

THE INFLUENCE OF CHILD AGE AND GENDER ON THE ACCEPTABILITY OF
TREATMENTS FOR CHILD ANXIETY

BY

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A Thesis submitted to the Faculty of Graduate Studies
In Partial Fulfillment of the Requirements for the Degree of

MASTER OF ARTS

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Of

MASTER OF ARTS

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Abstract

Treatment acceptability (TA) refers to judgments individuals make about the appropriateness, fairness, and suitability of a treatment. While a number of studies have examined the acceptability of interventions for externalizing child behaviour problems (e.g., aggression), little is known about the acceptability of treatments for childhood internalizing problems (e.g., anxiety). This study examined the influence of child age and gender on ratings of acceptability of parent-focused psychosocial treatment, child-focused psychosocial treatment, and medication treatment for child anxiety. Four hundred and sixteen university students were randomly assigned to read two case vignettes describing either an anxious 6- and 13-year-old boy or an anxious 6- and 13-year-old girl. After reading each case vignette, participants completed ratings of treatment acceptability for the three treatments. Overall, both parent-focused and child-focused treatments were rated as more acceptable than medication. Parent-focused treatment was rated as more acceptable for younger children than older children, and child-focused treatment was rated as more acceptable for older children than younger children. Medication was found to be rated as less acceptable for younger children compared to older children. Also, for younger children, parent-focused treatment was rated as more acceptable than child-focused treatment; and for older children, child-focused treatment was rated as more acceptable than parent-focused treatment. Child gender was found not to influence ratings of TA. Finally, this study explored the association between causal beliefs about child anxiety and TA. The findings suggest that child age plays a role in guiding adults' perceptions of treatments for child anxiety. The implications of these findings for better understanding treatment utilization and adherence are discussed.

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The Influence of Child Age and Gender on the Acceptability of Treatments for Child Anxiety

The variety of treatment choices and the promise of effective psychological interventions have led to increased attention to the social validity of interventions. *Social validity* refers to the social importance of an intervention and involves three components: the social significance of the goals of treatment, the social appropriateness of treatment procedures, and the social importance of the effects of treatment (Wolf, 1978). Most research in social validity has focused on the social appropriateness or acceptability of treatment procedures. Treatment acceptability is defined as “judgments about the treatment procedures by nonprofessionals, lay persons, clients, and other potential consumers of treatments” (Kazdin, 1980a, p. 259). It includes people’s judgments about the appropriateness of treatment for a problem; whether treatment is fair, reasonable, and nonintrusive; and whether treatment coincides with conventional notions regarding treatment.

Treatment acceptability is a concept that is both theoretically and practically relevant to the delivery of treatment services. A theoretical model of treatment acceptability, proposed by Witt and Elliott (1985), acknowledges the interrelationships among treatment acceptability, use, integrity and effectiveness. First, the model argues that judgments about the appropriateness of treatment initially guide the selection of treatment by individuals. Treatment selection, in turn, leads to the use of treatment. Both treatment acceptability and the utilization of treatment consequently impact the implementation of procedures as intended (treatment integrity) and ultimately affect treatment effectiveness. Finally, information on the success or failure of the treatment’s

effectiveness feeds back into the model, therefore, affecting individuals' judgments of treatment acceptability (Witt & Elliott, 1985). For example, if parents perceive family-based interventions to be acceptable for the treatment of child anxiety, then this type of treatment would likely be selected, utilized, and adhered to. If the family-based treatment is effective in reducing child anxiety, then this will likely reinforce or increase parents' judgments about the acceptability of family-based treatments. Evidence from treatment acceptability research has supported the relation between acceptability and effectiveness (e.g. Reimers, Wacker, Cooper & DeRaad, 1992; Von Brock & Elliott, 1987) and the associations between effectiveness, implementation and use (Clark & Elliott, 1988). Thus, treatment acceptability appears to be an important concept that is applicable to understanding the basis of individuals' treatment choices and their motivation behind treatment utilization and adherence.

Another important reason for studying treatment acceptability is the economic implications. Presumably, treatments that are deemed more acceptable are more likely implemented and adhered to, which is an efficient way to utilize society's economic resources; therefore, increasing cost-effectiveness (Cross Calvert & Johnson, 1990). Maximizing the cost-effectiveness of treatment interventions has a potential impact on the delivery of health care and the availability of medical services. The ability to identify individuals who hold favorable and unfavorable attitudes about particular treatments may help predict adherence and attrition to treatment regimens. Given that attrition rates for child and family therapy have been reported to range between 23% and 75% (Kazdin 1990; Viale-Val, Rosenthal, Curtis, & Marohn, 1984, as cited in Kendall & Sugarman, 1997), a better understanding of consumers' beliefs about the appropriateness of

treatments could provide more information that could improve rates of treatment adherence.

Finally, research in treatment acceptability may play an important role in the development of community intervention programs. Understanding consumers' views about the appropriateness and utility of a proposed intervention would be practical before an intervention is fully developed and implemented. For example, evaluating parents' and teachers' thoughts and attitudes about a new school program aimed at improving children's social skills and self-esteem would not only provide useful information in the design and implementation of the program, but the support or success of the intervention could also be determined. Moreover, information on treatment acceptability may also indicate areas where education regarding treatment procedures is warranted if an intervention is known to be effective, yet perceived by some as less acceptable than alternative, less effective or unproven treatments.

A key concept related to treatment acceptability is treatment effectiveness. These terms tend to be equated in the social validity literature; however, treatment effectiveness pertains to the success of a treatment in changing the problem behaviour in the desired direction (Von Brock & Elliott, 1987). Although a reciprocal relationship appears to exist between treatment acceptability and effectiveness (Von Brock & Elliott, 1987), there are also cases in which effective treatments are not necessarily perceived as acceptable. For example, Ritalin, a highly effective treatment for children with attention-deficit/hyperactivity disorder (ADHD), is perceived as relatively low in acceptability (Liu, Robin, Sheldon, & Eastman 1991). Similarly, treatments perceived by lay persons as acceptable may not necessarily be effective (e.g. dietary interventions for treating

children with ADHD). Nonetheless, when effectiveness information is provided, studies on treatment effectiveness have generally demonstrated that effective treatments are more acceptable than ineffective treatments (e.g. Kazdin, 1984; Tingstrom, McPhail, & Bolton, 1989). In the present study, treatment acceptability, as defined by Kazdin (1980a) in terms of appropriateness, suitability, and fairness, was assessed and compared for three different interventions for child anxiety: parent-focused psychosocial treatment, child-focused psychosocial treatment, and medication. Each intervention has some support for its effectiveness (e.g. Barrett, 1998; Kendall, 1994; Walkup, Labellarte, & Ginsburg, 2002).

Factors that Influence Treatment Acceptability

A variety of factors have been found to influence ratings of treatment acceptability. These include characteristics of the intervention, characteristics of the rater, and characteristics of the identified patient (target).

Intervention Characteristics

Research has generally indicated that treatments described as effective tend to be rated as more acceptable than treatments described as less efficacious or powerful in producing desired effects (Clark & Elliott, 1988; Kazdin, 1984; Tingstrom et al., 1989; Von Brock & Elliott, 1987). For example, Tingstrom et al. (1989) evaluated the impact of effectiveness information on university students' ratings of treatment acceptability for several school-based behavioural interventions for disruptive problems. Participants were randomly assigned to one of three information conditions: effective information, ineffective information and no information. Ratings of treatment acceptability were greater in the effective information condition than the ineffective information condition.

In addition, when compared to individuals who received no information about the intervention's effectiveness, raters who received effective information reported slightly higher ratings of acceptability. In a study of psychiatric inpatient children and their parents, the effect of treatment efficacy information on the acceptability of behavioural and medication treatments for disruptive child behaviour was examined (Kazdin, 1984). Treatments were depicted as producing strong (i.e. rapid changes, elimination of problem behaviours) or weak (i.e. less rapid and pronounced changes) therapeutic effects. Results showed that treatments that were described as having strong therapeutic effects were rated as more acceptable and more favorable than treatments that were depicted as having weaker effects.

The complexity and time involved in employing the intervention is another factor that has been shown to influence consumers' attitudes about treatment acceptability. Studies have demonstrated that more complex interventions requiring large amounts of time, effort and skill are rated less acceptable by teachers than simpler interventions that demand less time, effort and skill (Elliott, Witt, Galvin & Peterson, 1984; Witt, Martens & Elliott, 1984). Treatment complexity and acceptability ratings, however, have also been found to vary depending on the severity of the problem, with complex interventions rated as more acceptable for more severe problems (Elliott et al., 1984).

Judgments of treatment acceptability may also be affected by the rationale or reason justifying the use of a particular intervention strategy. For example, Witt, Moe, Gutkin and Andrews (1984) conducted a study examining the impact of behavioural versus humanistic versus pragmatic rationales for the same intervention (i.e. child staying in at recess) on teachers' ratings of treatment acceptability. Teachers completed a

measure of treatment acceptability for one of six cases which varied in child problem severity (mild, severe) and treatment rationale (behavioural, humanistic, pragmatic). Pragmatic rationales (i.e. staying in at recess as a logical consequence for the child misbehaviour) resulted in greater treatment acceptability ratings compared to the behavioural (i.e. staying in at recess to learn more effective social skills) and humanistic rationales (i.e. staying in at recess to help the child learn to express feelings).

Treatment acceptability also appears to be affected by the type of treatment being evaluated (i.e. psychosocial versus medication). A robust finding in the literature is that psychosocial treatments are generally perceived to be more acceptable than medication treatment (e.g. Liu et al., 1991; Walker, Katz, Sexton, Afifi, & Kjemisted 2003; Tarnowski, Simonian, Bekeny & Park, 1992). For example, research on the acceptability of treatments for depression has found behavioural and cognitive-behavioural interventions to be more acceptable than pharmacological intervention (Banken & Wilson, 1992; Tarnowski et al., 1992). Studies have also shown that parents tend to rate psychosocial interventions such as positive reinforcement and time-out as more acceptable than medication for treating mild behaviour problems in children (Reimers, Wacker & Cooper, 1991).

Beyond the type of treatment (e.g. psychosocial), studies have suggested that treatment acceptability may be influenced by the focus of treatment, such as a therapist working only with a child versus the whole family, or a therapist working directly with the child or directly with the parents to change the child's behaviour. For example, teachers rated interventions involving parents as more acceptable than interventions without parental involvement for written descriptions of children displaying symptoms of

ADHD (Munn & Sullivan, 2000). In a study involving 48 psychiatric inpatient children and their parents, Kazdin (1986) evaluated the acceptability of outpatient psychotherapy and inpatient hospitalization for severe child behaviour problems using an analogue methodology. The focus of treatment (child-only versus child-and-parent) was also examined, comparing a child-focus condition (i.e. child directly treated for his or her problem) versus a child-and-parent focus condition (i.e. child directly treated and parents were helped to work with the child). Results revealed no differences across the child-only and the child-and-parent focused treatments on ratings of treatment acceptability, as measured by the Treatment Evaluation Inventory (TEI; Kazdin, 1980a) and the Evaluative scale of the Semantic Differential measure (Osgood, Suci & Tannenbaum, 1957). However, when the strength of the treatment (i.e. potency) was considered as a dependent variable, a marginally significant effect was found for treatment focus. Child-and-parent focused treatment was rated as more potent than child-focused treatment. The failure to find an effect of child versus child-and-parent focus on treatment acceptability might have been due to the way in which the treatment focus variable was manipulated in the study. No specific information on the treatment procedures was provided, resulting in vague treatment descriptions. Moreover, a sample of severely disturbed families was employed; therefore, their experiences with psychotherapy and hospitalization may have differed from families of patients with less severe mental health problems. Clearly, more information is needed on how treatments which focus on the child alone versus those that focus on parents, affect perceptions of acceptability. This seems especially true given recent movements toward the development of interventions which target parenting

behaviours to address child anxiety problems (e.g. Barrett, 1998; Barrett, Dadds, & Rapee, 1996).

The majority of studies on treatment acceptability has focused on behavioural interventions (such as time-out and reinforcement) that are implemented by parents or teachers (e.g. Norton, Austen, Allen, & Hilton, 1983; Tingstrom et al., 1989). Although research has closely examined the acceptability of specific behavioural procedures, less is known about the acceptability of child-focused treatments which involve directly teaching children strategies and techniques geared toward changing their own behaviour problems, versus interventions that target parents' behaviours to change child behaviours. Moreover, no research, to date, has investigated the impact of different treatment foci (i.e. child versus parent) on judgments of treatment acceptability for child internalizing problems.

