analogue (non-clinical but scoring high on anxiety measures) sample ( $N=307$ ) was composed of undergraduate students from a mid-sized Canadian university. Students who scored at or above the 75<sup>th</sup> percentile on the Stress subscale of the Depression Anxiety Stress Scales (DASS-S; Lovibond & Lovibond, 1995) were invited to participate in this study, and those who participated received partial course credit. We chose to use the DASS-S rather than the DASS-Anxiety subscale because the DASS-S measures nervous energy, worry, ability to relax, and over-reactions, whereas the DASS-A measures more physical hyperarousal (Antony, Bieling,

Cox, Enns, & Swinson, 1998); thus, we used scores on the DASS-S to select participants as it was thought to be more applicable to the broad types of anxiety characteristic of anxiety and related disorders that we aimed to study in this sample (as in Merritt & Purdon, 2020).

The clinical sample ( $N=65$ ) was recruited from an anxiety participant pool, which consists of adults from the community who have been formally assessed using the Mini-International Neuropsychiatric Interview (MINI), adapted to the Diagnostic and Statistical Manual of Mental Disorders, 5<sup>th</sup> Edition (“DSM-5”) (Sheehan, 2014; Moscovitch et al., 2015). Based on these assessments, those whose principal or co-principal diagnosis was an anxiety or related disorder (disorders that are characterized by anxiety, including those from the anxiety disorders section of the DSM-5; obsessive-compulsive disorder, OCD; post-traumatic stress disorder, PTSD; illness anxiety disorder, IAD) were invited to participate ( $n=298$ ) in July 2020. A total of 65 participants completed the online study before the study was closed in April 2021.

The online study included a brief overview of cognitive-behavioural therapy (CBT) for anxiety (see Appendix A). After reviewing this information, participants were asked to complete a measure of treatment attitudes as if they were considering whether or not to begin CBT for their anxiety. Participants also completed questionnaires on demographics, family accommodation, and perceived criticism.

## **Participants**

See *Table 1* for participant demographics, diagnosis, and impairment in each sample. In the analogue sample, 45% ( $n=137$ ) of participants had therapy experience, with 25% ( $n=78$ ) having had experience with CBT in particular, and 13% ( $n=41$ ) currently being in therapy. Thirty-six percent ( $n=112$ ) of analogue participants reported having received a diagnosis for their

anxiety. In the clinical sample, 77% ( $n=50$ ) of participants had therapy experience, with 54% ( $n=35$ ) having had experience with CBT specifically, and 25% ( $n=16$ ) currently being in therapy.

*Table 1: Study 1 Participant Background Information*

	Clinical Sample ( $N=65$ )	Analogue Sample ( $N=307$ )
<b>Age (years)</b>		
Range	19-64	16-50
Mean	33.0	19.9
SD	12.5	3.6
<b>Gender, <math>n</math> (%)</b>		
Male	9 (13.8%)	35 (11.4%)
Female	54 (83.1%)	262 (85.3%)
Gender non-binary, gender non-conforming	2 (3.1%)	9 (2.9%)
Decline to answer	0 (0%)	1 (0.3%)
<b>Ethnicity, <math>n</math> (%)</b>		
White	47 (72.3%)	123 (40.1%)
East Asian	6 (9.2%)	63 (20.5%)
South Asian	4 (6.2%)	53 (17.3%)
Southeast Asian	3 (4.6%)	18 (5.9%)
Other	5 (7.7%)	50 (16.2%)
<b>Principal diagnoses, <math>n</math> (%)</b>		
SAD	35 (53.8%)	N/A
GAD	14 (21.5%)	
OCD	8 (12.3%)	
Panic disorder	5 (7.7%)	
Illness anxiety disorder	2 (3.1%)	
Other specified anxiety disorder	1 (1.5%)	
<b>Co-principal diagnoses, <math>n</math> (%)</b>		
Persistent depressive disorder	5 (7.7%)	N/A



Agoraphobia	4 (6.2%)	
Specific phobia	2 (3.1%)	
Major depressive disorder	1 (1.5%)	
Other specified eating and feeding disorder	1 (1.5%)	
Alcohol use disorder	1 (1.5%)	
None	51 (78.5%)	
<hr/>		
Anxiety impairment, <i>n</i> (%)		
None	0 (0%)	5 (1.6%)
Small	24 (36.9%)	89 (29%)
Moderate	31 (47.7%)	140 (45.6%)
Great	10 (15.4%)	73 (23.8%)

*Note:* anxiety impairment was assessed by asking respondents “to what extent does your anxiety get in the way of your daily life/activities?” with examples provided, and response options “not at all”, “to a small degree”, “to a moderate degree”, and “to a great degree”. Analogue participants were asked whether they had ever received a diagnosis and 36% ( $n=112$ ) reported that they had; however, they did not undergo an assessment as part of this study so principal and co-principal diagnoses could not be reported.

## Measures

The Treatment Ambivalence Questionnaire (TAQ; Rowa et al., 2014) was used to measure treatment attitudes. The 26-item TAQ assesses common concerns about treatment in those with anxiety and related disorders. It consists of three subscales: personal consequences (e.g., ‘If treatment works, I might change in ways that other people won’t like’), adverse reactions (e.g., ‘treatment might cause me too much anxiety or distress’), and inconvenience (e.g., ‘treatment is going to be too time-consuming’). It shows good internal consistency and discriminant validity (does not just measure general distress). Items are rated on a 7-point scale from ‘strongly disagree’ to ‘strongly agree’. Higher scores indicate greater ambivalence about treatment (Cronbach’s alphas:  $\alpha_{\text{analogue}}=.92$ ;  $\alpha_{\text{clinical}}=.91$ ,  $\alpha_{\text{all}}=.91$ ).

Accommodation was measured using the Family Accommodation Scale Anxiety-Adult Version (FASA-AR; Lou et al., 2020). This scale asks participants with anxiety to identify the person who is most involved in their anxiety, then answer nine questions about the frequency (0, ‘very rarely’ to 4, ‘very often’) of different kinds of accommodation that person engages in (e.g., reassurance, helping avoid, changing routine, taking over responsibilities). The original Family Accommodation Scale was designed to measure accommodation in OCD and has since been adapted for measuring accommodation in both children and adults with anxiety, and from the perspective of both the accommodator and the accommodated (Lebowitz, Panza, & Bloch, 2016). The FASA-AR shows good internal consistency and convergent and divergent validity (Lou et al., 2020). Accommodation, as rated by the person who is accommodated, shows a significant relationship with accommodation as rated by the person who accommodates (Lebowitz, Scharfstein, & Jones, 2015). The nine items are summed to create the total accommodation score (ACC) used in this study ( $\alpha_{analogue} = .88$ ;  $\alpha_{clinical} = .86$ ,  $\alpha_{all} = .87$ ).

Perceived criticism was measured using the Perceived Criticism Measure (PCM; Hooley & Teasdale, 1989; Chambless & Blake, 2009). If participants stated that their romantic partner was the person most involved in their anxiety (24.0%), they completed PCM questions about their romantic partner. If not, they answered PCM questions about the person who they reported was most emotionally important to them; this was most often a parent (52.4%), but people also reported on their siblings (10.6%), close friends (5.5%), other family members (2.4%), or unspecified (5.1%). The PCM includes two items (rated on a 10-point scale): ‘how critical do you think this person is of you?’ and ‘when this person criticizes you, how upset do you get?’ (Masland & Hooley, 2015). For the purposes of the current study, “perceived criticism” is an umbrella term referring to one’s experience of criticism and encompassing both items. Perceived

criticism relates significantly to others' reports of their own criticism (Chambless et al., 1999), is unrelated to demographic variables (Renshaw, 2008), neuroticism (Masland, Hooley, Tully, Dearing, & Gotlib, 2015), and anxiety severity (Renshaw, Chambless, & Steketee, 2001, 2003), and shows strong test-retest reliability (Hooley & Teasdale, 1989). In the current study, the two items were not well correlated ( $r < .3$ ) and thus were not unifactorial. Given that the second item was more correlated with treatment ambivalence than the first, and that we were more interested in the impact of criticism than the extent of criticism, the second item was chosen to represent perceived criticism (PC) for this study. This item alone shows good reliability as well as good convergent, divergent, and predictive validity (White, Strong, & Chambless, 1998).

## Results

Analyses were performed using SPSS Version 24. Z-score analysis and visual inspection of box plots revealed no outliers within either group (outliers defined as being 3 SD from the mean and discontinuous from the distribution). Missing item values ( $n=13$ ) were replaced with that respondent's subscale mean value. All variables showed normal distributions, with skew and kurtosis within acceptable ranges (Kline, 1998). See *Table 2* for descriptive statistics on each variable of interest. Perceived criticism and accommodation were not significantly related to each other in either sample ( $r_{\text{clinical}}=.159, p=.242; r_{\text{analogue}}=-.083, p=.163$ ).

*Table 2. Descriptive Statistics Across Groups*

	Clinical Sample ( $N=65$ )		Analogue Sample ( $N=307$ )	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Accommodation (ACC)	11.40	6.84	13.94	8.07

Perceived Criticism (PC)	5.66	2.94	7.09	2.28
Treatment Ambivalence	88.98	27.01	104.83	26.98

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We predicted that (1) perceived criticism and accommodation would be significantly positively related to treatment ambivalence, and that (2) they would continue to be significant predictors even when therapy history and sample type was controlled for. Stepwise hierarchical linear regression was used to explore these hypotheses.

Hypothesis 1 was explored by entering these main variables and their interactions into a regression (see *Table 3*). It was significant,  $F(3, 351)=14.195, p<.001$ . As expected, both accommodation and perceived criticism were significantly positively related to treatment ambivalence. The interaction was not significant and was dropped from future regression analyses.

To control for therapy history and sample type, a regression was conducted with these variables on step 1 and the main predictors (perceived criticism and accommodation) on step 2. The first step was significant,  $F(2, 352)=12.291, p<.001$ , with both sample type ( $p<.001$ ) and therapy history ( $p=.017$ ) being significant predictors of treatment ambivalence. The analogue sample was significantly more ambivalent than the clinical sample,  $t(368)=4.246, p<.001$ , and those without therapy history were significantly more ambivalent than those who had attended therapy in the past,  $t(368)= -3.559, p<.001$ . Most relevant to our hypothesis, step 2 was also significant,  $F(4, 350)=15.863, p<.001$ , with both criticism ( $p<.001$ ) and accommodation ( $p=.016$ ) remaining significant even when therapy history and sample type were controlled for (see Model 3 in *Table 3*). Exploratory analyses indicated that neither sample type nor therapy history interacted significantly with criticism and accommodation to predict treatment ambivalence

( $p > .286$ ). Additionally, when participant age, gender, ethnicity, and relationship type were controlled for, criticism and accommodation remained significant predictors of treatment ambivalence.

*Table 3. Regressions on Treatment Ambivalence*

Model	Predictors	R	R <sup>2</sup>	F change	β
1	ACC	.329	.108	14.195***	.343*
	PC				.411***
	PCxACC				-.258
2	Therapy Experience	.255	.065	12.291***	.129*
	Sample Type				-.189***
3	Therapy Experience	.392	.153	18.231***	.140**
	Sample Type				-.141**
	ACC				.121*
	PC				.273***

*Note: ACC=family accommodation; PC=perceived criticism.*

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

## Discussion

This paper explored the impact of accommodation and perceived criticism of close others on treatment attitudes for individuals with anxiety. The data suggest that one's perceived relational context is meaningfully related to how one feels about treatment: higher levels of

perceived criticism and accommodation are predictive of higher treatment ambivalence, even when controlling for therapy history and sample type.

Consistent with hypotheses, higher perceived criticism was related to higher ambivalence. People with anxiety may expect that if important others are critical of them in general, they may be critical of their treatment efforts as well. A number of items on the treatment ambivalence measure are related to interpersonal consequences of attending treatment, such as changes in relationships or stigma around mental health; these items may be particularly related to perceived criticism from others. However, this finding is particularly interesting given that the opposite relationship is also conceivable: criticism could highlight necessary changes and thus be a motivating factor for treatment. In fact, family members may feel that criticism is helpful in this regard (Chambless, Bryan, Aiken, Steketee, & Hooley, 1999), but research shows that this type of response can elevate one's stress (Renshaw, Steketee, & Chambless, 2005). In particular, research shows that one's reaction to criticism is related to increased stress during treatment, rather than the extent of the criticism (Steketee et al., 2007), and those with anxiety disorders show greater distress in response to close others' criticism than non-anxious controls (Porter, Chambless, Keefe, Allred, & Brier, 2019). This is consistent with our finding that reactivity to criticism was more related to treatment ambivalence than the extent of criticism. Additionally, those who are criticized may have a more negative self-concept and feel more hopeless or pessimistic about treatment success. This hypothesis is consistent with research showing a relationship between relatives' expressed emotion and patients' self-esteem (Hinojosa-Marques, Monsonet, Kwapil, & Barrantes-Vidal, 2021), as well as between self-confidence and readiness for change (Basharpour, Heidari, & Narimani, 2020). Future research may explore the avenues through which criticism affects treatment engagement.

In addition, higher perceived accommodation was related to higher ambivalence. Accommodation is often performed by close others in order to reduce distress (Calvocoressi et al., 1999) and those who are accommodated may be inadvertently sent the message that they are incapable of managing their distress. This is consistent with research showing that parent over-control is related to limited sense of personal competence (Bögels & Brechman-Toussaint, 2006; Wood, McLeod, Sigman, Hwang, & Chu, 2003). One's sense of competence is a critical factor in enacting health-promoting behaviours (e.g., Amiri, Chaman, & Khosravi, 2019; Choo & Kang, 2014; Cohen & Panebianco, 2020; Gillis, 1993), therapy being an example of such. Those who are often accommodated may believe themselves to be incapable of managing distress and thus may believe that treatment will be too distressing for them. Another plausible explanation is that those who are readily accommodated may simply experience less distress overall and may see less need to attend treatment. Exploratory analyses show that the treatment ambivalence subscale most related to accommodation is "inconvenience"; thus, for those who are being accommodated, the inconvenience of treatment may outweigh the potential benefits. Future research could explore whether treatment attitudes mediate the relationship between accommodation and poorer treatment outcomes for those with high family accommodation (Kagan, Peterman, Carper, & Kendall, 2016).