Rater Characteristics

Characteristics of the individual providing acceptability ratings have been shown to affect judgments of treatment acceptability. For example, parents have generally been found to rate treatments for disruptive child problems as relatively more acceptable than children. This has been found for ratings of reinforcement, positive practice, time out from reinforcement, and medication (Kazdin, French, & Sherick, 1981) as well as for ratings of outpatient psychotherapy and inpatient hospitalization (Kazdin, 1986). Furthermore, compared to parents, teachers have been found to rate behavioural treatment procedures for disruptive child behaviour as more acceptable and effective (Norton et al., 1983).

The gender of the rater has also been associated with perceptions of treatment acceptability. Studies of the acceptability of behavioural treatments for child disruptive behaviour have generally found that fathers rate the use of discipline (e.g. spanking) as more acceptable than mothers (e.g. Miller & Kelley, 1992). While mothers have been found to perceive individual child therapy and family therapy as more acceptable than fathers, both mothers and fathers seem to share low perceptions of acceptability of medication (Phares, Ehrbar, & Lum, 1996).

The influence of the rater's status as a parent or nonparent on judgments regarding treatment acceptability has been examined as well. Findings have generally demonstrated that parenting status does not influence acceptability ratings (e.g. Frenz & Kelley, 1986; Pickering, Morgan, Houts & Rodrigue, 1988). For instance, Pickering et al. (1988) evaluated the acceptability of four interventions (reinforcement of other behaviour, overcorrection, time-out, shock) for children's self-injurious behaviour in a sample of married college students who were identified as parents and non-parents. Results found that except for one intervention (shock), parents and non-parents did not differ in their overall ratings of acceptability. Parents rated shock as less acceptable than nonparents.

Treatment acceptability may be affected by individuals' attributions or perceptions of the cause of the problem for which treatment is indicated. Research has shown that parental attributions are related to acceptability ratings of behavioural interventions for child behaviour problems, and may influence the implementation of treatment (Reimers, Wacker, Derby & Cooper, 1995). For example, parental physical causal attributions (e.g. child's difficulties are due to medication) of child behaviour

problems have been found to be negatively associated with parents' acceptability ratings of behavioural treatments (Reimers et al., 1995). Beliefs about the source of the child's problem likely influence individuals' thoughts about how to ameliorate the problem and implement treatment, which in turn, can affect their evaluations of treatment acceptability. For instance, if a child's anxious behaviour is attributed to the parent and the parent is viewed as being responsible for the problem, then parent-focused interventions may be judged as more acceptable than child-focused treatment interventions. Conversely, if anxiety is seen as a problem inherent in the child, treatment interventions directed at changing the child (i.e. child-focused treatment) may be evaluated as more appropriate.

Other characteristics of the rater, such as the individual's knowledge, familiarity, and experience with the intervention, also appear to impact perceptions of treatment acceptability. Teachers' knowledge of behavioural principles of the interventions, for example, has been shown to be positively correlated with ratings of acceptability for behavioural interventions (Clark & Elliott, 1988). Similarly, McKee (1984, as cited in Johnston & Cross-Calvert, 1990) reported that compared to low-knowledge teachers, teachers who showed high knowledge of social learning principles rated the classroom interventions as more acceptable. In terms of teaching experience, highly experienced teachers have been found to rate classroom interventions as less acceptable than teachers with fewer years of teaching experience (Witt, et al., 1984; Witt & Robbins, 1985).

In addition to the rater's knowledge about the intervention, the individuals' understanding or knowledge about the disorder appears to affect treatment acceptability. For example, studies on medication treatment for ADHD in children have found a

relationship between parental knowledge about ADHD and pursuit and utilization of medication (e.g. Liu et al., 1991; Bennett, Power, Rostain, & Carr, 1996). Despite mixed results showing a negative (Rostain, Power, & Atkins, 1993) and positive (Liu et al., 1991) association between parental knowledge and medication acceptability, research suggests that raters' knowledge and beliefs about a disorder are associated with opinions regarding treatment acceptability.

Child Characteristics

Factors associated with the child have been demonstrated to affect raters' evaluations of treatment acceptability. A major factor that has been well-researched is the severity of the child's problem behaviour. Studies have generally indicated that the more severe the problem, the higher the rating of treatment acceptability (e.g. Von Brock & Elliott, 1987; Kazdin, 1980a; Witt, Martens et al., 1984; Witt, Moe et al., 1984; Reimers et al., 1991). For example, an early study by Kazdin (1980a) revealed that all of the treatments examined (time out, reinforcement, medication, electric shock) were rated as more acceptable for more severe disruptive child behaviour problems. In a study with parents seeking services for their children in a behaviour management clinic, however, acceptability ratings were shown to vary as a function of problem severity and type of intervention (Reimers et al., 1991). Positive reinforcement and time-out were rated relatively more acceptable for problems of low severity, and medication was rated as more acceptable for highly severe behaviour problems.

The type of child problem (e.g. internalizing vs. externalizing) also appears to influence ratings of treatment acceptability. For example, maternal ratings of acceptability of behavioural interventions have been found to be higher when considering

aggressive child behaviour compared with withdrawn child behaviour (Kalfus & Razzano, 1992). Phares, Ehrbar and Lum (1996) also evaluated parents' ratings of acceptability of interventions (increased behavioural contingencies, medication, individual therapy and family therapy) for internalizing and externalizing child behaviour problems. Parents were randomly assigned to read one of eight case vignettes which varied on child gender (boy, girl), age (6 year old, 15 year old) and type of problem. Evaluations were completed for problem severity, parental responsibility and treatment acceptability. Acceptability ratings were measured on a single-item scale ranging from 1 (low acceptance) to 7 (high acceptance). Results revealed that mothers and fathers were rated as more responsible for the development and treatment of younger rather than older children's internalizing and externalizing problems. In terms of treatment acceptability, increased behavioural contingencies were rated as more acceptable for externalizing problems (e.g. oppositional-defiant behaviour), while medication, individual therapy and family therapy were reported to be more appropriate for children's internalizing problems (e.g. depression). Interestingly, although the mean ratings of severity for both types of problems were high, parents perceived internalizing disorders to be more serious than externalizing problems, regardless of the child's gender or age.

Most of the research on treatment acceptability has focused on externalizing behaviours involving aggression, noncompliance and disruptiveness (e.g. Kazdin, 1980a, 1984; Kazdin et al., 1981; Norton et al., 1983; Reimers et al., 1991; Tingstrom et al., 1989). Few studies have been conducted on treatment acceptability for internalizing disorders. In one study, Tarnowski et al. (1992) evaluated the effects of problem symptom severity and subject race on ratings of treatment acceptability of four

psychological interventions (attribution retraining, social skills training, cognitive therapy, contingency management) and a pharmacological treatment (tricyclic antidepressant) for childhood depression. Sixty mothers (30 African American, 30 Caucasian) of children who were seen for routine pediatric outpatient visits were randomly assigned to read one of two case vignettes describing an 11-year-old child with mild or severe symptoms of depression. Mothers were then asked to rate their acceptability of the five interventions. Results showed that the psychological interventions were evaluated as more acceptable than the pharmacological treatment across vignettes describing mild and severe symptoms. Among the psychological treatments, cognitive therapy was rated as most acceptable and social skills training was rated as least acceptable.

In a recent study by Miller, DuPaul and Lutz (2002), the acceptability and effectiveness of three school-based psychosocial interventions for childhood depression were examined. Two hundred and twenty-eight school psychologists were randomly assigned to receive one of three treatment descriptions: cognitive restructuring, social skills training or self-control therapy. A case depicting a group of three Grade 5 students (two girls and one boy) exhibiting depression was read by the school psychologists and treatment acceptability was measured using the Behavior Intervention Rating Scale (BIRS; Von Brock & Elliott, 1987). Cognitive restructuring and self-control therapy were rated as more acceptable and effective than social skills training. However, cognitive restructuring and self-control therapy were not rated as significantly different from each other on perceived acceptability or effectiveness.

While there are a few studies on treatment acceptability and childhood depression, little research has been conducted within the realm of child anxiety disorders. In a study by Gullone and King (1991), the acceptability of behavioral management, home tutoring with psychotherapy, hospitalization and medication was evaluated for the treatment of school refusal in children. Three hundred and seventy-six individuals comprised of secondary students, parents, teachers and nurses, read a case describing a 6-year-old girl who experienced intense anxiety about attending school, and completed a single item on treatment acceptability and perceived effectiveness. Findings revealed that behavioral management was rated as most acceptable and effective which was followed, in order, by home tutoring with psychotherapy, hospitalization, and medication. Ratings of treatment acceptability were also found to vary depending on the rater group. Students rated home tutoring with psychotherapy, hospitalization and medication higher than the professional and parent groups. Furthermore, regarding the gender of raters, female participants showed higher ratings for behavioral management and home tutoring with psychotherapy, and lower ratings for medication and hospitalization compared with male participants.

Only one published study, to date, has been conducted on child anxiety. Chavira, Stein, Bailey and Stein (2003) recently examined parents' opinions about treatment for childhood social anxiety. One hundred and ninety parents and their children were randomly selected from a pediatric primary care mailing list and completed clinical measures on social anxiety. Parents also completed a survey which assessed treatment attitudes regarding medication acceptability, counseling acceptability, counseling feasibility, and general beliefs about social anxiety treatment. Though parents generally

endorsed “agreeable” attitudes towards counseling interventions and “neutral” attitudes toward medication, findings revealed that parents endorsed more favorable attitudes towards counseling than medication. Parents were also found to show positive beliefs about the usefulness of treatment for child social anxiety.

An examination of treatment acceptability of child anxiety was recently conducted in a preliminary study involving a sample of 28 school psychologists who read case descriptions of an 8-year-old anxious boy or girl and rated their acceptability of a pharmacological treatment, parent-focused psychosocial intervention and child-focused psychosocial intervention (Mariani & Freeman, 2003). Consistent with previous research, medication was rated least acceptable for treating anxiety in children. Results from this preliminary study revealed a marginally significant interaction between child gender and treatment with parent-focused treatment rated as more acceptable for boys than for girls, and child-focused treatment as more acceptable for girls than boys. Medication was rated as more acceptable for boys than for girls. Given the small sample and low power in this study, the findings are tentative and require further investigation. Compared with research on the acceptability of treatments for disruptive or externalizing child behaviour problems, there are few studies on treatment acceptability in the area of internalizing disorders. As of yet, no research has investigated the acceptability of parent-focused versus child-focused treatments for child anxiety.

The Influence of Child Age. Specific child characteristics such as age and gender have been found to affect raters’ attitudes about treatment acceptability. However, studies that have examined the influence of child age and gender have shown mixed results. In terms of child age, some studies have found a significant effect (e.g. Phares et al, 1996),

while others have not (e.g. Tingstrom et al., 1989). Similarly, there are conflicting findings regarding the influence of child gender on treatment acceptability, with some studies yielding no differences across gender (e.g. Norton et al., 1983) and others finding a significant gender effect (e.g. Pisecco, Huzinec & Curtis, 2001). It is evident from these inconsistent findings that the research on the impact of child age and gender on treatment acceptability has not been thoroughly investigated. Aside from some preliminary data (Mariani & Freeman, 2003), no research has systematically examined the effects of child age and gender on the acceptability of treatments directed toward children versus parents.

Only one study has directly examined the impact of both child gender and child age on treatment acceptability; however, the results were non-significant. In this study, teachers and parents were asked to evaluate the effectiveness and acceptability of five behavioural procedures (reinforcement, isolation, contingent observation, isolation with contractual agreement, and attention-withdrawal backed by isolation) for disruptive child behaviour (Norton et al., 1983). Teachers and parents were presented with case descriptions that varied in child age (5 years vs. 10 years) and child gender (male vs. female). Reinforcement was rated as more effective for older children, while the remaining four treatment procedures were rated as more effective for younger children. In terms of acceptability, however, all of the behavioural treatment procedures were reported to be equally acceptable for younger and older children. Parents' and teachers' acceptability ratings did not vary across child gender. A few limitations of this study, however, include the single-item rating used to evaluate treatment acceptability, which may not have provided an adequate sensitive measure, and the exclusive focus on specific behavioural treatment procedures. Tingstrom et al. (1989) also conducted a study which

examined the influence of child age on the acceptability of various school-based, behavioural interventions (differential reinforcement of incompatible behaviours, time out, corporal punishment, and parental presence in the classroom). Case vignettes described a boy at 8 and 13 years of age who exhibited disruptive behaviour problems. Three hundred and two undergraduate students were instructed to read one case description, the intervention and effectiveness information, and then asked to rate the appropriateness of the intervention using the Treatment Evaluation Inventory (TEI; Kazdin, 1980a). Acceptability ratings were not significantly influenced by the age of the child; however, the descriptions of the child's age might not have been salient in the case descriptions, which has been a common and persistent challenge in other treatment acceptability research. Another possibility might have been due to the lack of differentiation between the age levels (8 and 13 years) given the small age gap.

A recent study evaluating the acceptability of treatments for trichotillomania (Elliott & Fuqua, 2002) also found no effect of age on ratings of acceptability. University students read one of six female case vignettes which varied in age (6 years, 16 years, 26 years) and problem severity (mild, severe). Participant then read descriptions of four interventions (habit reversal, hypnosis, medication, punishment), each followed by a brief treatment acceptability measure. All of the treatments were reported to be acceptable; however, habit reversal and hypnosis were rated higher than punishment and medication. Ratings of acceptability did not differ across patient age or problem severity. Similar to other studies (Norton et al., 1983; Tingstrom et al., 1989), the failure to find an effect was likely due to the lack of salient information described in the cases. Thus, in order to accurately assess the influence of child characteristics on perceptions of treatment

appropriateness, greater attention and scrutiny are required in developing case descriptions that are distinguishable across child ages. Also, the study did not compare treatments that were child-focused versus treatments that were parent-focused. The acceptability of these different approaches to intervention may be more likely to vary with child age.

Support for the impact of child age was demonstrated in the study by Phares and her colleagues (1996) which found parents rated increased behavioural contingencies as more acceptable for younger children (i.e. 6-year-olds) than older children (i.e. 15-year-olds). Evidence from a treatment outcome study suggests that child age may be associated with treatment acceptability. A randomized controlled trial that compared the effectiveness of cognitive-behaviour therapy (CBT) versus CBT plus family anxiety management (CBT + FAM) for treating child anxiety, showed that a greater percentage of younger children (ages 7 to 10) in the CBT + FAM condition (100%) were diagnosis-free at posttreatment compared to those in the child-focused CBT condition (55.6%) (Barrett, Dadds, & Rapee, 1996). For older children (ages 11 to 14), however, there were no significant differences across the two treatment conditions at posttreatment. These findings seem to suggest that enhancing parenting skills and including a family component to an intervention may be important factors in treating younger children with anxiety problems, and may be perceived as more acceptable for treating anxiety problems in younger versus older children.

An explanation for the stronger response to family-based treatment among younger children is supported by evidence that parents are perceived to be more responsible for young children's behaviour (Phares et al., 1996). Early on in their

development, children have limited cognitive, social and emotional capabilities, and parents are required to provide close supervision and monitoring of their children's behaviours. With respect to treatment, developmental considerations such as children's limited ability to identify emotional states, their understanding of psychoeducation material, and their present-orientation provide support for the necessity of parental involvement in younger children's treatment (Piacentini & Bergman, 2001). Adolescents (e.g. age 12 years or more), on the other hand, are more capable of abstract cognitive reasoning and are perceived to be more responsible for their actions and behaviours compared to younger children (Barrett, 2000; Piacentini & Bergman, 2001). Further, research on parent attributions has reported differences in parents' explanations of older and younger children's behaviours (Miller, 1995), with mothers making greater internal attributions (i.e. intentionality and disposition) to explain older children's misbehaviours than younger children's misbehaviours (Dix, Ruble, Grusec, & Nixon, 1986; Gretarsson & Gelfand, 1988; as cited in Cote & Azar, 1997).

The Influence of Child Gender. Research on the influence of child gender on treatment acceptability has shown conflicting and inconsistent results. For example, Phares and her colleagues (1996) found that parents rated increased behavioural contingencies as equally acceptable for boys and girls. However, when considering child gender and the type of problem, individual therapy and family therapy were rated as more acceptable for boys with internalizing problems than girls with internalizing problems, and more acceptable for girls with externalizing behaviour problems than for boys. This finding suggests that family therapy may be more acceptable and appropriate when problems are gender non-normative. In other words, the involvement of the family may

be important when treating boys with internalizing problems (e.g. anxiety) or girls with externalizing problems (e.g. aggression).

Findings from a recent study examining teachers' acceptability of classroom behavioural interventions (daily report cards, response cost technique, classroom lottery) and medication for the treatment of ADHD, revealed a significant interaction between treatment type and child gender (Pisecco, Huzinec, & Curtis, 2001). Teachers rated the behavioural interventions as more acceptable for girls compared to boys; while medication was rated as more acceptable for boys than girls. Similarly, results from a preliminary study revealed a marginally significant interaction between child gender and treatment (Mariani & Freeman, 2003). Parent-focused psychosocial treatment was rated as more acceptable for boys than for girls, and child-focused psychosocial treatment was rated more acceptable for girls than for boys. Medication was also rated as more acceptable for boys than for girls. Potential differences in treatment acceptability across boys and girls is also suggested by Kazdin's study (1980a) where he presented cases describing a disruptive 5-year-old girl or 10-year-old boy to a sample of undergraduate students. Behavioural intervention was rated as more acceptable than drug treatment, and shock was rated the least acceptable form of treatment. Although child age and gender were not directly tested (since the age and gender variations in the case descriptions were employed in the study for the purposes of generalizing the findings beyond a single age/gender), treatment acceptability ratings for all treatments were higher in the responses to the 10-year-old male vignette compared with the 5-year-old female vignette.

A significant effect for child gender has been found in Barrett et al.'s (1996) treatment outcome study. Female participants responded better to the CBT + FAM

intervention compared to child-focused CBT at posttreatment and at 12-months follow-up. No significant differences, however, were found across treatment conditions for male participants at posttreatment and 12-months follow-up. Males responded equally to the two treatment conditions. The significant gender findings may reflect differences in parent interactions with their anxious children (Krohne & Hock, 1991). For example, during a problem-solving lab task between mothers and their children, it was found that mothers of high-anxious girls were more likely to intervene competitively in their daughter's problem-solving activity after the child was working alone on the task (Krohne & Hock, 1991). In contrast, mothers of high-anxious boys were less likely to intervene in their son's problem-solving after the child worked alone on the task. These findings suggest that parents may feel more inclined to interfere in girls' activities than in boys' because of the apparent need to support, protect, and nurture girls. For example, insecure preschool girls (i.e. girls with an ambivalent or avoidant attachment style) have been found to be more dependent and receive more guidance and help from adults compared to insecure boys (Turner, 1991; 1993). Behavioural observations of toddlers interacting with parents at home have also found that insecure boys receive very little instruction and direction from both their mothers and fathers compared to insecure girls who have been found to receive the most instruction from fathers (Fagot & Kavanagh, 1993). As these findings suggest, it may be perceived as appropriate for girls to elicit help or request guidance from parents, while boys may be expected to be more assertive and independent.

Another explanation for the gender difference in treatment outcome may be attributed to the gender socialization in parenting in which greater closeness to parents is

emphasized for girls, and greater autonomy from parents is encouraged for boys (Leaper, 2002). Girls have traditionally been encouraged to maintain close ties to the family and greater restrictions in activities and behaviours may be placed on daughters than on sons. A meta-analysis of parents' differential socialization of boys and girls has also revealed warmth and the encouragement of dependency to be slightly higher for girls than boys, although the reported effect sizes were variable and non-significant (Lytton & Romney, 1991). Research on referability of child clinical problems has indicated that American parents report more concern about and are more likely to refer their daughters than their sons for professional help for both internalizing and externalizing type problems (Weisz & Weiss, 1991). Thus, parental involvement in the treatment of girls' mental health problems may be more acceptable given the greater socialization of familial affiliation in girls and the increased clinical attention that girls receive. In light of this, and despite some of the conflicting findings regarding the specific effects and direction of effect of child gender on treatment acceptability (e.g. Phares et al., 1996; Mariani & Freeman, 2003), it can be argued that parent-targeted intervention components may be particularly acceptable for girls. For similar reasons, child-focused treatments may be more acceptable for boys given parents' socialization of independence and self-assertiveness in boys.

Little research has adequately examined the influence of child age and gender on perceptions of treatment acceptability for externalizing and internalizing problems. However, these child characteristics are important to consider in examining the acceptability of treatments for child anxiety. First, research has indicated parents' greater responsibility for young children's (e.g. 6 years of age and below) behaviour due to their

limited cognitive, social and mental development (Phares et al., 1996). Second, epidemiological studies have shown that diagnoses of anxiety disorders (e.g. social phobia, generalized anxiety disorder) tend to be more common in females compared to males (APA, 2000). Retrospective studies of clinical samples have reported that females at age six were twice as likely to have experienced an anxiety disorder compared to males (Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998; as cited in Barrett, 2000). The prevalence of anxiety disorders also appears to be higher for females than males in adolescence (Manassis, 2000). Third, parent referrals for internalizing problems have been shown to be higher for girls compared to boys (Weisz & Weiss, 1991). Finally, younger children and girls with anxiety problems have been found to show a stronger response to family-based treatments compared to individual cognitive-behavioural therapy (Barrett et al., 1996). Whether this gender finding is at least partly a reflection of greater acceptability of family-based treatments for girls than boys is speculative and requires further investigation.

Research on treatment acceptability has been largely conducted using an analogue method. This consists of utilizing written (e.g. Von Brock & Elliott, 1987) or audio (e.g. Kazdin, 1980) case descriptions of the problem behaviour and treatment interventions. Other studies have employed a more naturalistic method which evaluates the acceptability of treatment, after treatment interventions have been implemented (e.g. Reimers et al., 1995). Despite the advantages of studying naturalistic situations, there are benefits to using an analogue methodology. Although the use of case descriptions may lack ecological validity in representing real-life child problems, and attitudes of actual consumers (e.g. parents' perceptions of behavioural interventions), this method presents

the opportunity to evaluate understudied areas of research (such as childhood internalizing disorders) and may determine whether further investigation in a naturalistic or clinical context is warranted. The analogue methodology used in the present study allowed for manipulation of child age and gender, while controlling for symptom severity and other confounding factors.

Childhood Anxiety

Description, prevalence, gender and age of onset

Anxiety disorders are the most prevalent psychiatric disorders in childhood with prevalence rates ranging from 5.7% to 17.7%, as estimated by epidemiological studies on community samples (Costello & Angold, 1995; Ollendick, Grills & Alexander, 2001). Among the anxiety disorders, separation anxiety, specific phobia, overanxious disorder/generalized anxiety disorder and social phobia occur most commonly in children and adolescents, while OCD and PTSD appear to be less common (Last, Perrin, Hersen, & Kazdin, 1992; Costello & Angold, 1995). The incidence of anxiety disorders has been found to be higher for girls after adolescence (Last et al., 1992; Manassis, 2000) and among older children (Ollendick, Grills, & Alexander, 2001). The age of onset for specific anxiety disorders, however, varies. For example, separation anxiety disorder, overanxious disorder and specific phobia have been found to have relatively early ages of onset (i.e. from 6 to 8 years of age), whereas the ages for the onset of social phobia and panic disorder have been shown to be later (i.e. from 11 to 14 years of age) (Last et al., 1992; Ost & Treffers, 2001). Nonetheless, problems with excessive shyness and social anxiety/withdrawal may appear earlier and persist in a child's life.