### **Limitations**

The proportion of variance in treatment ambivalence accounted for by our predictors was relatively low, suggesting that although family factors are important, there are additional factors to consider (e.g., one's perception of their anxiety, treatment availability, etc.) when understanding one's treatment ambivalence. However, this small effect size is not insignificant: when considering all adults who feel anxiety, these interpersonal variables could be the

difference between a large number of people entering versus avoiding therapy. Future studies could examine the additional potential explanatory power of perceived helpfulness of past treatment(s), type(s) of past treatment, and perceptions of CBT. This study focused on treatment attitudes around CBT, given that it is the most common evidence-based practice for anxiety; however, additional research could explore whether these variables are predictive when participants are considering other types of therapies.

This study is also limited in that the sample was dominated by women. Women are more likely to have significant anxiety (Lewinsohn et al., 1998) with higher illness burden (McLean, Asnaani, Litz, & Hofmann, 2011); in this way, this research may be representative of those who seek treatment for anxiety. However, it would be interesting to see if these patterns would replicate in a male sample, who may have stronger treatment ambivalence (Nam et al., 2010), or a larger sample of those who identify as non-binary.

Although there is a documented relationship between treatment attitudes and treatment seeking behaviours and treatment engagement, we did not directly measure these additional variables of interest. This is an area for future investigation. Our study was correlational in nature and cannot address causation. The relationships may also be more complicated than our study was able to explore; for example, criticism could lead to increased passivity and pull for greater accommodation. Additionally, we did not conduct diagnostic assessments with our analogue sample, so we cannot be sure about the diagnostic status of participants in this sample. We also cannot be certain of the true nature of others' criticism and accommodation, as this study used self-report measures of each. However, previous research shows a significant correlation between self- and other-reported criticism (Chambless et al., 1999) and



accommodation (Lebowitz, Scharfstein, & Jones, 2015). Given that this research is the first of its kind, it should be regarded as a preliminary investigation warranting follow up.

## **Conclusions**

This study is the first to examine the relationship of close others' behaviours (perceived criticism and accommodation) to treatment attitudes in those with anxiety. Greater perceived criticism and greater perceived accommodation by close others was related to greater treatment ambivalence, regardless of clinical status or treatment history. Well-intentioned close others who are frustrated or burdened by their loved one's anxiety may engage in criticism and/or accommodation in order to motivate their loved one to change or to assuage their distress. However, in doing so, they may inadvertently steer their loved ones away from therapy. Clinicians tend to treat the individual (Norcross, Hedges, & Castle, 2002). However, family members, friends, and romantic partners are the systems that make up our clients' lives. The behaviours of important others can influence the decision to pursue treatment for mental health difficulties. It may be helpful for clinicians to discuss these factors with their clients and address treatment ambivalence upfront. Clinicians may benefit from involving loved ones and educating them about the role of criticism and accommodation; limiting these behaviours may reduce treatment ambivalence. These strategies could be especially fruitful in the early stages of treatment, when clients may be in the contemplation stage and unsure about whether they are ready to commit to tackling their anxiety.

## **Study 2: How do Close Others to Those with Anxiety Feel About Treatment? Development and Validation of the Treatment Concerns Questionnaire–Close Others**

It is estimated that up to one quarter of the North American population experiences an anxiety or related disorder in their lifetime (Somers et al., 2006). Anxiety can be effectively treated through psychological interventions, such as cognitive-behavioural therapy (Cuijpers, Cristea, Karyotaki, Reijnders, & Huibers, 2016). However, only a small minority of people with anxiety seek treatment (Roness, Mykletun, & Dahl, 2005), and many delay treatment seeking for many years (e.g., one study found an average delay of 9-23 years; Wang et al., 2005). Given the high economic burden of anxiety disorders in North America (Kessler & Greenberg, 2002; Koerner et al., 2004), it is essential to understand barriers to treatment seeking.

Those with anxiety and related disorders balance both approach and avoidance motivations in their decision to seek treatment (Kushner & Sher, 1989). For example, the distress and impairment from anxiety may be a motivation to seek treatment, while the stigma and cost of treatment may motivate treatment delay. In addition to a variety of personal factors that affect this decisional balance is the individual's social context, including the opinions and attitudes of family members and close others. Social context has been identified as an important factor in health outcomes (Repetti, Taylor, & Seeman, 2002) and in medical decision making (Pescosolido, 1992). Family members are often involved in health care decisions, including decisions about anxiety and related disorders (e.g., Geffken et al., 2006; Thompson-Hollands, Kerns, Pincus, & Comer, 2014). People with mental health difficulties commonly consult family members before health care professionals when considering treatment for mental health (Maria Bermúdez, Kirkpatrick, Hecker, & Torres-Robles, 2010; Henshaw, Sabourin, Warning, 2013) and one of the most frequent reasons for entering treatment is family influence/support or

impairments in personal relationships as a result of mental health difficulties (Orford et al., 2006; Polcin & Beattie, 2007; Tsogia, Copello, & Orford, 2001). People are sensitive to the anticipated reactions and attitudes of close others (e.g., family, significant others) when considering therapy (Leaf, Bruce, & Tischler, 1986; Earnshaw, Smith, Copenhaver, 2013).

Although there are multiple treatment options for individuals with anxiety and related disorders, a first-line treatment is cognitive-behavioural therapy (CBT), an evidence-based psychological treatment (for a recent meta-analysis, see Cuijpers, Cristea, Karyotaki, Reijnders, & Huibers, 2016) that is considered the “gold standard” for anxiety treatment (David, Cristea, & Hofmann, 2018). The impact of the family/interpersonal context on decisions about a psychological treatment like CBT, specifically, is an important and interesting area of study. As noted above, loved ones’ support could be an important reason to seek treatment, and positive attitudes in loved ones may encourage someone to enter treatment earlier than they might otherwise. In contrast, just as perceptions of social stigma are related to reduced help-seeking efforts ( $d = -0.27$ ; Clement et al., 2015), the anticipation that close others may respond poorly to a decision to seek treatment could foster apprehension about therapy (Corrigan, Druss, & Perlick, 2014). As Corrigan and colleagues noted, cultural factors or family members’ own negative experiences with therapy may cause them to discourage their loved one from seeking therapy. Additionally, even if treatment is initiated, the attitudes of close others have the power to influence treatment engagement and success. For example, youth with behavioural challenges with parents who perceive mental illness as unchangeable or see treatment as inconvenient are less likely to report therapeutic change and are more likely to drop-out (Morrissey-Kane & Prinz, 1999).

Although research in youth samples suggests that close others' therapy attitudes can influence treatment engagement, response, and drop out, there has been little research on this topic, particularly for people with anxiety and related disorders. Treatment acceptability research has surveyed parents of youth with ADHD (Berger, Dor, Nevo, Goldzweig, 2008) and family members of those with schizophrenia (Irani, Dankert, & Siegel, 2004), finding that family members are supportive of pharmacological interventions for mental health treatment. Tarnowski and colleagues (1992) found that parents prefer therapy over medication for the treatment of childhood depression, and similar findings have been reported for childhood anxiety (Brown, Deacon, Abramowitz, Dammann, & Whiteside, 2007; Chavira, Stein, Bailey, & Stein, 2003). However, these studies focus on childhood disorders and many are hypothetical (e.g., “*if I had a child with social anxiety...*”). As such, we know little about the attitudes towards therapy held by people who are close to an adult with an anxiety or related disorder.

Despite research showing that family members perceive therapy positively, there is preliminary evidence that close others may also hold fears about therapy (e.g., that they may be blamed for the development of the disorder; Renshaw et al., 2005) and the logistics around therapy (e.g., practical obstacles like time and money; Kazdin, Holland, & Crowley, 1997). Additionally, close others may share concerns that clients themselves hold about therapy, such as worries about treatment failing or resulting in worsened symptoms (see the Treatment Ambivalence Questionnaire; Rowa et al., 2014). However, to date there has been no systematic study of treatment concerns in the close others of adults with anxiety and related disorders, nor is there a validated measure of loved ones' concerns. Development of such a measure would allow us to explore the impact of treatment ambivalence of close others on their loved ones' pursuit of and success in therapy. Additionally, given the recent clinical trend towards systemic

interventions, including the involvement of important others in anxiety treatments (Chambless, 2012; Thompson-Hollands, Edson, Tompson, & Comer, 2014; and for a review see Carr, 2014), such a measure would be of use to clinicians when considering such involvement.

The purposes of the current studies are to develop and validate a measure of treatment ambivalence for close others of those with anxiety and related disorders, drawing from the methods used by Rowa et al. (2014). Rowa and colleagues surveyed those with anxiety- and related disorders with an open-ended form eliciting treatment fears and concerns. They coded these responses to understand themes and used these themes to develop items for the Treatment Ambivalence Questionnaire, which they administered to a large sample and explored its factor structure, reliability, and validity. The current series of studies aimed to conduct a similar procedure to explore the treatment concerns of close others to those with anxiety. The first study sought to determine the nature and range of the concerns close others have about cognitive-behavioural therapy for their loved one with anxiety. Because attitudes are culturally influenced (Kushner & Sher, 1989, 1991) and there are different beliefs about family roles, mental illness, and therapy in different cultures, it is important to note that this sample is drawn from a Canadian population and may not reflect treatment concerns globally. Using the inductive method for item generation (Boateng, Neilands, Frongillo, Melgar-Quinonez, & Young, 2018), the qualitative data collected in study 1 was used to develop the Treatment Concerns Questionnaire-Close Others (TCQ-C). The second study examined the psychometric properties of the TCQ-C, including factor structure, internal consistency, and convergent and divergent validity.

## **Study 2A: Measure Development**

Many people will experience an anxiety or related disorder in their lifetime, but a minority will seek treatment. Close others can influence not only the course of a mental health difficulty, but also the person's treatment-seeking efforts. Close others may be supportive of entering treatment, but they may also have concerns about treatment that can influence their loved ones' decisions with respect to treatment seeking and drop out. Despite research suggesting that family members can influence therapy success, to date no research has directly surveyed the concerns loved ones of those with anxiety and related disorders have about their loved ones starting therapy. The purposes of the current study were to: i) obtain qualitative data on the concerns people have about their loved one receiving CBT; ii) identify the general themes following the principles of grounded theory, in which the conceptualization of an idea is conducted in a bottom-up manner (from data to theory; Chun Tie, Birks, & Francis, 2019); and, iii) use this data to develop a quantitative measure of close other treatment ambivalence.

## **Methods**

### **Procedure**

Participants were loved ones of people seeking treatment at an outpatient adult anxiety clinic in Ontario, Canada. We defined "loved one" broadly and included anyone who considers themselves to be a "close other" to the person with anxiety (e.g., family members, romantic partners). The study was advertised through posters in the clinic, at family education sessions, and posters given to clients to pass onto loved ones if they wished. People who were over 18 years of age and whose loved ones had not yet begun treatment or were in the first month of treatment were invited to participate in the online survey. Those who participated were able to

enter a draw to win a gift card. The survey began with a brief overview of CBT to ensure that all participants had a basic understanding of this form of therapy (see Appendix A). The survey also included demographic questions, a questionnaire about treatment expectations, and open-ended forms on which participants could report expected benefits of and concerns about treatment. Participants were asked to rate each the intensity of each concern from 1 (“minor concern”) to 10 (“major concern”). For the purposes of this study, we report only on respondents’ concerns and how those were used to create the measure.

### **Participants**

Participants (that is, those reporting on their concerns about their loved one starting treatment) (n=33) ranged from 18-65 years of age and were 43.15 years of age on average (SD=12.03). About half (52.6%) of the participants were female-identified (2.6% trans or non-binary). The majority (73.7%) of participants were White (5.3% East Asian, 2.6% Aboriginal, 2.6% Latin American, 2.6% South Asian). The education background of the sample was varied, with 24.2% having completed university or college, 21.1% having completed some university or college, 15.8% having completed a graduate level degree, and 10.5% having completed high school.

Most participants were a parent (39.5%) or a romantic partner (34.2%) of an adult with anxiety; on average, participants knew the client for 18.77 years (SD=10.34). Many (60.5%) were currently living with them, and were in frequent direct (i.e., face-to-face;  $\mu= 35.07$  hours per week, SD=23.07, range=0-80) and indirect (i.e., text, call, etc.;  $\mu= 8.17$  hours per week, SD=20.51, range=0-112) contact with the client.

Participants reported that their loved ones with anxiety were 31.91 years of age on average (SD=9.98, range=18-54), 34.2% female-identified (2.6% trans or non-binary), and 50%

White (5.3% Asian, 44.7% information was not in clinical file). Diagnostic information (obtained through formal clinical assessments) was collected from the clinic with respondent and client permission. Diagnoses varied, with 15.8% of the sufferers having a primary diagnosis of OCD, 7.9% SAD, 7.9% GAD, 7.9% panic disorder, 5.3% depression, 2.6% PTSD; the remainder of the diagnoses were not retrievable from the client files (e.g., assessment was not yet complete or client had not consented to their data being used for research). Note that many of the clients had additional diagnoses, and all were seeking treatment for an anxiety or related (e.g., obsessive-compulsive or traumatic-stress) concern. Participants reported that 50% of those with anxiety had never received CBT, and for 87%, it was their first time seeking any kind of therapy for their anxiety. Participants reported that their loved ones with anxiety had been experiencing anxiety for 16.37 years on average ( $SD=10.40$ ).