Origins and Development of Child Anxiety

An integrated model of the development of childhood anxiety has begun to emerge acknowledging the role of physiological, genetic predispositions (i.e. child temperament) and social, environmental influences (i.e. parent-child attachment) (Chorpita & Barlow, 1998; Manassis & Bradley, 1994; Rubin & Mills, 1991). A temperamental trait that has been recognized in theoretical models of child anxiety is behavioural inhibition. Behavioral inhibition (BI) in children, which has been defined as the tendency to withdraw, cease play and vocalization, and retreat from or avoid interactions with unfamiliar people and events (Kagan, Reznick, Clarke, Snidman & Garcia-Coll, 1984), has been shown to be a risk factor for the development of child anxiety. Behaviourally inhibited infants have been found to be more cautious, shy and socially inhibited at school age (Kagan, Reznick, & Snidman, 1987; Reznick et al., 1986). Furthermore, longitudinal studies have demonstrated that behaviourally inhibited children are more likely than not-inhibited children (i.e. low BI) to develop multiple anxiety disorders, avoidant disorder and separation anxiety disorder (Biederman et al., 1993; Biederman et al., 1995).

The literature on childhood anxiety has recognized the influence of the social environment and the importance of family factors in the development and maintenance of child anxiety (Barrett, 2000; Rapee, 1997). Parenting behaviours such as overcontrol, overprotection, modeling or reinforcement of anxious behaviour, rejection, and lack of warmth have been associated with anxiety in children (see Ginsburg & Schlossberg, 2002). More recent studies have also implicated parental cognitions (i.e. expectations) in contributing to and maintaining children's anxious behaviour (Kortlander, Kendall &

Mindel-Panichelli, 1997). The influence of parental factors on child anxiety suggests that interventions focusing on or involving parents may be an important component in the treatment of child anxiety.

Treatments for Child Anxiety

Similar to treatments for most other clinical disorders, treatments for child anxiety can be divided into two basic categories: pharmacological (medication) and psychosocial (e.g. cognitive-behavioural therapy). Research on pharmacological treatments supports the use and effectiveness of medication in treating children with anxiety problems (see Walkup, Labellarte & Ginsburg, 2002). Medication treatments range from the tricyclic antidepressants (e.g. imipramine), which have shown limited positive effects, to other drugs such as the benzodiazepines (e.g. clonazepam). The current medications of choice, however, are the selective serotonin reuptake inhibitors (SSRIs; e.g. fluoxetine, fluvoxamine, sertraline, paroxetine) which have been supported by controlled clinical trials confirming their effectiveness in treating childhood anxiety. For example, a double-blind, placebo controlled study on children and adolescents with separation anxiety disorder, social phobia or generalized anxiety disorder found that 76% of children on fluvoxamine showed clinical improvement on the Clinician Global Impression-Improvement scale (CGI) compared to 29% of children on placebo (RUPP Anxiety Study Group, 2001). Similarly, a growing number of clinical trials on fluoxetine and sertraline have provided support for the efficacy of these medications in treating children with separation anxiety, social phobia and generalized anxiety disorder (e.g. Birmaher et al., 1994; RUPP Anxiety Study Group, 2001). Nevertheless, as discussed below, these rates of improvement are generally lower than rates from trials of psychosocial treatments.

The empirical literature on psychosocial interventions in the treatment of child anxiety has primarily consisted of individual cognitive-behavioural therapy (CBT) for the child. Research from randomized controlled trials has documented the efficacy of child-focused CBT in reducing child anxiety (e.g. Kendall, 1994; Ollendick & King, 1998). Kendall (1994) conducted the first randomized clinical trial investigating the effectiveness of an individual, child-focused CBT against a waitlist control condition. Forty-seven children (aged 9 to 13 years) diagnosed with an anxiety disorder (e.g. overanxious disorder, separation anxiety disorder) were randomly assigned to the CBT condition and waitlist control condition. Posttreatment results revealed that 64% of treated children no longer met diagnostic criteria for an anxiety disorder compared with 5% of children in the waitlist condition, and these effects were maintained at 1-year follow-up (Kendall, 1994).

In recent years, parent-focused components of treatment have gained increased research and clinical attention (e.g. Barrett, 1998; Barrett, Dadds, & Rapee, 1996; Cobham, Dadds, & Spence, 1998; Dadds, Spence, Holland, Barrett, & Laurens, 1997). Family-based interventions and parental involvement in children's treatment have been demonstrated to improve children's symptoms of anxiety and depression (e.g. Mendlowitz, Manassis, Bradley, Scapillato, Meizitis, & Shaw, 1999). These combined treatments involving both the parent and child have shown greater improvement in children's emotional well-being compared to parent-only and child-only interventions (Mendlowitz et al., 1999). While recent studies have reported marginal superiority of parental involvement in treatment compared with child-based treatment (Barrett, 1998; Spence, Donovan, & Brechman-Toussaint, 2000), previously discussed studies

comparing family-based CBT and individual child-focused CBT have revealed the effectiveness of family-based treatment over child-focused treatment alone (Barrett et al., 1996).

In the randomized controlled trial by Barrett et al. (1996), the effectiveness of child-focused CBT and CBT plus FAM were compared against a WL control condition for the treatment of childhood anxiety. Seventy-nine children (45 boys, 34 girls) aged 7 to 14 years were randomly assigned to one of the three treatment conditions and intervention measures were evaluated at posttreatment, and at 6- and 12-months follow-up. All children met criteria for an anxiety disorder (i.e. overanxious disorder, separation anxiety disorder, social phobia). At posttreatment, 69.8% of children who received treatment no longer met DSM-III-R criteria for a current anxiety disorder compared to 26.0% of children in the WL control condition. A significantly greater percentage of children in the CBT + FAM group no longer met diagnosis for an anxiety disorder (84.0%) compared to the CBT-only group (57.1%). At 12-months follow-up, the difference between the two treatment groups was, again, significant, with 95.6% of children who received CBT + FAM no longer meeting diagnostic criteria compared to 70.3% of children who participated in CBT alone. As noted previously, younger children and girls were reported to respond better to the CBT + FAM intervention, while no differences across treatments were found for older children and boys.

The inclusion of a family-training component in treatment appears to have additional benefits that seem to be maintained in the long-term. Although research has compared combined parent-child interventions against individual interventions, less is known about the relative effects of the parent-focused and child-focused components, per

se, within a comprehensive, multi-modal intervention program. The focus of the present study was on a parent-focused intervention and child-focused intervention for the treatment of child anxiety.

Treatment Acceptability for Child Anxiety: The Influence of Child Age and Gender

Treatment acceptability is an important theoretical and practical concept that has applied implications for treatment utilization, treatment adherence, and treatment program development. Perceptions of the acceptability of treatments have been shown to be influenced by numerous characteristics associated with the treatment, rater and child. Although the impact of these factors has been recognized in the literature, little research has clearly demonstrated the effects of child characteristics such as child age and gender on judgments of acceptability. Findings on the influence of child age and gender on treatment acceptability have been inconsistent and mixed (e.g. Tingstrom et al., 1989; Phares et al., 1996). Furthermore, most of the research on treatment acceptability has been conducted on child externalizing disorders involving aggression and other disruptive behaviours within the educational context. In contrast, with the exception of one study on treatment attitudes regarding child social anxiety (Chavira et al., 2003), few studies exist in the area of treatment acceptability and internalizing disorders (e.g. Gullone & King, 1991; Miller et al., 2002; Tarnowski et al., 1992). No published research, to date, has evaluated and compared the acceptability of parent-focused treatment, child-focused treatment and medication for childhood anxiety.

The primary objective of the present study was to examine the impact of child age and gender on adults' perceptions of acceptability of three types of treatment for child anxiety. First, it was hypothesized that parent-focused psychosocial treatment would be

rated as more acceptable for younger children than older children because parents are perceived to be more responsible and accountable for their younger children's problem behaviours, and because of differences in parents' attributions for younger and older children's misbehaviours (Gretarsson & Gelfand, 1988). Parent-focused treatment was also hypothesized to be rated as more acceptable for girls than for boys given the gender differences due to socialization in parenting, and findings suggesting that anxious girls show a greater response to family-based treatment (Barrett et al., 1996). Second, child-focused treatment was hypothesized to be rated as more acceptable for boys and for older children due to parents' encouragement of independence in boys, and the greater perceived responsibility of older children (e.g. 13 years of age) for their behaviour. Finally, consistent with previous research findings (e.g. Mariani & Freeman, 2003; Pisecco, Huzinec, & Curtis, 2001), medication treatment was hypothesized to be rated as more acceptable for boys than for girls. Given the greater public concern over the increasing rates of prescriptions of psychotropic medication for young children (e.g. Zito, Safer, dosReis, Gardner, Boles, & Lynch, 2000), and the concerns regarding the impact of psychotropic medication on the brain development of young children, it was also hypothesized that medication treatment would be less acceptable for younger than older children. Across child age and gender, it was hypothesized that psychosocial treatments would be viewed as more acceptable than medication.

Primary Research Questions

Do child age and gender influence adults' perceptions of acceptability of parent-focused psychosocial treatment, child-focused psychosocial treatment, and medication treatment for child anxiety?

Hypothesis 1:

Parent-focused psychosocial treatment was predicted to be rated as more acceptable for younger children compared with older children.

Hypothesis 2:

Child-focused psychosocial treatment was predicted to be rated as more acceptable for older children compared with younger children.

Hypothesis 3:

Parent-focused psychosocial treatment was predicted to be rated as more acceptable for girls compared with boys.

Hypothesis 4:

Child-focused psychosocial treatment was predicted to be rated as more acceptable for boys compared with girls.

Hypothesis 5:

Medication treatment was predicted to be rated as less acceptable for younger children compared with older children.

Hypothesis 6:

Medication treatment was predicted to be rated as more acceptable for boys compared with girls.

A secondary objective of the present study was to compare ratings of acceptability for psychosocial treatments (parent-focused and child-focused) versus medication treatment.

Hypothesis 7:

Parent-focused and child-focused psychosocial treatments were hypothesized to be rated as more acceptable than medication treatment for both younger and older boys and girls.

Finally, the present study explored the relationship between adults' beliefs about the causes of child anxiety problems (i.e. extent to which parenting or biological/genetic factors are thought to cause child anxiety disorders), and ratings of acceptability for parent-focused psychosocial treatment, child-focused psychosocial treatment, and medication treatment.

Method

Participants

Participants were 416 introductory psychology students from the University of Manitoba. The sample was comprised of 176 males and 240 females ranging from 17 to 53 years of age (males: $M = 20.71$, $SD = 4.78$); females: $M = 21.21$, $SD = 5.70$). The majority of respondents reported their ethnic background as Caucasian (see Table 1 for further information regarding ethnicity of this sample). Six respondents did not report their ethnicity. Thirty-two of the participants were parents (7.7%). Among the 384 participants who did not have children, 69.3% reported definite plans to have children, 25.5% indicated tentative plans to have children, 2.3% indicated no plans to have children, and 2.9% failed to provide information regarding their future family plans.

Participants were asked to rate the extent of their experience interacting with younger children (i.e. aged 5 to 10 years) and older children (i.e. aged 12 to 16 years) on a 10-point scale ranging from "very little" to "a lot." The average ratings of participants'

experience with younger and older children were 6.91 ($SD = 2.70$) and 6.54 ($SD = 2.64$), respectively. Sources of experience included having younger siblings, having family friends with children, babysitting, coaching, volunteering with children, and tutoring. Respondents were asked to indicate whether they or their family members had problems with anxiety, and whether they had ever received counseling or used medication for anxiety, depression or other mental health problems. This information is reported in Table 1.

Materials

Case Descriptions. Participants read written case descriptions of either a 6- and 13-year-old boy or a 6- and 13-year-old girl exhibiting anxious behaviour. Symptoms of anxiety included extreme shyness, social inhibition, and excessive worrying, and reflected symptoms of social anxiety and generalized anxiety disorder. For example, the cases described the anxious child as being very shy and quiet, having few friends, being fearful about speaking in class, and worrying about things and other people. The age and gender of the child were manipulated in the cases; however, other details in the case descriptions were parallel across cases (See Appendix A).

The case descriptions were pilot tested to determine whether they depicted symptoms that were perceived as clinically significant, warranting intervention, realistic and age-appropriate, and to ascertain whether the cases were perceived as similar in severity. A sample of eight graduate students, clinicians and other mental health professionals responded to questions on a 10-point rating scale pertaining to the 6- and 13-year-old male and female case vignettes. Mean ratings for each age group and gender

Table 1

Demographic Information on Ethnicity, Medication use, Counseling and Problems with Anxiety (n = 416)

Variable	n	(%)
Ethnic background		
Caucasian	291	(70.0)
Asian	71	(17.1)
African	11	(2.6)
Aboriginal	10	(2.4)
Other (e.g. Hispanic, Indian, Pakistan)	27	(6.5)
Not reported	6	(1.4)
Problems with anxiety		
Mild	56	(13.5)
Moderate	73	(17.5)
Severe	23	(5.5)
Very severe	7	(1.7)
Medication use for		
Depression	20	(4.8)
Anxiety	16	(3.8)
Other mental health problem	8	(1.9)
Counselling received for		
Depression	30	(7.2)
Anxiety	28	(6.7)
Other mental health problem	9	(2.2)
Family member with anxiety problems	84	(20.2)

revealed that the anxiety problems were perceived to be clinically significant, warranting intervention, and falling between moderate and very severe. The male and female case descriptions for both ages were also perceived to be realistic and age-appropriate. All of the respondents distinguished both the male and female case vignettes in terms of age (younger vs. older).

Treatment Descriptions. Participants read descriptions of three treatments for child anxiety: parent-focused and child-focused psychosocial treatments, and medication. The parent-focused treatment was directed toward the parents of the anxious child, teaching parents how they can help their child manage his/her anxiety (e.g. encouraging the child to approach the feared situation, helping their child think more realistically about anxiety-arousing situations) and develop their own confidence as parents in handling situations (Barrett et al., 1996) (See Appendix B). The child-focused treatment focused directly on the anxious child, teaching the child strategies to manage his/her anxiety (e.g. increasing exposure to the feared situation, changing anxiety-producing thoughts) (Kendall, 1994) (See Appendix C). The medication treatment described the use of medications such as the selective serotonin reuptake inhibitors (e.g. fluvoxamine, fluoxetine) to reduce levels of anxiety to help the child approach feared situations (See Appendix D).

The three treatment descriptions were pilot tested in a sample of 6 clinical graduate students and one psychiatrist. Piloting was done to ensure that the treatments provided adequate information and were representative of different types of treatment for child anxiety. All of the respondents rated the parent-focused and child-focused treatments as being adequate and representative. The medication treatment was also

judged as being adequate and representative of pharmacological interventions for child anxiety by 6 of 7 respondents. The parent-focused treatment and child-focused were rated as equally complex. All three treatment descriptions were perceived as distinct approaches to treating child anxiety.

Measures

Treatment Evaluation Inventory (TEI; Kazdin, 1980a). The Treatment Evaluation Inventory (TEI; Kazdin, 1980a) was used to measure treatment acceptability. The TEI assesses the acceptability of treatment in terms of acceptability, fairness, suitability and perceived effectiveness. The scale consists of 15 items rated on a 7-point scale with anchor points varying for each item. For example, one item reads “How acceptable do you find this treatment to be for the child’s problem behavior?” and is rated from 1 (*not at all acceptable*) to 7 (*very acceptable*). Another item reads “Overall, what is your general reaction to this form of treatment?” and responses range from 1 (*very negative*) to 7 (*very positive*). A total score is derived by summing all items and summed scores range from 15 to 105. Higher scores reflect greater treatment acceptability. The TEI has been shown to assess a single underlying dimension of acceptability (e.g. Kazdin, 1980a), and has been used extensively in analogue studies involving student populations (e.g. Cross Calvert & McMahon, 1987; Kazdin, 1980a; Tingstrom et al., 1989). The measure has been shown to discriminate interventions based on acceptability (Kazdin, 1980a, 1980b; Kazdin et al., 1981) and has good internal consistency with alpha coefficients ranging in previous studies from 0.89 to 0.97 (see Finn & Sladeczek, 2001). The alpha coefficients for this study ranged from 0.93 to 0.95 when the measure was completed with reference

to parent-focused, child-focused and medication treatments. The TEI is presented in Appendix E.

Treatment Ranking and Refusal Form. Participants were asked to rank the treatments in terms of which one they would prefer if they had a 6- or 13-year-old son or daughter who was having problems with anxiety. Individuals indicated their preference of the three treatments using a rating scale from (1) *most preferred* to (3) *least preferred*. Respondents were also asked to indicate any treatments they would decline. The Treatment Ranking and Refusal Form is presented in Appendix F.

Child Anxiety Beliefs Scale. Beliefs regarding the causes of child anxiety were assessed on a rating scale that was developed for the present study for exploratory purposes. The scale is comprised of items reflecting biological, parenting, and other environmental causes of child anxiety problems. A sample item reflecting a biological cause is "Genetic factors are important in causing child anxiety." Beliefs pertaining to parenting and environmental factors include questions such as "Excessive control of the child's behaviour by parents is an important factor in causing child anxiety" and "Child anxiety disorders result from traumatic experiences or stressful life events," respectively. Scores for each item range from 1 (Disagree) to 7 (Agree) and each of the three subscales is an average rating involving selected items. Higher scores reflect a higher endorsement of a particular set of beliefs regarding causes of anxiety. Details regarding the factor analysis of these items and the reliability of the subscales are presented in the Results section. (See Appendix G).

Procedure

The author and research assistant recruited students from introductory psychology classes. Participants were informed that the purpose of the study was to examine individuals' opinions about different treatments for child anxiety. Questionnaires were completed in group sessions and participants received partial credit toward their introductory psychology course for completing the survey.

Each questionnaire package contained a demographic information sheet; case descriptions of a 6-year-old and 13-year-old male or female anxious child; and descriptions of three treatments for child anxiety (parent-focused, child-focused, medication), each followed by the Treatment Inventory (TEI) measure. Following the TEI forms for the three different treatments was a treatment ranking and refusal form, and finally, the Child Anxiety Beliefs Scale. Participants were randomly assigned to read two of the four hypothetical cases describing an anxious boy or girl at 6 and 13 years of age. The order of the case descriptions was counterbalanced for age. For each case vignette, the treatment descriptions were also presented in a counterbalanced order to control for any sequence effects. An equal number of males and females were assigned to read the male and female case descriptions. For all participants, the Child Anxiety Beliefs Scale was completed at the end after the TEI (for each of the three treatments for the younger and older case descriptions) and treatment ranking and refusal form.

Results

Preliminary Analyses

TEI scores were prorated when there were missing items on this scale. Of the 2,496 total TEI scores (i.e. 416 participants X 6 TEI ratings per participant – three with

reference to the three treatments for the younger case vignette, and three with reference to the three treatments for the older case vignette), 13 (0.52%) scores were prorated due to missing items. There was a range of 1 to 4 missing items on the TEIs with missing items.

To examine whether there were differences between male and female raters on their TEI responses, a 3-way, mixed-model analysis of variance (ANOVA) was conducted with child age (6-year-olds, 13-year-olds) and treatment type (parent-focused, child-focused, medication) as within-subjects variables, and child gender and rater gender as between-subjects variables. The analysis indicated no significant main effect for rater gender, $F(1, 412) = .58, p = .45$, nor any significant interactions involving rater gender [Rater gender X Treatment type, $F(1.6, 656.8) = 2.90, p = .07^1$; Rater gender X Child age, $F(1, 412) = .82, p = .37$; Rater gender X Child gender, $F(1, 412) = .26, p = .61$; Rater gender X Child age X Child gender, $F(1, 412) = .11, p = .74$; Rater gender X Treatment type X Child gender, $F(1.6, 656.8) = .97, p = .36$; Rater gender X Treatment type X Child age, $F(2, 824) = 1.18, p = .31$; Rater gender X Treatment type X Child age X Child gender, $F(2, 824) = 1.45, p = .24$]. Thus, responses from male and female raters were collapsed together in subsequent analyses.

Primary Analyses

A 2 (child age) X 2 (child gender) X 3 (treatment type) mixed-model ANOVA was used to examine the impact of child age and gender on ratings of treatment acceptability for the three types of interventions (parent-focused, child-focused, and medication). The independent variables were child age, child gender and treatment type. Child age (6-year-olds, 13 year-olds) and treatment type (parent-focused, child-focused,

¹ Follow-up analyses revealed that females rated child-focused treatment higher than males ($d = .22$)

medication) served as within-subjects variables, and child gender served as a between-subjects variable. Ratings on the TEI served as the dependent variable.

An alpha level of .05 was employed for the overall 3-way, mixed-model ANOVA and follow-up analyses of simple main effects. When the assumption of sphericity was violated, the Huynh-Feldt epsilon correction was utilized and reported, where appropriate. For the post hoc pairwise comparisons, a Bonferroni correction was used to control for the familywise error (alpha of $.05/3 = .017$).

The 3-way, mixed-model ANOVA revealed significant main effects for child age, $F(1, 414) = 8.19, p = .004$, and treatment type, $F(1.6, 659.1) = 609.34, p < .001$, but not for child gender, $F(1, 414) = .014, p = .91$. The main effects for child age and treatment type were qualified by a significant child age by treatment type interaction, $F(2, 828) = 53.03, p < .001$. None of the interactions involving child gender were found to be statistically significant [Child gender X Treatment type, $F(1.6, 659.1) = 2.66, p = .08$; Child gender X Child age, $F(1, 414) = .10, p = .76$; Child gender X Child age X Treatment type, $F(2, 828) = .73, p = .48$].

Because effects involving child gender were predicted in this study, the marginal Child gender X Treatment type interaction was followed up by conducting analyses of simple main effects for boys and girls separately. There was a significant effect for both boys, $F(1.6, 334.1) = 255.19, p < .001$, and girls, $F(1.6, 324.7) = 361.25, p < .001$. For the boys, post hoc pairwise comparisons indicated significant differences in treatment acceptability ratings between parent-focused treatment and medication, $t(207) = 17.10, p < .001$, and between child-focused treatment and medication, $t(207) = 18.05, p < .001$. No significant difference was found for parent-focused treatment versus child-focused

treatment, $t(207) = .54, p = .59$. Post hoc pairwise comparisons for girls revealed significant differences between parent-focused treatment and medication, $t(207) = 20.39, p < .001$, and between child-focused treatment and medication, $t(207) = 21.03, p < .001$. No significant difference was found for parent-focused treatment versus child-focused treatment, $t(207) = .21, p = .83$.

Viewing the Child gender X Treatment type interaction from the other direction, post hoc comparisons were conducted to compare ratings of treatment acceptability for boys versus girls for each treatment type. Analyses revealed no significant effects for child gender for parent-focused treatment, $F(1, 415) = .78, p = .38$, child-focused treatment, $F(1, 415) = 1.47, p = .23$, and medication treatment, $F(1, 415) = 2.21, p = .14$. To determine the magnitude of the differences in treatment acceptability ratings between boys and girls, effect sizes (d values) reflecting standardized mean differences between independent groups were calculated using the formula provided by Cohen (1988). The effect sizes for comparisons of mean ratings of treatment acceptability between boys and girls were .09 for parent-focused treatment, .12 for child-focused treatment, and .15 for medication treatment. The means and standard deviations for TEI scores for the three types of treatment for boys and girls (collapsed across rater gender and child age) are presented in Table 2.

The significant Child age X Treatment type interaction (see Figure 1) was followed-up by conducting simple main effects analyses to compare mean ratings of treatment acceptability across the three treatment types at each level of child age. Analyses revealed a significant effect for treatment type for the younger case vignettes,

Table 2

Means (and Standard Deviations) for TEI Scores for Parent-focused, Child-focused, and Medication Treatment for Boy and Girl Case Vignettes

Treatment	Boys (n = 208)			Girls (n = 208)		
	Parent	Child	Medication	Parent	Child	Medication
<i>M</i>	79.68 _a	79.17 _a	53.24 _b	80.86 _a	80.67 _a	50.86 _b
(<i>SD</i>)	(13.95)	(12.60)	(16.44)	(13.05)	(12.70)	(15.92)

Note. Higher scores indicate greater acceptability. Means with different letter subscripts indicate significant differences ($p < .001$).

$F(1.7, 697) = 590.18, p < .001$, and for the older case vignettes, $F(1.7, 683.6) = 467.00, p < .001$.