## **Results**

Of the 33 participants, 23 (69.7%) reported having one or more treatment concerns. The modal number of concerns reported was 2 (range=0-6). The average intensity of the concerns was 6.67 ( $SD=1.95$ ) on a 10-point scale, with no concern being rated lower than 3. In total, there were 55 unique concerns. The list of concerns was initially reviewed to gain an understanding of the range of responses. Then, stage 1 coding was completed, whereby each response was given a label that reflected the themes of that concern (“lower-order” or “conceptual coding”; Charmaz, 2006). In accordance with grounded theory, lower-order codes were collapsed into categories or “higher-order” codes, which allow an understanding of larger themes in the data (Charmaz, 2006; Chun Tie, Birks, & Francis, 2019). After reviewing concerns and codes, all three authors agreed that the qualitative data had reached saturation, as data was beginning to repeat, and no



additional insights were identified. This number of participants is within the typical range for reaching saturation on qualitative data collection (Hennick, Kaiser, & Marconi, 2017; Marshall, Cardon, Poddar, & Fontenot, 2013). See the discussion for a comment on coder reflexivity.

Category coding resulted in seven main themes (see *Table 1*). All authors independently reviewed the coding, and no conflicts arose. In the interest of creating a quantitative measure based on this qualitative information, conceptual codes were used to create items that captured the main concerns from our dataset (both broad themes as well as individual concerns). This resulted in a pool of 24 items. Then, all authors reviewed the items, eliminating or combining those that were redundant, and ensuring all remaining items showed face and content validity. The remaining measure consisted of 19 items (2-4 from each thematic category).

*Table 4. Qualitative Themes: Close Others' Concerns about Treatment*

Theme	Frequency of Endorsement: n <sup>1</sup> (%)	Example Response <sup>2</sup>
Treatment will not work	16 (24.24%)	“Therapy ... won't work. We have tried many things that [haven't]”
Treatment failure will result in client hopelessness, depression, self-criticism	6 (9.09%)	“... He will feel even lower than he does now if it doesn't work because he sees no better life for himself”
Treatment will result in an unwanted change in family relationship(s)	8 (12.12%)	“... The treatment will put stress on our relationship”
Treatment will lead to unwanted changes in client's personality	2 (3.03%)	“He changes the person he is...”
Client will take on others' anxieties	5 (7.57%)	“She will pick up other problems or symptoms from peers”

Client will not fully engage with therapy	11 (16.67%)	“... My loved one will not practice elements introduced in the treatment.”
Treatment will lead to increased anxiety, stress, depression, and/or self-criticism	18 (27.27%)	“Treatment will cause him stress by having to face his anxiety.”

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<sup>1</sup>Although there were 55 unique concerns, some concerns contained content that spanned several categorical codes, resulting in them having more than one categorical code applied. There were 66 categorical codes in total.

<sup>2</sup> Respondents provided permission for the use of anonymous quotations.

### **Discussion**

Many participants reported treatment concerns and rated these concerns as important, with moderate to high intensity ratings. Seven main themes arose, with categories reflecting concerns about therapy not working, treatment failure leading the client to feel worse, therapy resulting in increased stress or new fears, therapy changing the loved one and the family relationships, and the loved one not fully committing to treatment. Participants reported that their loved ones had been experiencing anxiety for more than 15 years on average, which is consistent with previous research showing that treatment seeking is often delayed by a decade or more (Wang et al., 2005). Future research may explore whether the attitudes of close others are related to treatment seeking efforts and delays.

Interestingly, approximately one-third of participants did not report any concerns about treatment. This is consistent with previous research showing that family members are typically supportive of their loved one entering therapy (e.g., Chavira, Stein, Bailey, & Stein, 2003; Tarnowski, Simonian, Bekeny, & Park, 1992). However, this study sampled close others of

people who were already seeking treatment; it is likely that there would be greater ambivalence, on average, among close others of those who have not yet sought treatment (or do not intend to do so). Our sampling technique may have missed out on those who are not seeking treatment because close others' treatment concerns have interfered with their doing so; that is, our survey may have not captured the most serious concerns about treatment. Since we sampled from an adult anxiety clinic and the majority of clients were seeking therapy for the first time, it is also possible that some of the clients may be seeking treatment now that they can consent on their own, after previously avoiding treatment due to loved one's treatment concerns. Additionally, the majority of respondents in this sample were White; given research showing that culture can be an important variable in help-seeking attitudes (e.g., Mojaverian, Hashimoto, & Kim, 2013; Sun, Hoyt, Brockberg, Lam & Tiwari, 2016), it is important not to assume that these themes are reflective of those in other racial or ethnic groups. This may be particularly true for cultures in which beliefs about family, mental health, and/or therapy differ significantly from traditional Western beliefs. Future research may explore cross-cultural differences in the treatment attitudes of close others. In recognition of this limitation for the current study, the TCQ-C includes an open-ended question where respondents can report any additional concerns they have about treatment (see Appendix).

Several participants shared concerns about clients taking on others' anxieties. The outpatient clinic from which loved ones were recruited offers both individual and group therapy services, and loved ones may have been referring to their loved one hearing others' concerns in a group therapy format. Research is needed to explore how prevalent this concern is among patients and whether this feared "contagion" effect actually occurs in group therapy formats. However, inclusion of these concerns in the measure makes it more widely applicable; it may

generate useful information about loved ones' ambivalence regardless of the therapy format the sufferer is considering/entering.

Given that qualitative coding was involved in this study, reflection upon the potential role of the researchers in the research process is warranted. As a statement of reflexivity, the primary coder (first author) was a graduate student with a clinical training background and the two additional coders (second and third authors) were practicing psychologists and academic professors. All coders were White females, living in Canada, who use CBT as part of their clinical practice. These backgrounds likely played into the research design, collection, and interpretation. The purposes of the study are aligned with researcher beliefs that therapy is a valuable and worthwhile venture for many individuals, and the drive to understand and overcome barriers to treatment success. The work is also influenced by an assumption that families tend to want to support their loved ones, even if they find symptoms challenging. The authors' prior experiences with clients and their families contributed to the assumption that family members can be ambivalent and have concerns about treatment. This assumption was incorporated into the open-ended form that was used to collect respondent treatment concerns; however, participants were also asked about perceived benefits of the treatment in an attempt to minimize demand characteristics. Prior experience with clients and the research literature on clients' concerns about therapy may have been a source of influence on the coding of data and generation of themes. We attempted to minimize the effect of this prior knowledge by collecting qualitative information from close others rather than creating items of our own. We were agnostic about the concerns and themes that would arise. We attempted to create items that reflected both general trends in the data as well as individuals' concerns in order to ensure that multiple perspectives were incorporated into the items that were created.

Loved ones reported significant worries about treatment. This warrants the development of a quantitative measure of close others' concerns. Such a measure could fill an important gap in our understanding of the underutilization of anxiety treatment and could be used by researchers to study the relationship between ambivalence in close others, client ambivalence, and treatment success. Additionally, when working with clients with anxiety and related disorders, clinicians could use such a measure to understand the treatment attitudes of close others, address their concerns, and/or determine their level of involvement in therapy.

## **Study 2B: Measure Validation**

The purpose of the current study was to evaluate the psychometric properties of the TCQ-C through examining its factor structure, internal reliability, and construct validity. As such, we performed an exploratory factor analysis and examined the internal reliability of each subscale through calculating Cronbach's alpha coefficients. In addition, we examined construct validity through evaluating the measure's relationship to a theoretically related construct (convergent validity with treatment expectations) and a theoretically unrelated construct (discriminant validity) that may have an indirect effect on responses (i.e., distress).

To explore convergent validity, a pre-existing measure of treatment expectations was selected. Theoretically, one's treatment expectations should be related to one's treatment attitudes, such that the more negative one's attitudes about treatment, the more one feels treatment will not work. For example, Gonzalez, Tinsley, Howard, and Kreuder (2002) found that students' attitudes and expectations both saw a positive shift after a psychoeducational intervention. Given that treatment expectations and treatment ambivalence are not redundant concepts, we expected them to have a significant but modest correlation to each other.

Discriminant validity was examined through evaluating the relationship between the TCQ-C and a pre-existing measure of respondent distress. As in the psychometric assessment of the Treatment Ambivalence Questionnaire (Rowa et al., 2014), it was important to determine that one's beliefs about treatment were not solely a representation of their current levels of distress. Based on the findings from that study, small correlations were expected between these constructs.

## Methods

### Procedure

People who had a loved one with significant symptoms of an anxiety or related disorder were recruited from a number of sources: an outpatient anxiety clinic, a student population, a research database, posters in the community, and Amazon Mechanical Turk (“MTurk”). All participants confirmed that they had a loved one with significant, problematic, and/or excessive anxiety that has been present for six months or more. People who were over 18 years of age and who could read and understand English were eligible to participate; there were no age restrictions specified for the person with anxiety that participants reported on. Remuneration varied based on the recruitment method: students ( $n=71$ ) received course credit, MTurk participants ( $n=225$ ) received a small monetary compensation, and all others ( $n=61$ ) were entered into a draw to win a gift card. After consenting to participate, participants reviewed a brief description of CBT (the same as in Study 2A) and completed demographic questions and the other measures (see *Measures*). Additionally, participants completed measures about their relationship with their loved one’s anxiety (e.g., criticism, accommodation) and about their own distress tolerance and fear of compassion; for the purposes of this study, we report only on those measures that are relevant to the psychometric properties of the TCQ-C.

### Data Preparation

Given that the TCQ-C item means were similar across recruitment methods (multivariate GLM was significant,  $F(38,522)=2.386$ ,  $p<.001$ , Wilk's  $\Lambda=.725$ , but none of the post-hoc group differences were significant when correcting for multiple comparisons) and the items did not show significant skew or kurtosis, the combination of data into one sample was deemed appropriate (Guilford, 1952) and even advantageous, as it provides increased heterogeneity and

generalizability (Gaskin, Lambert, Bowe, & Orellana, 2017), and data from these different sources have been shown to be comparable in quality (Kees, Berry, Burton, & Sheehan, 2017). Once combined, data quality was analyzed. Bot and duplicate responding detection resulted in the deletion of 4 participants' data, failed attention checks resulted in the deletion of 18 participants' data (a smaller proportion than is often reported in MTurk samples; e.g., Kaufmann, Schulze, & Veit, 2011 as cited by Bentley, 2021), and two participants were removed from analyses due to reporting on themselves, rather than a loved one with anxiety. An additional 46 participants were removed from analyses due to having completed less than 50% of the items in the study (a similar proportion to previously reported community and MTurk samples; e.g., Zhang & Gearhart, 2020).

The remaining participants' (n=287) data showed acceptable skew and kurtosis on all measures (Kline, 1998). Outliers were examined through Z-score analysis and visual inspection of box plots; values that were 3 or more standard deviations from the mean and that were discontinuous from the distribution (n=9) were replaced with the respondent's subscale mean value, provided that the respondent had completed 80% or more of the items on that subscale.

## **Participants**

See Table 2 for demographic information about the respondents and their loved ones with anxiety. The majority of respondents were living in the United States of America (n=169, 58.9%) or Canada (n=107, 37.3%) when they participated, with < 5 participants each living in Barbados, China, Egypt, or India. The majority of their loved ones were also living in the United States of America (n=171, 59.6%) or Canada (n=104, 36.2%), with < 6 each currently living in China, Egypt, France, Germany, India, or South Korea.



Most respondents were a partner/spouse (n=79, 27.5%), parent (n=67, 23.3%), sibling (n=61, 21.3%) or adult child (n=45, 15.7%) of the person with anxiety. Other relationships (n=9) included grandparent, aunt/uncle, cousin, grandchild, close friend, and niece. The age of the sufferers (upon whom the respondents reported) was normally distributed, and the majority were adults: 9.9% were 6-17 years old, 33.4% were 18-29 years old, 26.4% were 30-45 years old, 22.2% were 46-64 years old, and 7% were 65-90 years old (1% did not report age). Most respondents (n=257, 89.5%) had lived with the sufferer at some point, and many (n=164, 57.1%) were living with them at the time of participation. On average, respondents knew the sufferer for 21.2 years (SD=12.9). Respondents were in frequent direct (i.e., face-to-face;  $\mu=30.5$  hours/week, SD=33.0, range=0-120) and indirect (i.e., text, call, etc.;  $\mu=8.9$  hours/week, SD=16.0, range=0-112) contact with the sufferer.

Respondents reported that their loved one had been experiencing anxiety for 15.8 years on average (SD=14.7). Respondents reported that their loved one's anxiety was impairing to a small (n=112, 39%), moderate (n=110, 38.3%), or great (n=42, 14.6%) degree (8.1% reporting that it did not seem to be impairing at all). Sixty-two percent of respondents (n=180) reported that their loved one had received a diagnosis for their anxiety and 55.1% (n=158) reported that their loved one had attended therapy for their anxiety. Twenty-two percent of respondents reported that the sufferer was in therapy at the time of the study.