First, considering the younger case vignettes, post-hoc pairwise comparisons indicated significant differences in treatment acceptability ratings across all three treatments. Both parent-focused and child-focused treatments were rated as more acceptable than medication treatment ($ps < .001$). Also, as expected for younger children, parent-focused treatment was rated as more acceptable compared to child-focused treatment ($p < .001$). The means and standard deviations for TEI scores for the three types of treatment for younger children (collapsed across rater gender and child gender) are presented in Table 3. To determine the magnitude of the differences in treatment acceptability ratings between the treatment types, effect sizes (d values) reflecting standardized mean differences for matched pairs were calculated using the formula provided by Cohen (1988, p. 48). The effect sizes for comparisons of mean ratings of treatment acceptability between parent-focused treatment and medication treatment, and

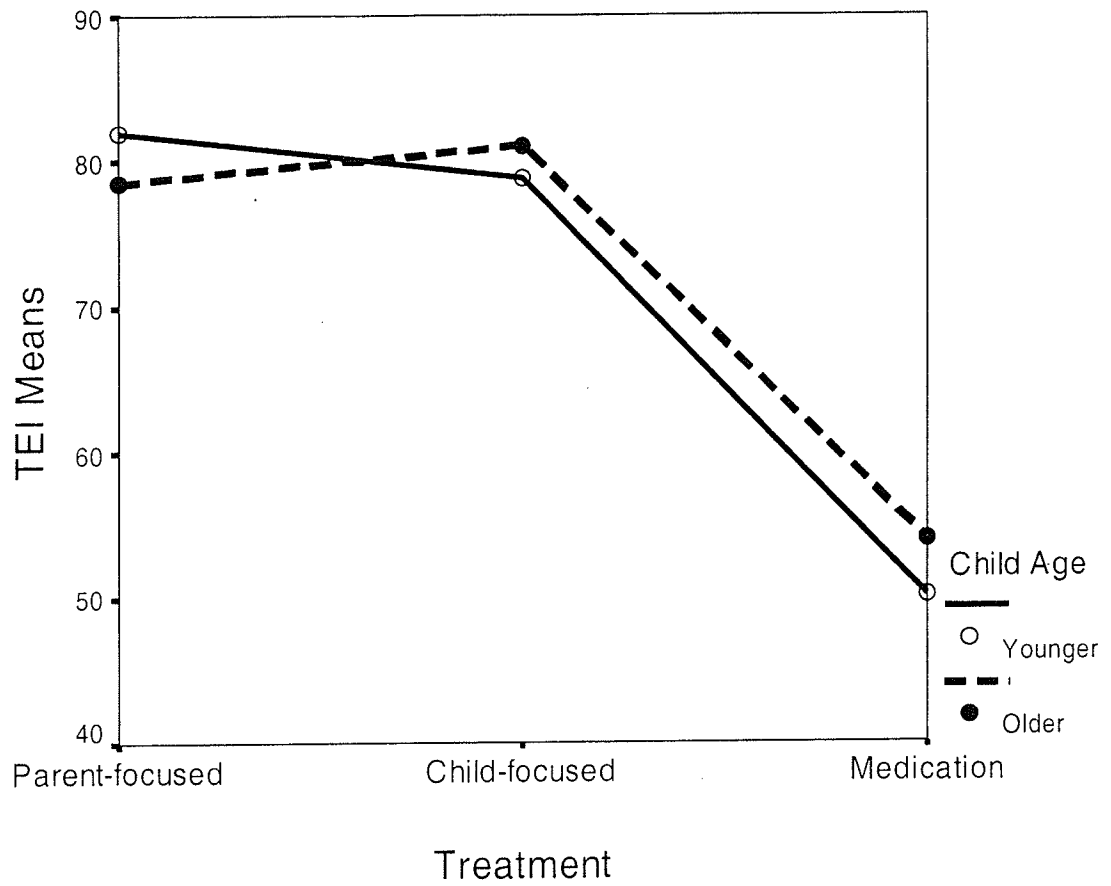


Figure 1. Mean TEI Scores for Parent-focused, Child-focused, and Medication Treatment as a Function of Child Age and Treatment Type

Table 3

Means (and Standard Deviations) for TEI Scores for Parent-focused, Child-focused, and Medication Treatment for Younger and Older Child Case Vignettes

Treatment	Younger Child (n = 416)			Older Child (n = 416)		
	Parent	Child	Medication	Parent	Child	Medication
<i>M</i>	82.01 _{a,1}	78.78 _{b,1}	50.11 _{c,1}	78.53 _{a,2}	81.06 _{b,2}	53.98 _{c,2}
<i>(SD)</i>	(14.10)	(14.18)	(17.52)	(14.76)	(13.38)	(16.84)

Note. Higher scores indicate greater acceptability. Means with different letter subscripts indicate significant treatment differences ($p < .001$) within each age group. Means with different numeral subscripts indicate significant treatment differences ($p < .001$) between younger and older age groups for each treatment type.

between child-focused treatment and medication treatment were 1.34 and 1.28, respectively. The effect size for the comparison between parent-focused treatment and child-focused treatment was .21.

Examining responses to the older case vignettes, post hoc comparisons indicated that both parent-focused and child-focused treatments were rated more acceptable than medication treatment ($ps < .001$). Also, as expected for older children, treatment acceptability ratings for child-focused treatment were higher than treatment acceptability ratings for parent-focused treatment ($p = .001$). The means and standard deviations for TEI scores for the three treatments for older children are shown in Table 3. Effect sizes were calculated to determine the magnitude of the differences in treatment acceptability ratings between the treatment types. The effect sizes for comparisons between parent-focused treatment and medication, and between child-focused treatment and medication

were 1.09 and 1.24, respectively. The effect size for the comparison between parent-focused and child-focused treatments was .17.

Finally, post-hoc pairwise comparisons were conducted to compare ratings of younger versus older case vignettes for each treatment type. Mean TEI scores differed significantly between the two age groups for each type of treatment. As expected, parent-focused treatment was rated as more acceptable for younger children compared to older children, child-focused treatment was rated as more acceptable for older children compared to younger children, and medication treatment was rated as less acceptable for younger children compared with older children (all $ps < .001$). Effect sizes for comparisons between the younger and older case vignettes were .34 for the parent-focused treatment, .21 for the child-focused treatment, and .34 for the medication treatment.

Analyses for Treatment Ranking

After completing the TEI for each of the three treatments, participants were asked to rank-order their preference of the treatments. Four hundred and one of the 416 participants completed the Treatment Ranking form for the younger case vignettes. Five completed the form incorrectly and 10 individuals did not provide information regarding their treatment rankings. For the older case vignettes, 405 participants completed the ranking form, 3 completed the form incorrectly, and 8 failed to provide information. Thus, treatment ranking data were provided by 401 participants in response to the younger case vignettes, and 405 participants in response to the older case vignettes. Treatment ranking data was examined separately for responses to younger versus older cases, but collapsed across child gender.

When asked to indicate their first choice of treatment for the *younger* child case description, 52.1% of the participants selected parent-focused treatment, 43.1% selected child-focused treatment, and 4.7% selected medication treatment. Chi square tests were conducted to examine whether there were differences among the proportions of individuals who ranked each of the three treatments as their first choice. Results showed that the proportion of individuals who ranked parent-focused treatment as their first choice of treatment was not significantly different than the proportion of individuals who ranked child-focused treatment first, $\chi^2(1, N = 382) = 3.39, p = .07$. Both the proportion of individuals selecting parent-focused treatment as their first choice and child-focused treatment as their first choice were significantly greater than the proportion of individuals that selected medication as their first choice of treatment, $\chi^2(1, N = 228) = 158.33, p < .001$ and $\chi^2(1, N = 192) = 123.52, p < .001$, respectively.

When asked to rate their first-choice of treatment for the *older* case vignettes, 70.4% of individuals selected child-focused treatment as their first choice, 21.7% selected parent-focused treatment, and 7.9% selected medication treatment. Chi square analyses were performed to test the differences among the proportions of individuals who selected parent-focused treatment, child-focused treatment, or medication as their first choice. The proportion of individuals who selected child-focused treatment as their first choice was significantly greater than the proportion of individuals who selected parent-focused treatment, $\chi^2(1, N = 373) = 104.05, p < .001$. Both parent-focused treatment and child-focused treatment were selected as a first choice by a greater proportion of individuals compared with the proportion of individuals who selected medication treatment, $\chi^2(1, N = 120) = 26.13, p < .001$ and $\chi^2(1, N = 317) = 201.92, p < .001$, respectively.

Frequencies for the treatment rankings for the younger and older case vignettes are presented in Table 4.

Table 4

Treatment Ranking Frequencies for Younger Case Vignettes (n=401) and Older Case Vignettes (n=405)

Ranking	Treatment Type					
	Parent-focused		Child-focused		Medication	
	%	(n)	%	(n)	%	(n)
Younger Case Vignette						
First	52.1	(209)	43.1	(173)	4.7	(19)
Second	40.6	(163)	51.9	(208)	7.5	(30)
Third	7.2	(29)	5.0	(20)	87.8	(352)
Older Case Vignette						
First	21.7	(88)	70.4	(285)	7.9	(32)
Second	61.2	(248)	24.2	(98)	14.6	(59)
Third	17.0	(69)	5.4	(22)	77.5	(314)

Note. Values in parentheses represent actual frequencies

Analyses for Treatment Refusal

After ranking the three treatments, participants were asked to indicate whether they would refuse any of the three treatments if they had a child of similar age with similar problems described in the case vignettes. First, considering responses to the *younger* case vignettes, 256 of the 406 (63.1%) participants who completed the ranking form indicated they would decline one or more of the treatments if they had a 6-year-old child with anxiety problems. Of these respondents who reported they would refuse one or

more of the treatments, 93.0% indicated they would refuse only medication treatment, 3.9% indicated they would refuse only parent-focused treatment, and 2.0% indicated they would refuse only child-focused treatment. One individual reported that he/she would refuse both parent-focused treatment and medication; one reported that he/she would refuse both child-focused treatment and medication, and one indicated that he/she would refuse all three types of treatment.

Chi square analyses were conducted to determine whether there were differences among the proportions of individuals who refused treatment. Results revealed that a significantly higher proportion of individuals refused medication treatment compared with the proportion of individuals who refused parent-focused treatment, $\chi^2(1, N = 248) = 209.61, p < .001$, or child-focused treatment, $\chi^2(1, N = 243) = 223.41, p < .001$. No significant difference was found between the proportion of individuals who refused parent-focused treatment versus the proportion who refused child-focused treatment, $\chi^2(1, N = 15) = 1.67, p = .20$.

Four hundred participants out of 416 provided responses on treatment refusal for the *older* case vignettes. Among the 400 participants, 184 (46.0%) indicated refusing one or more treatments if they had a 13-year-old child with anxiety problems. Among the respondents who reported that they would refuse one or more of the treatments, 87.5% reported they would refuse only medication treatment, 7.1% reported they would refuse only parent-focused treatment, and 3.3% reported they would refuse only child-focused treatment. Three participants indicated they would refuse both parent-focused and medication treatments, and one individual indicated refusing all three types of treatment.

Chi square tests revealed that the proportion of individuals who reported they would refuse parent-focused treatment did not differ significantly from the proportion of individuals who reported refusing child-focused treatment, $\chi^2(1, N = 19) = 2.58, p = .11$. There was a significantly greater proportion of individuals who reported they would refuse medication treatment compared with those who reported refusing parent-focused treatment, $\chi^2(1, N = 174) = 122.89, p < .001$, or child-focused treatment, $\chi^2(1, N = 167) = 143.86, p < .001$. Frequencies on treatment refusal for the younger and older case vignettes are presented in Table 5.

Table 5

Frequencies of Treatment Refusal for Younger Case Vignettes (n=406) and Older Case Vignettes (n =400)

Case	Treatment				
	None	Parent-focused Only	Child-focused Only	Medication Only	More than one
<i>Younger Case Vignette</i>					
%	36.9	2.5	1.2	58.6	0.7
(n)	(150)	(10)	(5)	(238)	(3)
<i>Older Case Vignette</i>					
%	54.0	3.2	1.5	40.3	1.0
(n)	(216)	(13)	(6)	(161)	(4)

Note. Values in parentheses represent actual frequencies

Exploratory Analyses for Child Anxiety Beliefs Scale

Out of the total sample of 416 participants, one respondent failed to complete the measure of beliefs regarding child anxiety. Therefore, data were available for 415

participants. A principal components analysis with varimax rotation was conducted on the 10 items of the Child Anxiety Beliefs Scale. A three-factor solution appeared most appropriate based on eigenvalues that were greater than 1.00. The three factors accounted for 54% of the scale variance: Factor 1 (23%), Factor 2 (17%), and Factor 3 (14%). Items loading on Factor 1 reflected causal beliefs involving the parent-child relationship and stressful life events. Items loading on Factor 2 reflected causal beliefs involving parental overcontrol and overprotection, and children's diminished sense of control. Items loading on Factor 3 reflected beliefs about genetic, nervous system and temperament contributions to child anxiety. One item ("Child anxiety disorders are caused by early learning experiences which make children anxious") was omitted as it did not load consistently (i.e. above .40) on any factor. Factor Loadings for the items on the Child Anxiety Beliefs Scale are shown in Table 6.

Cronbach's alphas were calculated to determine the internal consistency for each of the three subscales. The Factor 1 subscale (3 items) showed good internal consistency; Cronbach's alpha for this subscale reflecting the parent-child relationship and life events was .80. Cronbach's alphas for the remaining two subscales were low to moderate: .56 for the Factor 2 subscale (3 items) reflecting parental overcontrol/overprotection and children's diminished sense of control, and .45 for the Factor 3 subscale (3 items) reflecting genetic, the nervous system and temperament. Scores for the three subscales were calculated by taking the mean scores of the items loading on each factor. Mean ratings for these subscales, which could range from 1 to 7, were 5.29 ($SD = 1.24$) for Factor 1, 5.27 ($SD = 0.94$) for Factor 2, and 4.98 ($SD = 0.89$) for Factor 3.

Table 6

Factor Loadings for Items on the Child Anxiety Belief Scale (n = 415)

Scale Items	Factor 1	Factor 2	Factor 3
8. Lack of a warm and caring relationship with parents is an important factor in causing child anxiety.	0.819	0.120	-0.010
9. Child anxiety disorders result from traumatic experiences or stressful life events.	0.801	0.026	0.137
10. Insecure early relationships with parents are important factors in causing child anxiety.	0.840	0.153	0.032
1. Excessive control of the child's behaviour by parents is an important factor in causing child anxiety.	0.055	0.752	0.166
3. Child anxiety disorders are caused by living in environments that reduce children's sense of control.	0.314	0.538	0.063
4. Overprotection by parents who are coping with an anxious child is an important factor in causing child anxiety.	-0.025	0.778	0.066
2. An overactive nervous system is an important factor in causing child anxiety.	0.037	0.143	0.737
5. Genetic factors are important in causing child anxiety.	-0.029	-0.061	0.770
7. A timid and fearful temperament is an important factor in causing child anxiety.	0.343	0.232	0.439
6. Child anxiety disorders are caused by early learning experiences which make children anxious.	0.275	0.331	-0.177

To examine the association between beliefs about child anxiety and ratings of treatment acceptability for the psychosocial interventions and medication, correlations between TEI scores (collapsed across child age and gender) and the three subscales on the Child Anxiety Beliefs Scale were calculated. Scores on Factor 1 (i.e. parent-child relationship/stressful life events) showed a small, positive correlation with ratings of acceptability for parent-focused treatment. Scores on Factor 2 (i.e. parental overcontrol/overprotection and children's diminished sense of control) were positively correlated with acceptability ratings for both parent- and child-focused treatments. Scores on Factor 3 (i.e. genetics/nervous system/temperament) were positively correlated with acceptability ratings for all three types of treatment. Neither factor reflecting psychosocial or environmental causes of anxiety were correlated with acceptability ratings for medication treatment. Beliefs about biological/genetic/temperament causes of anxiety were correlated with ratings of treatment acceptability for both psychosocial and medication treatments. Correlations between the Child Anxiety Beliefs subscales and TEI scores for the three treatments are presented in Table 7.

Table 7

Correlations between the Child Anxiety Beliefs Scale and TEI scores (n = 415)

	Treatment Type		
	Parent-focused	Child-focused	Medication
Factor 1	.15**	.09	-.07
Factor 2	.11*	.13**	-.008
Factor 3	.23****	.23****	.15**

*p < .05; **p < .01; **** p < .0001

Discussion

The primary objective of the present study was to examine the impact of child age and gender on individuals' evaluations of the acceptability of parent-focused psychosocial treatment, child-focused psychosocial treatment, and medication treatment for child anxiety. The findings from the present study provided support for the hypotheses regarding the impact of child age on treatment acceptability ratings, but not for child gender. Acceptability ratings for the psychosocial and pharmacological treatments differed for the younger and older child vignettes, but not across boys and girls.

Parent-focused Treatment versus Child-focused Treatment

First considering the psychosocial treatments for younger children, parent-focused treatment was rated as more acceptable than child-focused treatment. Also, a greater percentage of individuals selected parent-focused treatment as a first choice of treatment, although the proportion of those who selected parent- and child-focused treatments did not differ significantly. The greater acceptability of a parent-focused intervention for younger children fits well with a recent intervention study (Barrett et al., 1996) which compared the efficacy of individual cognitive-behavioral therapy and cognitive-behavioral therapy plus family anxiety management for the treatment of anxiety in children and adolescents. Individual cognitive-behavioral treatment involved directly teaching the child exposure and cognitive restructuring techniques, while the family component involved individual treatment and parent training in child management, parental anxiety management, and communication and problem-solving skills. At post-treatment, a greater percentage of younger children who received both individual

treatment and family management no longer met diagnostic criteria for an anxiety disorder compared to younger children who only received child-focused treatment. For the older children, however, the inclusion of the family management treatment component did not have an added benefit. A similar treatment study (Tracey, Mattis, Chorpita, Albano, Heimberg, & Barlow, 1998; as cited in Beidel, Turner & Morris, 2000) also found no advantage for the addition of parent involvement in a psychosocial intervention for adolescent social phobia. These findings suggest that the addition of a parent or family component to an intervention may be particularly important in treating younger children.

From a cognitive-developmental perspective, this can be explained by the different developmental levels, cognitive repertoires and information-processing capacities of children at different ages (Shirk, 1988). Developmental considerations in the treatment of younger children have recognized their lack of sophistication in cognitive functioning (e.g. analogical reasoning, self-evaluation), poorer recognition and understanding of different emotional states, greater orientation to present events, and greater reliance on the family system (Grave & Blissett, 2004; Piacentini & Bergman, 2001). As a result of young children's less-developed cognitive abilities such as their ability to engage in abstract or metacognitive thought (i.e. thinking about thinking), it seems that greater emphasis should be placed on parents to help younger children understand and participate in the treatment process. Parents have also been perceived to have greater responsibility for the development and treatment of younger as opposed to older children's behaviours (Phares et al., 1996). Due to the limited cognitive capacities of younger children (i.e. age six or less) and their dependence on parents, behavioural

approaches and parent involvement in interventions have been proposed as key components in the treatment of anxiety in early childhood (Barrett, 2000; Piacentini & Bergman, 2001). Given these reasons, it is not surprising that for younger children, programs directed at parents or interventions with a family-focus would be perceived to be more suitable and appropriate than individual child-focused treatment.

In terms of the acceptability of psychosocial treatments for older children, child-focused treatment was found to be more acceptable than parent-focused treatment. Consistent with this, individuals' rankings of treatment showed that a greater proportion of individuals indicated child-focused treatment as their first-choice of treatment compared with those who selected parent-focused and medication treatments. The greater acceptability of child-focused treatment for older children was expected given older children's cognitive capabilities of self-reflection, perspective-taking and causal reasoning, and their greater understanding of complex feelings and emotional states (Grave & Blissett, 2004; Nannis, 1988; Piacentini & Bergman, 2001). With their greater cognitive repertoire, older children may be perceived to be capable of recognizing their anxious feelings and changing their unrealistic thoughts; and therefore, competent in engaging in child-focused treatment.

Beyond the cognitive advancement of older children, the greater acceptability of child-focused treatment can also be explained by a developmental life stage perspective. Adolescence is a time of transformation in family relations as older children begin to assert their independence and autonomy from their parents and family. It is a period of cognitive, emotional and social changes, in addition to the emergence of parent-child conflict, as older children and adolescents desire greater individualism and less parental

involvement in their lives (Berger & Thompson, 1995). For these reasons, it is not surprising that child-focused treatment was found to be more acceptable than parent-focused treatment for older children.

Impact of Child Age on Treatment Acceptability

With regard to differences in treatment acceptability across child age, as predicted, parent-focused treatment was perceived to be more acceptable for younger children than older children. Support for this finding is demonstrated in similar research which has found behavioural contingencies to be more acceptable for treating internalizing and externalizing problems in younger children (Phares et al., 1996). It can be argued that behavioural contingencies (e.g. use of praise, positive reinforcement, time-out) are similar to parent-focused interventions in that parents are targeted to implement techniques and skills to treat and change child behaviour. In light of developmental considerations in treatment, the use of behavioural approaches and parental involvement has been recommended for the treatment of anxiety in younger children (Barrett, 2000; Piacentini & Bergman, 2001). Therefore, the greater acceptability of parent-focused treatment for younger children than older children was expected, given younger children's more limited cognitive-developmental abilities and their reliance on parents and the family.

For older children, however, treatment involving parents may be less essential due to adolescents' more sophisticated cognitive development, greater understanding of emotional states, and greater ability to understand future benefits of treatment procedures (Piacentini & Bergman, 2001). Compared to younger children, older children may be seen to be more capable of engaging in treatment because of their abilities to self-

evaluate and self-regulate their behaviour, challenge their irrational thoughts, and make causal judgments (Grave & Blissett, 2004). Older children are also perceived to have greater responsibility than younger children over their behaviour (Phares et al., 1996), and parents have been found to make more internal attributions for older children's misbehaviour than for younger children's misbehaviour (Dix et al., 1986; Gretarsson & Gelhand, 1988). These explanations support the study's predicted finding which showed child-focused treatment to be more acceptable for older children compared to younger children. Consistent with this, a recent meta-analysis on the efficacy of CBT interventions for antisocial behaviours concluded that child-focused interventions may be more effective for adolescents and older children than for younger children (Bennett & Gibbons, 2000). Cognitive-behavioural interventions for aggressive child problems tend to include treatment components such as self-monitoring, self-reinforcement, and cognitive restructuring which seem to be more appropriate for older children who are functioning at more advanced cognitive levels.

Cognitive-developmental differences in psychosocial interventions for children have been demonstrated in treatment studies on childhood social phobia involving social skills training and cognitive-behavioural interventions (Spence et al., 2000; Beidel et al., 2000). For example, Spence et al. (2000) found that younger socially phobic children (aged 7-9 years) experienced difficulty in understanding the concepts of "faulty" or "negative" thinking and "cognitive challenging." Although the treatment effects were not reported across age groups, Spence et al.'s study highlights the different cognitive-developmental levels between younger and older children, and provides some support to explain the greater acceptability of child-focused treatment in older children. Further,

research examining the efficacy of child-based CBT for maladaptive child behaviours (i.e. externalizing and internalizing problems) revealed that the magnitude of the effect of treatment for children functioning at a cognitive stage of formal operations (ages 11 – 13), was twice as large as the magnitude of the effect for children at less well-developed cognitive stages (ages 5 – 7 or ages 8 – 11) (Durlak, Fuhrman, & Lampman, 1991). Children with more advanced cognitive skills may benefit more from child-focused psychosocial intervention than children with less advanced skills. A recent review paper examining the developmental considerations for CBT in young children also acknowledged the greater benefits of CBT techniques for children 11 years and older than those between the ages of 5 and 11 (Grave & Blissett, 2004). The present study's finding on the greater acceptability of child-focused treatment for older children compared with younger children is consistent with these developmental considerations.

Also as predicted, medication was found to be less acceptable for younger children compared to older children. An explanation for this finding likely stems from the concerns about the potential adverse effects associated with medication. Societal concerns regarding the safety and efficacy of antidepressant medication use among children and adolescents have been at the forefront as seen in the recent health advisory warnings issued by Health Canada and the United States Food and Drug Administration regarding the use and benefits of selective serotonin reuptake inhibitors (SSRIs) (<http://www.fda.gov/bbs/topics/ANSWERS/2003/ANS01256.html>; http://www.hc-sc.gc.ca/english/protection/warnings/2004/2004_02.htm). Though public concerns regarding medication use apply to both children and adolescents, the lower acceptability of medication for younger children may reflect greater concerns regarding the potential

harmful impact of medication on younger children's physical and cognitive development. The low acceptability of medication found in this study was also congruent with the low proportion of individuals who ranked medication as their first choice of treatment for young anxious children. Consistent with the low acceptability and preference of medication, especially for younger children, a greater percentage of individuals indicated that they would refuse medication if they had a younger child (58.6%) compared to an older anxious child (40.3%).