*Table 5: Study 2B Participant Background Information*

	Participant (Close Others, n=287)	Person with Anxiety
Age (years)		
Mean	35.8	36.9
Standard Deviation	13.2	17.7
Gender, n (%)		

Male	94 (32.8%)	114 (39.7%)
Female	188 (65.5%)	164 (57.1%)
Gender non-binary, gender non-conforming	3 (1.0%)	7 (2.4%)
Declined to answer	1 (0.3%)	2 (0.7%)
<hr/>		
Ethnicity, n (%)		
White	200 (69.7%)	195 (67.9%)
East Asian	21 (7.3%)	16 (5.6%)
South Asian	18 (6.3%)	20 (7.0%)
Black/African American	14 (4.9%)	15 (5.2%)
Other	34 (11.8%)	41 (14.3%)
<hr/>		
Highest level of education, n (%)		
High school or less	39 (13.6%)	89 (31.0%)
Some or completed university/college degree	203 (70.7%)	144 (50.2%)
Some or completed graduate degree	41 (14.3%)	45 (15.7%)
Other or declined to answer	4 (1.4%)	9 (3.1%)
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## Materials

*Treatment Concerns Questionnaire-Close Others (TCQ-C)*. Treatment concerns were measured using the TCQ-C, the development of which was described in Study 2a. The TCQ-C lists 19 potential concerns based on those reported by close others of people with anxiety. For each item, respondents rate how much they agree or disagree that they are concerned on a 7-point scale from “strongly disagree” to “strongly agree”.

*Stanford Expectations for Treatment Scale, Family Modification (SETS-F)*. Treatment expectations were measured using a modified version of the SETS (Younger, Gandhi, Hubbard, & Mackey, 2012), which is a brief, 6-item scale, 3 items assessing for positive treatment expectations and 3 items for negative expectations. The measure shows acceptable internal consistency and predictive validity in health care settings (Younger, Gandhi, Hubbard, &

Mackey, 2012). For the purposes of this study, two items were slightly modified to become specific to a loved ones' anxiety treatment (e.g., original item "my condition will be completely resolved after this treatment" was modified to "my loved one's anxiety will be completely resolved after this treatment"). In this sample, the SETS-F showed acceptable internal consistency (positive expectations subscale: Cronbach's alpha (" $\alpha$ ")= .75; Revelle's omega ( $\omega$ )=.76 ; negative expectations subscale:  $\alpha$ = .79;  $\omega$ =.81).

*Depression, Anxiety, Stress Scales (DASS-21; Lovibond & Lovibond, 1995).* Respondent distress was measured through the DASS-21, a 21-item self-report scale that assesses for depression, anxiety, and stress. Each item is rated based on respondent's distress in the past week on a 4-point scale from "did not apply to me at all" to "applied to me very much, or most of the time". This widely used scale shows good reliability and validity (Antony, Bieling, Cox, Enns, & Swinson, 1998), and showed excellent internal reliability in this sample ( $\alpha$  =.96;  $\omega$ =.97). For the purposes of the current study, the DASS-21 was used as an indicator of respondent distress.

## **Results**

### **Exploratory Factor Analysis**

Two-hundred and eighty-one (n=281) participants completed the TCQ-C. Approximately 3% of those participants had 1 item missing from their response; missing items were treated with mean imputation. Items were within the recommended guidelines for skew and kurtosis (Watkins, 2018). Analyses were performed using SPSS version 24. Bartlett's test of sphericity (approximate Chi-Square(136)=2653.168,  $p$ <.001), and Kaiser-Myer-Olkin measure of sampling adequacy (.89) confirmed that the correlation matrix was factorable. Maximum likelihood estimation was used to identify a latent factor structure. Oblimin rotation was employed, as we assumed that factors would

be intercorrelated rather than orthogonal. Eigenvalues, scree plot, theoretical convergence, and percentage of variance accounted for by each factor were used to determine number of factors. Four factors showed eigenvalues over 1, accounted for a significant amount of variance, and represented the most parsimonious solution. A four-factor solution was robust across rotation methods and was also supported by the results of parallel analysis (conducted using RStudio, package “psych”, function “fa.parallel”): after 500 iterations, four eigenvalues from the observed correlations exceeded the eigenvalues from the simulated data correlations.

Item 1 (“treatment will change my loved one in unexpected ways”) showed discrepant loadings in the pattern matrix and the structure matrix, indicating that it is influenced by more than one factor; it was removed from analyses. Item 9 (“through treatment, my loved one may hear about others’ problems, and will think their own concerns are not valid”) loaded saliently on two factors (values within .10 of each other), so it was removed from analyses. The final four-factor solution accounted for 68.8% of the variance.

The first factor (“Adverse Reactions”, AR) was saliently loaded by six items, accounted for 41.89% of the variance, and showed good internal reliability ( $\alpha = .86$ ,  $\omega = .90$ ). The second factor (“Personal/Family Consequences”, PC) contained four items, accounted for 12.53% of the variance, and showed good internal reliability ( $\alpha = .80$ ,  $\omega = .95^1$ ). The third factor (“Lack of Commitment”, LC) was saliently loaded by four items, accounted for 7.62% of the variance, and good internal reliability ( $\alpha = .89$ ,  $\omega = .90$ ). The fourth and final factor (“Ineffectiveness”, IE) was saliently loaded by three items and accounted for 6.80% of the variance, with good internal reliability ( $\alpha = .82$ ,  $\omega = .82$ ). See Table 3 for descriptive statistics for each subscale and Table 4 for

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<sup>1</sup> Note that the initial report of Revelle’s omega for this subscale was .07. After investigation of multivariate outliers using R function “mahalanobis”, five were detected ( $p < .001$ ). This value reflects reliability once these outliers were omitted.

pattern coefficients and communalities of all items. When the 17 items are summed to make a total score, this total scale has excellent internal reliability ( $\alpha = .91$ ,  $\omega = .94$ ). Note that reliability was similar across recruitment sources ( $\alpha_{\text{student}} = .85$ ;  $\alpha_{\text{community}} = .90$ ;  $\alpha_{\text{MTurk}} = .93$ ); as expected, smaller subsamples show slightly lower reliability, but reliability is strong regardless of where the close other was recruited from.

*Table 6. TCQ-C Subscale Descriptive Statistics*

	Descriptive Statistics			
	Mean	SD	Skew	Kurtosis
AR	22.13	8.42	-.022	-.657
PC	9.21	4.79	1.04	.722
LC	16.36	6.60	-.254	-.959
IE	10.98	4.54	.095	-.878

TCQ-C Subscales: AR=Adverse Reactions, PC= Personal/Family Consequences, LC= Lack of Commitment, IE= Ineffectiveness; SD=standard deviation.

*Table 7. TCQ-C Factor Statistics*

Item #	Item	Factor Loadings				
		Communalities	F1	F2	F3	F4
3	My loved one will feel like a 'failure' if they do not 'succeed' in treatment.	.41	<b>.53</b>	.00	-.08	.11
10	Treatment will be overwhelming for my loved one.	.60	<b>.75</b>	-.05	-.14	-.07
12	My loved one will feel hopeless or depressed if treatment does not help.	.41	<b>.61</b>	-.06	-.03	.08

14	Treatment will create too much pressure for my loved one.	.75	<b>.81</b>	.00	-.02	.08
15	Through treatment, my loved one may learn about symptoms or fears others have, and will take on these fears or symptoms as their own.	.45	<b>.55</b>	.21	-.01	-.02
17	Treatment will lead to worsened symptoms.	.61	<b>.62</b>	.21	.03	.10
5	Treatment will negatively change the way my loved one sees me.	.71	.01	<b>.79</b>	-.06	.11
8	I will lose my relationship with my loved one because of this treatment.	.68	-.10	<b>.82</b>	-.10	.09
11	If my loved one's anxiety improves, other issues in our relationship/family will become more prominent.	.34	.09	<b>.56</b>	.00	-.14
13	Treatment will change my loved one in a negative way.	.57	.32	<b>.51</b>	.16	.18
7	My loved one will not use the coping tools that they learn in treatment.	.68	-.06	-.03	<b>-.73</b>	.23
16	My loved one will not be fully committed to improving.	.70	-.01	.08	<b>-.83</b>	-.04
18	My loved one will not complete all the required components of the treatment.	.67	.04	.03	<b>-.78</b>	.01
19	If treatment is difficult, my loved one will become discouraged and give up.	.74	.30	-.03	<b>-.70</b>	-.04
2	Treatment will not work.	.71	.19	-.11	.01	<b>.76</b>
4	Treatment will be a waste of time and/or money.	.54	-.03	.20	-.09	<b>.64</b>

6	Treatment will not be potent or comprehensive enough to help my loved one.	.60	.10	-.02	-.14	<b>.64</b>
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Extraction communalities are reported. Factor loadings are represented by pattern coefficients. F1= Adverse Reactions (AR); F2= Personal/Family Consequences (PC); F3= Lack of Commitment (LC); F4= Ineffectiveness (IE). See *Appendix B* for final measure.

Respondents also had the option to complete an open-ended form with any additional concerns they had. Ninety-five respondents (33%) listed concerns here, many of which were more specific examples of items from the scale (e.g., reasons why the treatment may be distressing for their loved one in particular). Using the coding system from study 2A, coding revealed that 22 described concerns fell under the Adverse Reactions category (e.g., group therapy being difficult for someone with social anxiety), 6 additional concerns were about personal/family consequences (e.g., support network not being encouraging of therapy), 34 concerns were around the loved one’s lack of commitment (e.g., they will not see therapy as applicable to them, will not co-operate, will stop therapy too early), and 12 concerns fell under the category of treatment being ineffective (e.g., therapist being unskilled, therapy not being tailored to their needs). Lastly, close others also endorsed concerns about treatment being too costly ( $n=11$ ), time-consuming ( $n=6$ ), or stigmatizing ( $n=4$ ).

**Convergent and Discriminant Validity**

We examined convergent validity through performing correlations between the TCQ-C subscales and the SETS, a measure of treatment expectations. As predicted, the TCQ-C subscales showed negative correlations with the positive expectations subscale of the SETS, and positive correlations with the negative expectations subscale of the SETS (see *Table 5*). Although all but one of these correlations were significant, beliefs about the ineffectiveness of treatment (TCQ-C-IE) were more strongly negatively related to positive expectations for treatment, and beliefs about

adverse reactions and personal consequences of treatment were more strongly positively related to negative expectations for treatment.

Discriminant validity was explored through examining the correlations between the TCQ-C subscales and the respondent DASS scale scores. The correlations between these measures were small to moderate (*r*s ranging from .08-.34; see Table 5), indicating that this measure is not just a reflection of one’s personal distress level.

*Table 8. Correlations: TCQ-C Subscales, General Distress, Treatment Expectations*

	TCQ-C- AR	TCQ-C- PC	TCQ-C- LC	TCQ-C- IE	DASS-S	DASS- A	DASS -D	SETS- POS	SETS- NEG
TCQ-C-AR	-								
TCQ-C-PC	.528**	-							
TCQ-C-LC	.560**	.270**	-						
TCQ-C-IE	.574**	.353**	.539**	-					
DASS-S	.286**	.083	.282**	.191*	-				
DASS-A	.264**	.157*	.244**	.111	.799**	-			
DASS-D	.291**	.151*	.335**	.192*	.745**	.699**	-		
SETS-POS	-.193*	-.011	-.323**	-.538**	-.137*	-.074	-.161*	-	
SETS-NEG	.539**	.486**	.242**	.307**	.037	.113	.065	-.046	-

TCQ-C= Treatment Concerns Questionnaire–Close Others; AR=Adverse Reactions, PC= Personal/Family Consequences, LC= Lack of Commitment, IE= Ineffectiveness; DASS= Depression, Anxiety, Stress Scales; DASS-S= Stress Scale, DASS-A= Anxiety Scale, DASS-D=Depression Scale; SETS-POS= Stanford Expectations for Treatment Scale, Positive



Expectations Subscale, SETS-NEG = Stanford Expectations for Treatment Scale, Negative Expectations Subscale. \* $p < .05$ , \*\* $p < .001$ .

## **Discussion**

The current study examined the psychometric properties of the TCQ-C. Exploratory factor analysis showed that the most parsimonious solution was a four-factor solution, yielding 4 subscales with good internal reliability and with small to moderate intercorrelations. These subscales reflect fears about treatment being ineffective, loved ones not fully committing to treatment, adverse reactions to treatment (e.g., increased symptoms) and personal consequences of treatment (e.g., changes in family dynamics). These four factors correspond well to the main themes that were derived in Study 2a, with changes in personality and family relationships being grouped together to make the ‘personal/family consequences’ subscale and concerns about symptoms increasing, hopelessness, and taking on others’ symptoms being grouped together to make the ‘adverse reactions’ subscale, the subscale that accounted for the most variance. Future research could continue the validation of this factor structure by using confirmatory factor analysis.

Many of these factors overlap with concerns clients themselves have about treatment as measured by the Treatment Ambivalence Questionnaire (TAQ; Rowa et al., 2014), a measure of client ambivalence for people with anxiety and related disorders. The TAQ contains subscales that reflect concerns about personal consequences (such as change in personality or relationships) and adverse reactions (such as an increase in anxiety or distress). Indeed, these concerns may reflect some truth: therapy can be distressing in the short term (especially exposure-based treatments; Thornton, 2017), treatment failure can lead to self-blame (Berk &

Parker, 2009), CBT for anxiety does not help everyone (Loerinc et al., 2015), and therapy sometimes leads to negative outcomes for families (Szapocznik & Prado, 2007). The TCQ-C can help assess when close others hold exaggerated or problematic treatment fears.

The TAQ and TCQ-C can be used together to understand where clients and/or close others hold obvious misunderstandings about therapy. Depending on what is endorsed on these measures, psychoeducation could include messages that CBT can be stressful in the short-term, but it often leads to a decrease in anxiety symptoms in the long-term; treatment can involve the development of coping strategies to help the client manage the additional stress that therapy can bring; and that therapists do not encourage clients to sever close, non-toxic relationships. Family mental health awareness efforts are associated with better outcomes for clients (e.g., reduced symptoms and relapse) and families (e.g., reduced family distress and friction) (Lucksted, McFarlane, Downing, & Dixon, 2012). In their review, these authors emphasized the need for family education efforts to be tailored; the TCQ-C could serve as an efficient and effective tool for doing so. Researchers, too, could use the TAQ and TCQ-C conjointly to study whether there is an association between specific concerns that close others endorse (on the TCQ-C) and those that anxiety sufferers endorse (on the TAQ). This may shed light on the origin and maintenance of beliefs/attitudes that impede treatment seeking behaviours.

Close others are worried about their loved ones' (lack of) commitment to treatment. Of the four factors, this factor showed the highest endorsement (highest average item score), whereas the personal consequences factor showed the lowest endorsement. At the same time, close others are optimistic about treatment, showing higher average positive expectations scores (mean=3.90, SD=1.23) than negative expectations scores (mean=3.07, SD=1.40) on the Stanford Expectations for Treatment Scale ( $t(280)=9.94, p<.001$ ; not reported above). If close others

themselves are invested in the success of treatment, it is reasonable that they may be concerned about whether their loved one is equally invested. Alternatively, endorsement of these items may reflect disappointment in the failure of previous treatments; after all, CBT for anxiety has clinically significant effects for about half of those who try it (Loerinc et al., 2015), and outside observers may be in search of an explanation for why it hasn't worked for their loved one. Attributing the negative outcomes in clients' lives to their own actions or characteristics is associated with criticism and hostility in relatives (Barrowclough & Hooley, 2003). Future research could explore whether the TCQ-C "Lack of Commitment" subscale is particularly related to levels of criticism observed in the family or reported by the person with anxiety. Should close others endorse these items, clinicians may want to explore the origins of these concerns, and gently assess for criticism and client ambivalence about treatment.

The construct validity of the TCQ-C was also explored. Evidence for convergent validity was seen in the TCQ-C subscales' correlations with a measure of treatment expectations. As expected, the strength of these correlations indicate that they are related, but not redundant concepts. One exception was that positive expectations did not significantly correlate with worries about the personal consequences of treatment. It appears that these concepts are unrelated, such that close others' beliefs that treatment will be effective are not related to how concerned they are about treatment impacting family dynamics. In contrast, less worry about a loved one's commitment or about the ineffectiveness of treatment is associated with more positive expectations for the outcomes of therapy. Given that hope and positive expectations are an important component of treatment success (for a recent meta-analysis, see Constantino, Visla, Coyne, & Boswell, 2018), the ineffectiveness subscale of the TCQ-C could be used to assess and address beliefs about treatment ineffectiveness in the early stages of treatment.

Evidence for discriminant validity lies in the small correlations seen between respondent distress and treatment ambivalence. Concerns about ineffectiveness of treatment and personal consequences of treatment seem to be especially unrelated to respondent distress. In contrast, concerns about adverse reactions to treatment and worries about lack of commitment showed a small relationship to depression scores ( $r_s=.291$  and  $.335$ , respectively), perhaps indicating that when a person is more depressed, there is a general pessimism about their loved one's ability to handle treatment.

A strength of this study is the diverse sampling techniques that were used, resulting in respondents from numerous countries, of different ages, and with a variety of relationships to the individual with anxiety. A limitation of this sample is that the majority of respondents and people with anxiety were White, limiting its generalizability to close others from other cultures and ethnicities. Traditions around family involvement in mental health (Chadda & Deb, 2013), stigma about mental illness (Papadopoulos, Foster, & Caldwell, 2013), and accessibility of treatment (Snowden & Yamada, 2005), vary across cultures; future work would benefit from conducting similar research in non-White samples. In addition, some respondents (17%) reported having no direct contact with the person with anxiety; however, it should be noted that this study was conducted from August 2020-November 2021, when many individuals were refraining from in-person contact with those outside their household due to the COVID-19 pandemic. Lastly, this sample represents people who believe their loved one has problematic, excessive, and/or significant anxiety; however, a formal assessment was not conducted to determine diagnostic information. Future research may aim to replicate the factor structure of this measure in samples of those from different cultures and with a known clinical diagnosis. This measure may also be

used to explore whether the type and strength of concerns differs as a function of the relationship to the client (e.g., parent versus romantic partner).

### **Study 2 General Discussion**

This series of studies represents the first attempt to systematically investigate the concerns that close others have about their adult loved ones starting treatment for anxiety. Although previous research has discussed the importance of family attitudes (e.g., Morrissey-Kane & Prinz, 1999), a measure of close other ambivalence had not previously been developed for adults with anxiety. In accordance with grounded theory principles (Chun Tie, Birks, & Francis, 2019), we elicited concerns by close others and used this qualitative information to develop a quantitative measure of their treatment ambivalence. The final measure, with 17 items total, had strong internal reliability, a stable four-factor structure, and evidence of construct validity.

Across studies, the majority of respondents were parents or romantic partners of sufferers, indicating that these may be the close others that are most involved and/or invested in a clients' mental health. Respondents in both studies had known the sufferer for many years (study 1 mean= 18.8 years, study 2 mean= 21.2 years) and the majority were living with the sufferer at the time of the study, which may be indicative of the close relationships between the respondents and the sufferers. Across studies, sufferers were mostly adults, with mean ages ranging from 32-36 years. The concerns investigated in these studies therefore apply mainly to adult sufferers with anxiety.

While the samples in the two studies were similar in many ways, they differed in that the first study sampled loved ones of those who were treatment-seeking, while the second study sampled close others of anyone with excessive anxiety (with varying treatment status).

Treatment concerns may be greater in a sample of those who are not awaiting treatment; on the other hand, treatment ambivalence may increase as a treatment start date approaches and the prospect of treatment becomes more “real” to close others. As Kushner and Sher (1991) write, different treatment fears may be relevant at different times throughout the help-seeking process. Some of the study two sufferers may be in different stages of therapy, while others may have no therapy experience at all. Close others of those with no therapy experience may have increased fears about lack of commitment. For example, on the open-ended item, some loved ones reported worries about the sufferer not being open to therapy, not seeing it as applicable to them, or “not taking it seriously”. For close others to people who are in therapy (22% of the study two sample), concerns about personal consequences may be more relevant, and concerns about ineffectiveness and adverse consequences may vary depending on the close other’s perception of the sufferer’s progress. Future research may seek to compare the responses of close others whose loved ones are in different stages of treatment seeking.

Whether or not close others are involved in treatment, their attitudes could impact the client’s motivation and treatment outcomes. Thus, assessing for close others’ attitudes could be a useful part of the intake process or as a mid-therapy assessment should the expected progress not be observed. This information can then be used to discuss with the client the impact of their close others’ attitudes or to consider offering close others a psychoeducation session before proceeding with treatment. Therapists can also use the TCQ-C as a tool to assess and address attitudes in preparation for joint therapy sessions with close others or when considering transitioning from individual to family therapy. Future research may explore whether close others’ concerns about treatment are related to rates of treatment-seeking in those with anxiety and whether TCQ-C scores predict treatment adherence, drop-out, or outcomes once the client has entered treatment.

### **Study 3: Criticism and Accommodation are Associated with Negative Treatment Attitudes in Close Others to those with Anxiety**

Psychological approaches to treating anxiety and related disorders are effective (e.g., Otte, 2011), and yet only a minority of those with anxiety seek treatment (Rones, Mykletun, & Dahl, 2005). Family and friends shape many aspects of one's day-to-day life, including mental well-being. Social networks influence our understanding of our difficulties and our choices in how to handle them (Pescosolido, 1992). People with mental health difficulties commonly consult family members before health care professionals about mental health care decisions (Henshaw, Sabourin, Warning, 2013; Maria Bermúdez, Kirkpatrick, Hecker, & Torres-Robles, 2010) and are sensitive to their family members' treatment attitudes and beliefs (Leaf, Livingston Bruce, & Tischler, 1986; Earnshaw, Smith, Copenhaver, 2013). Thus, family members, close friends, and romantic partners (that is, "close others") can be highly influential in treatment decisions.

Close others are often supportive of therapy efforts (e.g., Chavira, Stein, Bailey, & Stein, 2003). However, Merritt, Rowa, and Purdon (2022) found that they also report concerns about their loved one starting treatment, such as concerns that treatment may have a negative impact on their relationship with their loved one and/or on their personality, and that the person with anxiety may not be able to handle treatment and become worse. Family members, friends, and romantic partners who have had negative experiences with therapy themselves or whose culture is less supportive of psychological treatment may influence the person with anxiety to be more treatment-negative (Corrigan, Druss, & Perlick, 2014). In a student sample of those with mental health problems, perceived stigma from close others was associated with self-stigma, self-reliance, and reduced treatment seeking behaviours (Jennings et al., 2015). In younger samples,

family beliefs about mental health problems (e.g., as dispositional) and about therapy (e.g., as inconvenient, demanding, irrelevant) are associated with worse treatment outcomes and higher treatment dropout (Morrissey-Kane & Prinz, 1999). Thus, the treatment beliefs of close others can influence the direction and success of one's wellness efforts. In addition, it is increasingly recommended that close others of both adults (Chambless, 2012) and children (Creswell & Cartwright-Hatton, 2007) are included in treatment for anxiety, and the inclusion of close others often adds additional benefit for the client (Barrett, Dadds, & Rapee, 1996; Creswell & Cartwright-Hatton, 2007; Mehta, 1990; Wood, Piacentini, Southam-Gerow, Chu, & Signman, 2006, but see also Peris, Thamrin, & Rozenman, 2021). Although much of the literature focuses on family-inclusive treatments for children, studies of adults show similar effect sizes (Thompson-Hollands, Edson, Tompson, & Comer, 2014). Given the value in including close others in treatment and their potential impact, it is important to learn more about close others' treatment attitudes.

### **Correlates of Close Others' Treatment Concerns**

We know very little about the correlates of treatment concerns in those close to people with anxiety. Studies exploring this topic have focused on parent beliefs about childhood anxiety. Chavira, Murray, Kelly, and Martin (2003) asked parents to imagine that they had a child with social anxiety and to report on their treatment attitudes. Parents reported more favourable attitudes towards counseling than medication. Parents who reported a history of emotional problems themselves, and whose children had attended therapy in the past, were more positive about counselling. In a survey of parents of children with anxiety disorders, Brown, Deacon, Abramowitz, Dammann, and Whiteside (2007) found again that therapy (cognitive-behavioural therapy specifically) was seen as more acceptable than medication. In contrast to



Chavira and colleagues, however, this study showed no effect of child treatment history on parent perceptions of therapy.

A large body of research has found that family member criticism is associated with greater severity of anxiety symptoms and improvements in criticism are associated with symptom improvement (Amir, Freshman, & Foa, 2000; Chambless, Bryan, Aiken, Steketee, Hooley, 2001; Kagan, Frank, & Kendall, 2017; Malivoire, Rowa, Milosevic, & McCabe, under review); Renshaw, Chambless, & Steketee, 2003; Settapani & Kendall, 2017; Shimshoni, Shrinivasa, Cherian, & Lebowitz, 2019; van Noppen & Steketee, 2008). Family members may be hostile towards or critical of their loved one because they believe it will help change their behaviour (Chambless, Bryan, Aiken, Steketee, & Hooley, 1999) or because they are frustrated with the anxiety and the restricted functioning that it causes. In fact, criticism is associated with higher levels of stress (Steketee, Lam, Chambless, Rodebaugh, & McCullough, 2007) and internalizing symptoms (Chambless et al., 2001; Low & Stocker, 2005; Renshaw, Steketee, and Chambless, 2005). Family members who are high in hostility tend to believe that their loved one can/should be better able to control and overcome their symptoms (Renshaw, Chambless, & Thorgusen, 2017; Van Noppen & Steketee, 2009) and that they bear responsibility for their symptoms (Renshaw, Chambless, & Steketee, 2006). That is, close others who are critical are more likely to believe that anxiety is under the control of the person who experiences it, rather than being an illness (Barrowclough & Hooley, 2003). This could potentially foster a negative attitude about the loved one seeking treatment.

Most people close to someone with an anxiety or related disorder also accommodate their symptoms, through participation in symptoms (e.g., helping them avoid something they fear) and/or modification of routines and responsibilities (Lebowitz, Scharfstein, & Jones, 2015;

Lebowitz et al., 2013; van Noppen & Steketee, 2009). Although many studies focus on parental accommodation in pediatric anxiety (e.g., Storch et al., 2007), accommodation of adults with anxiety is also well-documented (Boeding et al., 2013; Calvocoressi et al., 1995; Cherian et al., 2014; Joogoolsingh, Wu, Lewin, & Storch, 2013; Torres et al., 2012). Close others may engage in accommodation to reduce their loved one's distress (Storch et al., 2007) or reduce their own anxiety (Kerns, Pincus, McLaughlin, & Comer, 2015), or due to beliefs that anxiety is harmful (Feinberg et al., 2018; Settiani & Kendall, 2015), or beliefs that their loved one will not be able to manage the anxiety. Given the beliefs associated with accommodation, close others who accommodate may believe that exposure-based intervention will prove too distressing for the person with anxiety. This is consistent with Selles et al. (2017) who found that parent accommodation of their children's symptoms was associated with their treatment worries (Selles et al., 2017). This hypothesis is also consistent with Merritt, Rowa, and Purdon's (2022) finding that those close to adults with anxiety often express concern about treatment being too difficult for their loved ones. At the same time, though, high levels of accommodation may be associated with family member stress, burden, and burn out (Amir, Freshman and Foa, 2000; Calvocoressi et al., 1995; Lee et al., 2015), in addition to family disruption and interference (Cooper, 1996), and therefore may result in encouragement of treatment seeking.

### **Study Aims and Hypotheses**

Given that criticism and accommodation may be indicative of underlying beliefs about the person with anxiety and their ability to handle distress, there is reason to hypothesize that these factors may be related to close others' attitudes about a loved one seeking anxiety treatment. To date, no research has directly examined this hypothesis in close others of adults with anxiety. The goal of the current study was to examine the extent to which close others'

criticism and accommodation is associated with their treatment concerns, while controlling for respondents' (that is, close others') therapy history and the therapy history of the person with anxiety. To this end, a community sample of people who self-reported having a loved one with problematic and/or excessive anxiety completed self-report measures of criticism/hostility, accommodation, and treatment concerns, as well as reporting on their own therapy history and that of their loved ones.

Criticism by family members, friends, and romantic partners may be associated with the belief that their loved can and should be able to control their symptoms, and the subsequent view that treatment is unnecessary. Thus, we hypothesized that higher criticism would predict greater treatment concerns. Symptom accommodation may arise from the belief that the person with anxiety is fragile. On the other hand, accommodation can be exhausting and time-consuming, and treatment may thus be viewed as a welcome transfer of burden, permission not to accommodate, and hope of greater freedom. Thus, we predicted that accommodation would be associated with treatment concerns, but were agnostic about the direction of this relationship. We expected that these factors would predict treatment concerns even when controlling for therapy history (that is, whether the close other and/or the person with anxiety had had previous treatment). These findings will be of value to clinicians designing family education campaigns, working with clients where family concerns about treatment are prominent, or considering treatment that involves family members.

## **Methods**

### **Procedure**

The sample of close others of adults with anxiety was recruited from an outpatient anxiety clinic, a university student population, a pool of community members willing to

participate in anxiety research, posters in the community, and Amazon Mechanical Turk (“MTurk”). Participants were eligible if they were over 18 years of age, able to read and understand English, and self-reported having a loved one with significant symptoms of an anxiety or related disorder for at least 6 months. This same sample was used in a previous study in which we established the psychometrics and validity of the Treatment Concerns Questionnaire – Close Others (TCQ-C; Merritt, Rowa, and Purdon, 2022).

In appreciation of their time, students ( $n=71$ ) received course credit, MTurk participants ( $n=225$ ) received a small monetary compensation, and all others ( $n=61$ ) were entered into a draw to win a gift card. After consenting to participate, participants reviewed a brief description of CBT and completed questions about demographics as well as the study questionnaires. Participants reported on questions about their loved one’s anxiety (e.g., duration, previous diagnoses) and their perception of its severity (“As far as you know, how much does your loved one’s anxiety get in the way of their daily life/daily activities?”, with response options “it doesn’t, to a small degree, to a moderate degree, and to a great degree). They also indicated whether the person with anxiety had ever attended therapy for their anxiety (yes/no/unsure) and whether they themselves had ever attended therapy (yes/no). Finally, participants completed measures about their own anxiety and their treatment expectations, which were used to establish the psychometrics of the TCQ-C and are presented elsewhere (Merritt, Rowa, and Purdon, 2022).

Data were collected online via Qualtrics. Nine attention checks were interspersed throughout the survey: four directed queries (e.g., “Please select option 3”), one logical statement (“Alice looked for her friend Jade in the crowd. Since she always wears a red hat, Alice spotted her quickly. Who always wears a red hat?”), one memory recall question (“Think back to information you just reviewed on CBT. What does the “B” in CBT focus on?”), and three

honesty checks (e.g., “Please indicate how much care you took while completing this survey”) (Abbey & Meloy, 2017).

**Participants**

Demographic information about the participants and their loved ones with anxiety is presented in Table 9. Participants self-identified as being close to an adult with anxiety, including a partner/spouse ( $n=79$ , 27.5%), parent ( $n=67$ , 23.3%), sibling ( $n=61$ , 21.3%) or adult child ( $n=45$ , 15.7%) of the person with anxiety. The remaining respondents were a grandparent, aunt/uncle, cousin, grandchild, close friend, or niece of the person with anxiety (all  $ns < 9$ ). On average, respondents knew the person with anxiety for 21.2 years ( $SD=12.9$ ) and most ( $n= 257$ , 89.5%) had lived with them at some point in their lives. Many ( $n=164$ , 57.1%) were living with their loved one at the time of participation. Respondents were in frequent direct (i.e., face-to-face;  $\mu= 30.5$  hours/week,  $SD=33.0$ , range=0-120) and indirect (i.e., text, call, etc.;  $\mu= 8.9$  hours/week,  $SD=16.0$ , range=0-112) contact with the person with anxiety.

The majority of respondents were living in North America ( $n=276$ , 96.2%) at the time of participation, with only 11 living elsewhere (Barbados, China, Egypt, India). The majority of their loved ones with anxiety were also living in North America ( $n=275$ , 95.8%), with 12 living elsewhere (China, Egypt, France, Germany, India, South Korea). The average duration of the loved one’s anxiety difficulties was 15.8 years ( $SD=14.7$ ) and was impairing to a small ( $n=112$ , 39%), moderate ( $n=110$ , 38.3%), or great ( $n=42$ , 14.6%) degree. Most loved ones ( $n=180$ , 62%) had received a diagnosis for their anxiety and just over half ( $n=158$ , 55.1%) had attended therapy for their anxiety at some point.

*Table 9. Study 3 Demographic Information*

	Respondent	Person with Anxiety
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(Close Others, n=287)		
Age (years)		
Mean	35.8	36.9
Standard Deviation	13.2	17.7
Gender, n (%)		
Male	94 (32.8%)	114 (39.7%)
Female	188 (65.5%)	164 (57.1%)
Gender non-binary, gender non-conforming	3 (1.0%)	7 (2.4%)
Declined to answer	1 (0.3%)	2 (0.7%)
Ethnicity, n (%)		
White	200 (69.7%)	195 (67.9%)
East Asian	21 (7.3%)	16 (5.6%)
South Asian	18 (6.3%)	20 (7.0%)
Black/African American	14 (4.9%)	15 (5.2%)
Other	34 (11.8%)	41 (14.3%)
Highest level of education, n (%)		
High school or less	39 (13.6%)	89 (31.0%)
Some or completed university/college degree	203 (70.7%)	144 (50.2%)
Some or completed graduate degree	41 (14.3%)	45 (15.7%)
Other or declined to answer	4 (1.4%)	9 (3.1%)

*Note: this sample and table is the same as that in Study 2B.*

## Measures

*Treatment Concerns Questionnaire – Close Others (TCQ-C; Merritt, Rowa, and Purdon, 2022).* Treatment concerns were measured using the TCQ-C, a 17-item scale with four subscales: adverse reactions (AR), personal/family consequences (PC), lack of commitment (LC), and

ineffectiveness (IE), each with strong internal consistency. This measure was based on a qualitative survey of the concerns of close others of those seeking treatment for anxiety, as per Rowa et al. (2014). For each item (e.g., “treatment will be overwhelming for my loved one”), respondents rate how much they agree with the statement on a 7-point scale from “strongly disagree” to “strongly agree”; higher scores represent higher ambivalence (more worries) about treatment. The measure shows good convergent and discriminant validity. In the current study, the total scale score (Cronbach’s alpha,  $\alpha = .91$ ) was used to represent degree of treatment concern.

*Family Attitude Scale (FAS; Kavanagh et al., 1997).* The FAS is a 30-item scale measuring self-reported feelings of hostility or criticism towards a family member. For this study, scale items were modified to replace “him” with the gender-neutral “them” throughout (e.g., “I find myself saying nasty or sarcastic things to them”). Each item is scored on a 0 (“never”) to 4 (“every day”) scale, with higher scores representing higher levels of criticism. The FAS shows high internal consistency, inter-rater agreement, and convergent validity, with significant correlations between FAS scores and observed criticism and hostility on the Camberwell Family Interview (Vaughn and Leff, 1976, as cited by Kavanagh et al., 1997 and Fujita et al, 2002). More recently, FAS scores have been shown to be predictive of treatment relapse in those with psychosis (Kavanagh et al., 2008). In the current sample, the internal consistency of this scale was excellent ( $\alpha = .95$ ).

*Family Accommodation Scale – Anxiety (FASA; Lebowitz et al., 2013).* This scale includes 9 items, five of which make up the Participation subscale (e.g., reassurance, assistance, avoidance) and 4 of which make up the Modification subscale (e.g., modifying routines, removing responsibilities); additionally, it includes four items that assess distress and

impairment, but which are not included in the total score. The FASA shows high internal consistency as well as convergent and divergent validity in clinical settings. The original FASA was administered only to parents and thus items use the word “child” throughout; for the purpose of this study, “child” was changed to “family member”, with permission from the original author (E. Lebowitz, personal correspondence, May 22, 2020). Participants were instructed to report on their loved one with anxiety. For the purpose of this measure, we refer to them as their “family member” but note they could be a close other who was not a family member. In this study, the total accommodation score ( $\alpha=.90$ ) was used, with higher scores representing more accommodation.

### **Data Preparation and Analytic Plan**

We first examined the data quality. We detected 4 participants that were indicated to be bots (based on Qualtrics’ reCAPTCHA) or duplicates (based on Qualtrics’ RelevantID score), and their data was deleted. A total of 18 respondents failed more than one attention check and their data was deleted. Two participants reported on themselves rather than a loved one with anxiety and their data was removed from analyses. Eighteen participants were removed due to having unreasonably low duration to complete the survey (outliers with less than 500s total). Finally, 28 participants were removed from analyses because they completed less than half of the survey. This left a final sample of 287 participants.

To determine whether there were quantitative differences on main variables of interest across samples, a multivariate ANOVA on treatment ambivalence, accommodation, and criticism was conducted, which indicated there were no significant differences based on the source of the sample ( $F(3, 271)=1.013, p=.416$ , Wilk's  $\Lambda=.978$ , partial  $\eta^2=.011$ ). Thus, data from all recruitment sources were combined. There were also no group differences on the proportion



of types of relationship represented (Kruskall-Wallis test,  $H(2)=3.170$ ,  $p=.205$ ) nor amount of direct or indirect contact (MANOVA,  $F(6, 562)=.033$ ,  $p=.145$ , Wilk's  $\Lambda=.967$ , partial  $\eta^2=.017$ ). However, a significant group difference did arise for anxiety impairment, Kruskal-Wallis test,  $H(2)=12.392$ ,  $p=.002$ , with the MTurk group skewing less impaired; thus, we opted to control for anxiety impairment in addition to treatment history in our main regression.

Prior to analyses, data were screened for outliers by examining Z-scores and box plots; values that were 3 or more standard deviations from the mean and that were discontinuous from the distribution ( $n=2$ ) were replaced with the respondent's subscale mean value, provided that the respondent had completed 80% or more of the items on that subscale. Missing items ( $n_{FAS}=9$ ,  $n_{FASA}=5$ ,  $n_{TCQ-C}=8$ ) were also replaced with the respondent's subscale mean value, provided that the respondent had completed 80% or more of the items on that subscale. Skew and kurtosis were within acceptable limits (Kline, 1998; see Table 2).

To address our main research questions about the relationship between criticism, accommodation, and close others' treatment concerns, we conducted a hierarchical multiple regression. To control for treatment history and anxiety impairment, we entered these variables on the first step, with criticism and accommodation on the second step. We also included the interaction term on the third step; although greater accommodation might be associated with greater criticism (that is, the more people accommodate the more critical they become), it is also possible that greater criticism may be associated with less accommodation (that is, people who are highly critical may refuse to accommodate).

## Results

We hypothesized that criticism and accommodation would be significantly associated with close others' treatment concerns after controlling for treatment history in the respondent and the person with anxiety. We expected that higher criticism would be associated with greater treatment ambivalence in close others, but were agnostic about the direction of the relationship for accommodation.

Preliminary analyses revealed that criticism and accommodation both showed small to moderate positive correlations with total treatment concerns, with subscale correlations ranging from non-significant (e.g., between accommodation and Personal/Family Consequences, Ineffectiveness subscales) to moderate (e.g., between criticism and Lack of Commitment subscale) (see Table 10).

In our model (see Table 11), neither therapy experience of the person with anxiety nor the respondent were significant predictors of treatment attitudes. Perceived impairment due to anxiety was a significant predictor. In addition, controlling for the above-mentioned variables, there was a significant main effect for the relational predictors. Consistent with our hypothesis, greater criticism predicted greater treatment concerns. Additionally, greater accommodation was also associated with greater treatment concern. This step showed a medium effect size ( $f^2=0.115$ ). The interaction term was not significant.

Exploratory analyses show that criticism and accommodation remain significant predictors of treatment concern even when controlling for age and gender of the close other and the person with anxiety, as well as the nature of their relationship.

Table 10. Descriptive statistics and correlations

	Descriptive Statistics				Correlations						
	<i>N</i>	<i>Mean (SD)</i>	<i>Skew</i>	<i>Kurtosis</i>	<i>TC<sub>T</sub></i>	<i>TC<sub>AR</sub></i>	<i>TC<sub>PC</sub></i>	<i>TC<sub>LC</sub></i>	<i>TC<sub>IE</sub></i>	<i>CRIT</i>	<i>ACC</i>
Treatment Concerns, total score (TC <sub>T</sub> )	281	58.69 (19.27)	-.03	-.40	-						
Adverse reactions (TC <sub>AR</sub> )	281	22.13 (8.42)	-.02	-.66	.90**	-					
Personal/family consequences (TC <sub>PC</sub> )	281	9.21 (4.79)	1.04	.72	.66**	.53**	-				
Lack of commitment (TC <sub>LC</sub> )	281	16.36 (6.60)	-.25	-.96	.78**	.56**	.27**	-			
Ineffectiveness (TC <sub>IE</sub> )	281	10.98 (4.54)	.10	-.88	.76**	.57**	.35**	.54**	-		
Criticism (CRIT)	279	34.85 (21.43)	.56	-.40	.33**	.17**	.22**	.42**	.23**	-	
Accommodation (ACC)	276	12.02 (7.75)	.88	.55	.20**	.21**	.07	.21**	.08	.21**	-

Note: TC= treatment concerns. \*\* $p < .01$

Table 11. Regression on treatment ambivalence

Step	Predictors	R <sup>2</sup>	R <sup>2</sup> change	F change	β
1	RESP_TH	.034	.034	3.228*	.007
	ANX_TH				.052
	ANX_IMP				.194*
2	CRIT	.134	.100	15.510**	.281**
	ACC				.126*
3	CRITxACC	.134	<.001	.004	-.010

Note: RESP\_TH=respondent therapy history; ANX\_TH=therapy history of person with anxiety;

ANX\_IMP=perceived impairment due to anxiety; ACC= accommodation; CRIT= criticism

\*  $p < .05$ , \*\*  $p < .01$ .

## Discussion

The purpose of this study was to explore the relationship between self-reported criticism and accommodation and treatment concerns in close others of those with notable anxiety. As hypothesized, greater criticism predicted greater treatment concern. This is consistent with the idea that those who are critical of their loved one may also believe that their anxiety is within their control (as in Renshaw, Chambless, & Thorgusen, 2017), or that the person is “weak not sick” and should just do things such as “have a few drinks to forget [their] troubles” (Yap et al., 2011, p. 475). The treatment concern subscale that was most related to criticism was “Lack of Commitment” ( $r_{LC-AMB}=.416$ ; next strongest correlation being  $r_{IE-AMB}=.234$ ;  $z=3.385$ ,  $p<.01$ ), supporting the notion that close others who are critical of their loved one are also critical of their commitment to their wellness efforts.

We also found that greater accommodation was associated with greater treatment concern. This is consistent with the idea that accommodation stems from overprotection and intrusion (e.g., McLeod, Wood, & Weisz, 2007), and reflects the belief that those with anxiety are fragile and in need of protection. It is also consistent with Selles and colleagues’ (2017) finding that accommodation is positively related to parent treatment concerns. Close others who see their loved ones as fragile may be more likely to worry about their ability to succeed in treatment, especially considering that effective treatment often involves facing one’s fears. Consistent with this, the “Adverse Reactions” and “Lack of Commitment” scales showed the strongest correlations with accommodation. It is also plausible that treatment attitudes influence how close others interact with their loved one. For example, someone who believes that treatment is not a good option for their loved one may criticize or accommodate as alternative ways to support their loved one or change their behaviour. Future work may assess this

hypothesis. It may also be of interest to determine whether these relationships are influenced by the amount and nature of contact between close others and the person with anxiety.

Neither respondent therapy history nor client therapy history were significantly associated with treatment concerns in this sample. This is consistent with Brown and colleagues (2007) findings with respect to child treatment history, but not with Chavira and colleagues (2003) who found that both parent history of emotional problems and child history of counselling were related to treatment beliefs. However, Chavira and colleagues asked parents about their treatment perceptions should they *hypothetically* have a child with anxiety. When close others are considering a real loved one with anxiety, they may have more information on which to base their treatment beliefs (e.g., knowledge of the individual and their disorder); however, when the scenario is hypothetical, treatment history (both parent and child) may be weighted more heavily when considering treatment options. Future research may find value in assessing respondents' perceptions of past therapy.

Given the difference between recruitment sources on perceived impairment due to anxiety, we also opted to enter impairment into the regression analysis. We found that perceived impairment showed a significant relationship with treatment concerns of close others. This is consistent with some findings from the pediatric anxiety literature (Selles et al., 2017), although others show a null effect (Brown et al., 2007). As impairment from anxiety increases, close others may worry that it will get in the way of attending or committing to treatment, or that treatment will not be potent enough to be effective.

### **Limitations**

This study was cross-sectional and cannot speak to causation. A further limitation of our study was the use of self-report measures. Although almost two-thirds of participants reported

that their loved one had received a diagnosis of an anxiety disorder, we did not assess those with anxiety, so it is possible that their report of their loved ones' diagnostic status/degree of anxiety are incorrect or dated. In addition, self-report data is subject to bias and actual levels of criticism and accommodation were not measured. Finally, our sample was moderate in size and comprised a subset of the sample on which we validated the TCQ-C. Our data may thus reflect sample-specific characteristics and replication in another sample is required. Given that the nature of interpersonal relationships (Cheung, van de Vijver, & Leong, 2011) and treatment attitudes (Kushner & Sher, 1989, 1991) are likely to be culturally influenced, replication in a more culturally diverse sample would be of great value.

### **Implications**

Despite these limitations, these preliminary findings offer a compelling basis for continued study of the orientation of close others towards their loved ones seeking treatment. Although researchers discuss the importance of addressing criticism and accommodation in family members of people with obsessive-compulsive disorder (Renshaw, Steketee, & Chambless, 2005) and anxiety disorders (Chambless, 2012), close others who criticize and/or accommodate may have greater ambivalence about participating in this treatment, and may overtly or subtly discourage their loved one from seeking treatment. Furthermore, treatments for anxiety and related disorders tend to be exposure-based, which means the client will likely conduct critically important aspects of treatment in the heart of their social environment. In future work it would be useful to examine the extent to which close others' fear about their loved one starting treatment is associated with treatment seeking, refusal, drop out, and success for the person with anxiety.

In sum, our findings suggest that there is an important relationship between close others' criticism and accommodation and their concerns about their loved ones starting CBT. Given that close others have the potential to impact clients' own treatment ambivalence, clinicians may find merit in asking ambivalent clients about the impact of their social network on their beliefs about treatment. This could provide an additional avenue for understanding and validating treatment concerns and moving toward a resolution. This research provides additional support for the practice of addressing critical and accommodating behaviours in close others. If close others are being considered for treatment involvement, it may be important to devote extra time to their treatment concerns, offering validation and psychoeducation to correct any misunderstandings about anxiety development and treatment. Ultimately, people with anxiety will end their relationship with their therapist and return to the context of their social network. Thus, working collaboratively with the client and their important others could result in longer-lasting improvements through reducing unhelpful reactions to anxiety and improving compassion and communication.



## General Discussion

### Summary of Findings

This series of studies examined the impact of the social system on treatment attitudes. While previous research pointed to the importance of close others in treatment decisions, anxiety symptoms, and treatment outcomes, it had not to our knowledge investigated the role of treatment attitudes in this process. We examined this topic from the perspective of anxiety sufferers themselves as well as from the perspective of their loved ones. We found that close others' criticism and accommodation was positively related to treatment concerns in those with anxiety. After developing a reliable and valid measure of close others' treatment concerns, we found a parallel finding for close others: self-reported criticism and accommodation are positively related to close others' treatment concerns. These variables remained important even when sample type, treatment history, relationship type, and demographic variables were controlled for. Previous research details the adverse effects of criticism and accommodation on anxiety and its treatment; this work serves to add to the literature about the deleterious effects of these behaviours. Close others may be critical in an attempt to encourage change, and/or accommodating in an attempt to reduce distress; yet, these behaviours likely steer sufferers away from therapy, one of the more effective ways to achieve both of these goals.

Interestingly, therapy history was a significant correlate of treatment concerns in those with anxiety, while it was not a significant correlate of treatment concerns in close others. This difference may lie in the types of information each party has when forming an opinion about therapy. Anxiety sufferers who have undergone therapy themselves have the most information about treatment (i.e., a more complete picture about perceived benefits and challenges); thus, it makes sense that treatment history and treatment concerns would be closely related in this

population. For close others, however, merely knowing whether one's loved one has undergone previous treatment (or having undergone treatment themselves) does not provide the same richness of information. They may still have questions about the effectiveness of therapy for their loved one, the potential adverse reactions they may experience, and how committed their loved one was to past treatment/will be in future treatment.

While both criticism and accommodation were significantly correlated with treatment attitudes, perceived criticism (as reported by sufferers) and feelings of hostility (as reported by close others) are more strongly related to treatment fears than reported accommodation. It is possible that in some families, the pattern of critical communication has existed longer than the pattern of accommodation (for example, perceived criticism may be a risk factor for an anxiety disorder, whereas accommodation may be a reaction to it), leading to stronger accumulated effects of criticism. Alternatively, criticism may be a more direct measure of a core underlying factor, such as negative evaluation of the sufferer, whereas accommodation is one way that such a negative evaluation can present (see general introduction for a review of attributions underlying criticism and accommodation). Negative evaluation as being at the core of both criticism and accommodation may explain why, despite sometimes being conceptualized as opposite behaviours, these variables are commonly found to be correlated (Van Noppen & Livingston, 2003). Negative evaluation of the sufferer could also lie at the heart of treatment concerns. Sufferers who are criticized or accommodated may begin to believe such evaluations and judge their chances of therapy success accordingly. Close others who engage in criticism or accommodation may do so based on negative evaluations and may use this same information as the basis on which to judge the sufferer's chances of therapy success. Research shows that parental negative evaluation is associated with shame in children (Alessandri & Lewis, 1993),

and shame is associated with more negative attitudes towards seeking professional help for mental health (Rüsch et al., 2014). Research on romantic relationships points to the importance of negative evaluation in this domain as well (e.g., Weiss, 1980), such that negative evaluation of a partner can serve as a perceptual filter through which a partner's behaviour is interpreted (Hawkins, Carrère, & Gottman, 2002). While it is theorized that negative evaluation may lie at the core of unhelpful behaviours by close others, it could be difficult for clinicians (and perhaps even researchers) to assess for negative perceptions of the sufferer. Thus, behaviours such as accommodation and criticism remain important indicators for clinicians to pay attention to.

### **Limitations**

This series of studies are the first of their kind and should thus be regarded as preliminary. Given that CBT is a leading treatment for anxiety, we focused on perceptions of CBT; future research may explore whether criticism and accommodation are significantly associated with treatment perceptions more broadly. While Study 2 surveyed close others of those who were entering CBT for anxiety, studies 1 and 3 asked sufferers and close others (respectively) to imagine that the sufferer was entering CBT for anxiety and to report on treatment concerns. Thus, these studies use self-report ratings in response to the participant imagining a hypothetical scenario. Future research may explore whether criticism and accommodation remain significant predictors of treatment concerns for people who are awaiting therapy commencement.

The samples used in these studies were primarily White and North American, with the majority of participants being female and reporting on anxiety of mild to moderate intensity. Treatment attitudes may vary should any of these variables change. As discussed in Study 2, treatment attitudes are culturally influenced and there are gender differences in perceived stigma

around mental health treatment, with men being more reluctant to seek help (Deane & Chamberlain, 1994; Wendt & Shafer, 2016). In addition, treatment attitudes may vary depending on severity of anxiety concern; for example, close others of someone who is extremely debilitated by anxiety may have increased concerns about whether treatment will be effective for a more severe presentation. Future research may examine whether treatment concerns vary as a function of anxiety severity, and whether the relationships between accommodation, criticism, and treatment fears in close others and sufferers replicate when a more diverse sample is used.

Since the Treatment Concerns Questionnaire – Close Others (TCQ-C) is newly developed and validated, more work needs to be done to establish the utility of such a measure. For example, reliability may be further explored through investigating test-retest reliability. It is not expected that scores would be similar before, during, and after a course of therapy; however, TCQ-C could be administered multiple times within one of these phases. For example, the measure may be administered at monthly intervals for someone who is not considering therapy (i.e., in the precontemplation stage) or weekly intervals while the sufferer is awaiting therapy. The predictive validity of the measure could be analyzed by examining associations with important treatment variables, such as help-seeking, adherence, and outcomes. Because there is no “gold standard” measure (of which we are aware) of close others’ treatment concerns, it is difficult to establish concurrent validity at this time.

This measure performed well when used for research purposes in Study 3; future work may examine whether it provides utility in a clinical context and whether its use would be seen as valuable and acceptable to clinicians and respondents. The bottom-up approach employed to create this measure serves as a strength in that the items reflect the true concerns of close others, rather than those hypothesized by researchers. The TCQ-C could continue to serve as a way to

allow the voices of close others to be heard and could be a path through which close others can be engaged in the treatment process. In Study 2, close others actively used the open-ended form to share additional thoughts about their loved one entering treatment, indicating a great degree of involvement with and concern for the sufferer. Although the measure was intended to focus on psychological treatment fears, some respondents used this form to indicate practical concerns about treatment (e.g., time and money). While an existing item (“Treatment will be a waste of time and/or money”) shows some overlap with these concerns, it does not recognize that even if treatment works (and is not a “waste”), it is a significant use of resources. These and other concerns that close others endorse on the TCQ-C may be useful for clinicians to validate.

### **Addressing Ambivalence in Close Others**

Given that close others are often involved in care decisions and that anxiety sufferers will likely remain in their social context throughout anxiety treatment, it is predicted that close others’ treatment fears will be associated with treatment reluctance and poorer outcomes for those with anxiety. In their discussion of “wise interventions”, Walton and Wilson (2018) suggest that lasting improvements can only be made to one part of a social system if the other aspects of the system are made to align with the proposed change. In addition, families often feel ignored or misunderstood by mental health care professionals, and seek inclusion in care for their own sake, as well as that of the sufferer (Weimand, Hedelin, Hall-Lord, & Sällström, 2011). As such, understanding and addressing close others’ treatment concerns may be meaningful for the loved ones in addition to creating lasting change for those with anxiety.

Close others who feel ambivalent about their loved one entering treatment may benefit from group or individual interventions aimed at validating and addressing their concerns and answering their questions. Group intervention involving the sharing of concerns among group

members may serve to normalize the frequency, intensity, and variety of concerns close others hold. Given the variety in relationships seen in this series of studies, any systems-based approach should be inclusive in its advertising (e.g., using the language of “loved one” or “close other” rather than “family member”) and the content should be applicable to parents, romantic partners, relatives, and close friends. Individual interventions may take the form of one or more joint sessions with the clients with the same aims as the group intervention. Clinicians may work with the client to select which close other(s) would be best to involve. Clinicians may ask clients about who is most involved in their anxiety, who is most emotionally important to them, and/or whose behaviour and beliefs impacts their lives most.

The TCQ-C could serve several functions in this process. It may be administered to close others prior to involvement to initiate introspection and with the aim of personalizing sessions to address the most relevant concerns to the individual or group. Concerns that are strongly endorsed (i.e., scoring a 5, 6, or 7 on the Likert scale) may warrant discussion about how these beliefs impact the client as well as the loved one’s behaviour. In individual sessions, the client may chime in with reactions (i.e., how it feels to hear the loved one’s concerns) with the aim of increasing awareness and collaboration. It will be important to balance validating loved ones’ concerns while providing hope; psycho-education about the nature of therapy may be useful in this regard. For example, therapists can reassure loved ones that therapists do not intend to lay blame on family members for anxiety (Renshaw, Steketee, & Chambless, 2005), but rather, that treatment can be seen as a collaborative team approach to address maintaining factors. Regarding concerns about a lack of commitment to therapy, it could be fruitful to communicate to both clients and loved ones that part of treatment may involve exploring motivations for change. Other treatment concerns (e.g., worries about treatment being ineffective or resulting in adverse

consequences) may subside with time as close others see positive changes in their loved one's anxiety; therapists may choose to provide validation, introduce the concept of tolerating the uncertainty of the process, and facilitate discussion about ways that loved ones can help support the client's success in treatment.

The very existence of these sessions could provide hope to loved ones that therapists take treatment concerns seriously and that one's social circle is seen as vitally important to the process. While it is important for therapists to be clear that the anxiety sufferer is the primary client, these sessions can open the door for loved ones to feel involved, which could lead to their being more supportive of the therapist, client, and treatment as a whole. Indeed, even brief educational family interventions can lead to an increase in family member readiness for change (Bradshaw et al., 2016). Loved ones who harbour very negative treatment attitudes may be invited to an introductory phone or video meeting with the therapist prior to more extensive involvement to establish trust and answer any initial questions (e.g., about confidentiality, therapist credentials; Kushner & Sher, 1991). This can also make it easier to involve close others later in treatment, should treatment interfering behaviours like criticism and accommodation become evident.

### **Addressing Criticism and Accommodation**

Extensive research shows that criticism and accommodation are associated with increased anxiety severity and poorer treatment outcomes. The current research points to a potential avenue by which these behaviours may impact the anxiety sufferer: through their association with more negative treatment attitudes in both close others and sufferers themselves. Future models of family factors and anxiety treatment should take this newly discovered relationship into account. This research serves as additional evidence of the importance of addressing criticism and

accommodation in close others. As previously described, given the relationships between criticism, accommodation, and treatment concerns, close others who are engaging in these unhelpful behaviours are likely to have increased treatment concerns. Thus, involving these individuals in treatment should be done carefully and sensitively. Close others who are staunchly against treatment may not be good candidates for further treatment involvement. Those who show some interest may benefit from a positive clinician interaction in which the benefits of treatment involvement are shared (Sherman & Carothers, 2005). Those who are ambivalent may benefit from motivational interviewing strategies prior to requesting change in critical and accommodating behaviour. Future research may use a person-centered empirical approach to examine whether criticism, accommodation, and treatment concerns are predictive of close others' readiness for change, as has been done with parents of children with behavioural challenges (Andrade, Browne, & Naber, 2015). This could further inform clinical practice.

If close others' behaviours are put on a continuum from overly antagonistic to overly permissive, the goal of intervening is to bring behaviours more into balance, towards the center of the continuum (Renshaw, Steketee, & Chambless, 2005). Renshaw and colleagues suggest that addressing close others' attributions is one path towards balance, through ensuring that relatives do not see clients as either overly in control of nor overly disabled by their disorder. This fits nicely with the Illness Beliefs Model, in which it is suggested that clinicians ask family members about their beliefs around illness, causality, control, suffering, healing, and relationships, and how these concepts are interconnected (Marshall, Bell, & Moules, 2010). Then, clinicians can intervene to explore beliefs (Moen, Aass, Schröder, & Skundberg-Kletthagen, 2021); in alignment with the cognitive-behavioural model, addressing close others' cognitions may be one path to addressing unhelpful behaviours.



Clinical studies of family-based interventions often aim to target these behaviours directly, through psychoeducation about more helpful responses and exercises in reducing these behaviours (e.g., Grunes, Neziroglu, & McKay, 2001; Mehta, 1990). Many close others “simply do not know how best to respond to their relatives’ distress” (Renshaw et al., 2005, p. 172), so it may be useful to validate loved ones’ best intentions and the difficulty in supporting someone with anxiety, in addition to describing the deleterious effects of criticism and accommodation. These interventions would be best addressed in conjoint sessions with the client to facilitate optimal collaboration. Systems-focused interventions can be flexible in length and focus, varying from one to twelve sessions and focusing on the particular needs of the client and close other(s) (Chambless, 2012).

If criticism appears to be relevant to the family dynamic (e.g., as per client report, as observed by clinician, or as reported on a self-report scale by close other), it should be addressed openly and in a non-judgemental manner. After criticism is defined and examples provided, clients can share the impact of criticism on their thoughts, feelings, and behaviours, and close others can share their intentions when they engage in this behaviour. Clinicians can validate both parties and normalize that this dynamic is common when anxiety makes life more difficult. Clinicians can also provide psychoeducation about the relationship between criticism and treatment ambivalence in clients, as well as between criticism and poorer treatment outcomes. Clinician, client, and close other can work collaboratively to discuss what kind of alternative responses may be more helpful. It may be valuable for clinicians to normalize that it is hard to change existing relationship patterns, to encourage both parties to be patient while the other works to change, and to urge clients not to interpret potentially neutral responses as criticism in the meantime. Should unhelpful relationship patterns persist and continue to impede anxiety

treatment, the clinician may consider whether to refer the client and their close other(s) to a systems-focused intervention (e.g., family or couples therapy).

Addressing accommodation can follow a similar paradigm. However, in this case, clients may be more invested in maintaining the status-quo. Close others may share their thoughts and feelings when bids for accommodation are made, as well as the burden that is experienced due to the effects of the anxiety. Clinicians can normalize how natural it is to accommodate and to want to be accommodated, as it provides relief; at the same time, clinicians can provide psychoeducation about accommodation as a form of avoidance or safety behaviour and how it maintains anxiety. A plan for reducing accommodation could draw on or foster new communication and problem-solving skills (Chambless, 2012). Collaborative discussion can allow the clinician, client, and close other to come to alternative responses that do not maintain anxiety, that feel authentic to the close other, and that would be well-received by the client.

Research shows that addressing criticism and accommodation is associated with reduced anxiety (Chambless & Steketee, 1999; Kagan et al., 2016; Piacentini et al., 2011; Merlo et al., 2009). Future research should explore whether addressing criticism and accommodation is also associated with a reduction in treatment concerns in clients and their loved ones. To do so, client/close other dyads can be recruited and asked to complete measures of criticism, accommodation, and treatment concerns (Treatment Ambivalence Questionnaire and the Treatment Concerns Questionnaire – Close Others, respectively) at the beginning, mid-point, and termination of treatment. Analyses can explore whether these variables change together, or whether changes in one proceeds change in others. Additionally, this kind of study would be an opportunity to examine whether treatment concerns in close others predict treatment adherence, drop-out, and outcomes.

## Conclusions

The current research contributes to the literature on the power of social systems. We examined how anxiety sufferers' social circles shape their treatment beliefs, finding that perceived criticism and accommodation are associated with more treatment ambivalence in the sufferer. A novel exploration of close others' treatment concerns was also conducted, finding that close others' reports of hostility and accommodation are correlated with their own treatment concerns as well. This pattern of findings carries implications for both future research and clinical practice. It points to the need for future research to explore the impact of close others' treatment concerns, and whether addressing their concerns can help facilitate anxiety treatment.

By seeing anxiety as a family affair, clinicians may have the power to make even greater and more long-lasting improvements in anxiety. In addition to being effective (e.g., Grunes et al., 2001; Lucksted, McFarlane, Downing, Dixon, & Adams, 2012; Merlo, Lehmkuhl, Geffken, & Storch, 2009), involving close others in mental health treatment is seen as valuable by those involved. Family-Centered Support Conversations are three-session family-based interventions typically conducted by nurses or social workers (Aass, Skundberg-Kletthagen, Schrøder, & Moen, 2020). The aim is to shift perceptions from the family as dysfunctional to the family as having strengths, knowledge, skills, and resources; this is done through discussion about the illness narrative, family functioning, and eliciting family resources that can be leveraged for coping in the future. Clients, families (Aass et al., 2020), and clinicians (Moen et al., 2021) see this intervention as meaningful and valuable. Clients and close others reflected that the presence of the clinician allowed them to talk about topics that were previously too taboo or difficult to talk about. Family members reflected on their yearning to be involved and to help, and that these conversations allowed them to feel valued by mental health care professionals. It is

recommended that conversations about treatment concerns, criticism, and accommodation borrow from the FCSC paradigm in that they broach challenging topics, foster beliefs about the family as a resource, and allow all parties to be heard and understood. Ultimately, the anxiety sufferer will end their relationship with the clinician and will return to using their social network as their primary source of support. Given the high rates of relapse after anxiety treatment ends (Eddy, Dutra, Bradley, & Westen, 2004; Mystkowski, Craske, & Echiverri, 2002), it would be wise to target this social system to improve the odds that it will be ready to support the changes that the anxiety sufferer is hoping to make.

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## Appendices

### Appendix A: TCQ-C

It is common for the close others of those with anxiety to have concerns about their loved one starting treatment. On the one hand, people want their loved one to feel better, but at the same time they may be concerned that treatment could come at a cost. This questionnaire asks about your concerns about your loved one starting treatment.

Please rate how much you agree or disagree with each of the following statements.

I am concerned that...

	1 strongly disagree	2 moderately disagree	3 slightly disagree	4 neither agree nor disagree	5 slightly agree	6 moderately agree	7 strongly agree
1. Treatment will not work.	1	2	3	4	5	6	7
2. My loved one will be self-critical or feel like a 'failure' if they do not 'succeed' in treatment.	1	2	3	4	5	6	7
3. Treatment will be a waste of time and/or money.	1	2	3	4	5	6	7
4. Treatment will negatively change the way my loved one sees me.	1	2	3	4	5	6	7
5. Treatment will not be potent or comprehensive enough to help my loved one.	1	2	3	4	5	6	7
6. My loved one will not use the coping tools that they learn in treatment.	1	2	3	4	5	6	7
7. I will lose my relationship with my loved one because of this treatment.	1	2	3	4	5	6	7



8.	Treatment will be overwhelming for my loved one.	1	2	3	4	5	6	7
9.	If my loved one's anxiety improves, other issues in our relationship/family will become more prominent.	1	2	3	4	5	6	7
10.	My loved one will feel hopeless or depressed if treatment does not help.	1	2	3	4	5	6	7
11.	Treatment will change my loved one in a negative way.	1	2	3	4	5	6	7
12.	Treatment will create too much pressure for my loved one.	1	2	3	4	5	6	7
13.	Through treatment, my loved one may learn about symptoms or fears that others have and will take on these fears or symptoms as their own.	1	2	3	4	5	6	7
14.	My loved one will not be fully committed to improving.	1	2	3	4	5	6	7
15.	Treatment will lead to worsened symptoms.	1	2	3	4	5	6	7
16.	My loved one will not complete all the required components of the treatment.	1	2	3	4	5	6	7
17.	If treatment is difficult, my loved one will become discouraged and give up.	1	2	3	4	5	6	7

What other concern(s) do you have about your loved one starting treatment?

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## Appendix B: Overview of CBT

C

B

T

“C” stands for cognitive.

This aspect of CBT looks at the **thoughts and predictions** that people have about anxiety-provoking situations.

C

B

T

“B” stands for behavioural.

This aspect of CBT looks at **what people do** when they’re feeling anxious.

**C**

**B**

**T**

“T” stands for therapy.

This method is scientifically proven to reduce anxiety by targeting the **cognitive** and **behavioural** factors that keep anxiety maintained.

## Thoughts and behaviours matter.

- Sometimes people in the **exact same situations** think and behave differently from each other; this can result in these people having different **feelings**, as well.
- Consider the following scenario in which two people, Lisa and Emilio, are waiting in line to get on a rollercoaster at Canada’s Wonderland.



## Thoughts and behaviours matter.

- As you can see, Lisa and Emilio were in the **exact same situation** (the rollercoaster), but what they thought and did contributed to how they were feeling.
- CBT helps clients address their thoughts and behaviours that may be maintaining their anxiety.

## CBT addresses anxiety-related thoughts.

- Anxiety narrows the kind of information we pay attention to.
- CBT helps people **identify negative thoughts**, beliefs, or interpretations that are based on this narrow view.
- With the help of a therapist, these thoughts are reconsidered in light of **all available information**, and modified accordingly.

## CBT addresses anxiety-related behaviours.

- CBT helps people **face situations they usually avoid**.
- This involves gradual exposure to people, places, or situations that may cause distress, **without the use of typical coping strategies** (e.g. avoidance).
- At first, facing fearful situations can be stressful, but this stress usually decreases over time.

## For more information on CBT, see these resources.

Stewart, R. E., & Chambless, D. L. (2009). Cognitive-behavioral therapy for adult anxiety disorders in clinical practice: A meta-analysis of effectiveness studies. *Journal of Consulting and Clinical Psychology, 77*(4), 595–606.

Hofmann, S. G., & Smits, J. A. (2008). Cognitive-behavioral therapy for adult anxiety disorders: A meta-analysis of randomized placebo- controlled trials. *Journal of Clinical Psychiatry, 69*(4), 621–632.

Otte, C. (2011). Cognitive behavioral therapy in anxiety disorders: current state of the evidence. *Dialogues Clinical Neuroscience, 13*, 413–421.