Psychosocial Treatments versus Medication Treatment

As predicted, regardless of child age and child gender, psychosocial treatments overall were perceived to be more acceptable than medication. This is consistent with earlier research which has reported greater acceptability of psychological treatments over medication for other disorders such as adult anxiety (Walker et al., 2003; Deacon et al., 2003), adult depression (Banken & Wilson, 1992), child depression (Tarnowski et al., 1992), and childhood ADHD (Gage & Wilson, 2000; Power, Hess, & Bennett, 1995). A recent study examining parental attitudes of counseling and medication acceptability for childhood social anxiety also found more favorable attitudes for counseling than medication (Chavira et al., 2003). Treatment rankings from the present study also revealed both psychosocial treatments to be preferred over medication, which has been demonstrated in previous studies on anxiety disorders (Deacon et al., 2003; Walker et al., 2003; Walker, Vincent, Furer, Cox & Kjernisted, 1999).

Individuals in the present study generally perceived medication to be least acceptable in treating child anxiety. This finding is consistent with other treatment acceptability research using the TEI which also found the acceptability of medication to

be lower than psychological treatment (e.g. Banken & Wilson, 1992; Gage & Wilson, 2000; Kazdin, 1984; Liu et al., 1991). For example, mean ratings of treatment acceptability of medication for children with ADHD have been reported by parents to range between 45 and 47 (Gage & Wilson; Liu et al., 1991), which are comparable to the medication acceptability ratings of 50 and 54 found in this study for younger and older children, respectively. In a previous study which evaluated the acceptability of a parent-training program using the TEI, Cross Calvert and McMahon (1987) divided TEI ratings into two categories: “negative” (i.e. scores from 15 to 60) and “positive” (i.e. scores from 60 to 105). Utilizing this categorization system, ratings of medication acceptability in this study fell in the “negative” or unacceptable range and were shown to be consistently lower than ratings of acceptability for parent-focused treatment (i.e. scores ranging from 78 to 82) and child-focused treatment (i.e. scores ranging from 78 to 81). The psychosocial interventions, overall, fell in the “positive” range for treatment acceptability. Furthermore, the large effect sizes between psychosocial treatments and medication obtained in this study (i.e. effect sizes ranging from 1.09 to 1.34) were comparable to the effect sizes between psychological treatments and medication found in earlier treatment acceptability studies using the TEI (e.g. Gage & Wilson: effect size of 2.31; Kazdin, 1984: effect size of 1.02; Liu et al., 1991: effect size of 1.13).

While psychosocial treatments were generally found to be more acceptable than medication, the magnitude of the difference in treatment acceptability between the psychosocial treatments was small. This is not surprising given that the behavioural strategies (e.g. exposure to anxiety) and cognitive techniques (e.g. changing unrealistic thoughts) were parallel in the descriptions of the parent-focused and child-focused

treatments. Both of these psychosocial treatments were also found to be highly preferable as treatments of choice for both young anxious children and adolescents. Further, there were no overall differences in rates of refusal between the parent-focused and child-focused treatments for both younger and older children; however, it is interesting to note that there was a slightly larger percentage of individuals who refused parent-focused treatment compared to those who refused child-focused treatment for both younger and older children. Ultimately, it can be inferred that some parents may be reluctant, themselves, to be a focus of treatment for their child's problems, perhaps for fear of being blamed for the child's difficulties. Therefore, despite the acceptability of both parent- and child-focused treatments, it is important to clearly convey to parents the rationale for including them in treatment.

The Impact of Child Gender on Treatment Acceptability

Child gender was expected to influence treatment acceptability ratings; however, the hypotheses were not supported in the present study. Ratings of treatment acceptability did not significantly differ for boys versus girls. Effect sizes for the comparison between mean TEI ratings for boys versus girls across the three types of treatment were small, ranging from .09 to .14. Although slightly higher acceptability ratings of medication were found for boys compared to girls (53 vs. 51), this pattern was not found to be significant ($p = .14$). For both boys and girls, psychosocial treatments were found to be more acceptable than medication. These findings contrast with previous findings for children with ADHD which have reported greater acceptability of behavioral interventions for girls compared with boys, and greater acceptability of medication for boys compared with girls (Pisecco et al., 2001). It is important to note, however, that Pisecco et al.'s

(2001) study examined treatment acceptability in a sample of teachers who had knowledge and experience in working with children with ADHD. The failure to find gender differences in the present study could be related to the undergraduate sample. The acceptability of treatments for various childhood problems have been shown to vary among different populations such as parents versus teachers (e.g. Norton et al. 1983; Phares et al., 1996) and parents versus children (e.g. Kazdin, 1984; 1986). Given that most individuals in this study were unmarried and childless, it is suspected that differences based on child gender may have emerged if a sample of parents or teachers had been used to examine treatment acceptability. Thus, future examination of child gender and age effects on treatment acceptability in a sample of parents is warranted.

Another possible explanation for the failure to find significant gender effects is that child gender may not be relevant or salient when considering parent-focused versus child-focused treatments. While treatment that focuses on a parent versus a child may be a salient dimension when considering child age, other characteristics of treatment may be more relevant when considering the impact of child gender on treatment acceptability. For example, child gender may be a more relevant factor if expressive versus instrumental styles of therapy were evaluated, or if cognitive and interpersonal types of therapy were compared. The influence of gender and gender socialization on the process of therapy has been examined in the adult psychotherapy literature (Maracek & Johnson, 1980). Clinical research has reported that men express less affect and are more cognitively and problem-solving oriented in therapy than women due to gender stereotyping and the socialization of males to be strong, self-contained, and in control of their emotions (Werrbach & Gilbert, 1987). As shown in social psychological research,

women, on the other hand, tend to endorse greater emotional expressiveness and intensity compared to men (Deiner, Sandvik, & Larson, 1985; Smith & Kluegel, 1982). Drawing from the differences in males' and females' responses in therapy, it is hypothesized that gender differences might emerge if treatment acceptability was compared and evaluated for a child-based behavioural intervention focusing on exposure versus a child-based intervention emphasizing children's identification and management of their anxious feelings.

Another possible explanation for the lack of a gender effect can be drawn from research on shyness in boys and girls. For example, a study was conducted to examine characteristics of boys and girls who exhibited low, medium, and high levels of shyness (Stevenson-Hinde & Glover, 1996). Characteristics of shy children were measured in terms of negative mood, worries and fears, problem behaviours, and mother-child observed interactions. No gender differences were found among these characteristics. Furthermore, with the exception of boys' greater display of "acting out" problem behaviours compared with girls, no gender differences were found in teachers' reports of boys' and girls' "withdrawal" problems. Given this lack of gender differences in characteristics of shy boys and girls, and the similar clinical phenomenon of shyness and anxiety, it is suggested that there may be no differences in the manifestation of symptoms of anxiety in boys and girls. Given the possibility that anxiety in boys and girls may be presented in a similar way, it seems reasonable to infer that the acceptability of treatments for anxiety (i.e. parent-focused, child-focused, or medication) may not differ due to the child's gender. It is noted, however, that little research has examined anxiety in boys versus girls, and further research exploring potential gender differences in the

manifestation of anxiety problems, as well as adults' perceptions of anxiety problems in boys versus girls is warranted.

Biological and psychosocial beliefs about the causes of child anxiety were explored in the present study and were found to be associated with ratings of treatment acceptability. A strong endorsement of biological causes of anxiety problems (e.g. genetics) was associated with increased acceptability of both medication and psychosocial treatments, suggesting that greater perceptions of biological causes do not preclude the acceptance of "non-biological" treatments.

On the other hand, acknowledgement of psychosocial and environmental factors such as overprotective parenting and stressful life events were only related to the acceptability of psychosocial treatments. The more individuals endorsed psychosocial/environmental factors in causing child anxiety, the greater the acceptability of parent-focused and child-focused treatments. The endorsement of psychosocial contributions to child anxiety, however, was not found to be related to medication acceptability. Thus, while individuals' beliefs in psychosocial causes of child anxiety were only associated with acceptability ratings of psychosocial treatments, the greater endorsement of biological causes were associated with greater acceptability for both biological and non-biological treatments for child anxiety. In contrast to these findings, however, Reimer et al. (1995) found that parents' stronger endorsement of genetic or medical causes (i.e. "physical" causal attributions) for their children's externalizing behaviour problems (e.g. aggression) was related to lower acceptability ratings of behavioural treatments. Also, parents' attributions of environmental causes for their children's behavioural difficulties were not found to be related to ratings of acceptability

for behavioural treatments. Hence, given some research on treatment acceptability and attributions for child externalizing problems, greater attention is warranted to better understand the association between causal beliefs of anxiety problems and treatment acceptability.

Limitations

The limitations of the present study warrant consideration. One limitation is the use of an undergraduate sample. It is recognized that the opinions of young, single adults regarding treatment acceptability may be different from the opinions of adults who are actually raising children. Although parental status has not been found to influence acceptability ratings of behavioural treatments (Frentz & Kelley, 1986; Pickering et al., 1988), the acceptability of interventions specifically targeted at parents (i.e. parent-focused treatment) versus children (i.e. child-focused treatment) may differ between parents of children with anxiety problems and non-parents. Furthermore, the applicability of the findings is limited in that they are not generalizable to actual consumers of treatments (i.e. parents of children with anxiety problems).

The use of an analogue methodology is another limitation, which has characterized many of the previous studies on treatment acceptability (e.g. Elliott & Fuqua, 2002; Tingstrom et al., 1989). Though effective in examining the impact of specific child characteristics (i.e. age), the written case vignettes lack ecological validity in representing real-life children exhibiting anxiety. Nonetheless, the use of an analogue methodology in the present study allowed for careful manipulation of child age and gender, while controlling for other confounding factors such as child symptom severity. It also provided an initial opportunity to examine an understudied area of research on

treatment acceptability of child anxiety interventions (i.e. parent-focused, child-focused) which until now, has not yet been investigated. Future research examining treatment acceptability among parents of anxious children is warranted.

Related to the issue of ecological validity, another limitation of the present study is that treatment acceptability was evaluated for each treatment component in isolation. In reality, interventions for children and adolescents with anxiety may be multimodal and comprehensive, utilizing both psychosocial and medication treatment components, or both parent- and child-focused components, instead of only one mode of intervention. Perceptions of treatment acceptability could, therefore, differ when components are combined. While the acceptability of medication treatment may be generally lower than psychosocial treatments, some research on children with ADHD has shown individuals' greater acceptability of medication in combination with behavioural treatment, compared to medication treatment alone (Power et al., 1995).

Implications

The present study has several important practical implications. First, at a broader level, by identifying child anxiety treatments that are viewed favorably by potential consumers, greater attention could be devoted to those particular types of treatment. Since parent-focused and child-focused psychosocial treatments were found to be more acceptable than medication, further research on these psychosocial treatments is warranted. The study also has economic implications for treatment utilization and cost-effectiveness. Specifically, parent-focused treatment was found to be more acceptable than child-focused treatment for younger children with anxiety problems. This suggests that fruitful efforts could be made to implement interventions that work primarily through

parents of young anxious children, with an expectation that parents of younger children will receive treatments more favorably and be more willing to use them compared to parents of older children. Similarly, the greater acceptability of individual child-focused treatment for older children lends credence to the utilization of child-focused interventions for anxious adolescents. By better understanding which specific treatment components (i.e. parent-focused or child-focused) are deemed acceptable and suitable for different-aged children, treatment providers could match treatment acceptability attitudes with the treatment being offered, which has potential economic implications for maximizing the utilization of treatment resources and minimizing health care costs. Nevertheless, it is important to note that despite the greater acceptability of parent-focused treatment over child-focused treatment for younger children, and child-focused treatment over parent-focused for older children, average ratings of both psychosocial treatments across younger and older children were positive.

Second, understanding individuals' perceptions of acceptability of different treatments for child anxiety may not only help determine whether treatments for anxiety get implemented, but it may be useful in predicting adherence to treatments and outcome success. Evidence has shown that parental perceptions of the relevance and importance of treatment influenced whether families of children with aggressive problems dropped out of treatment (Kazdin, Holland, & Crowley, 1997). As proposed by Witt and Elliott (1985), treatment acceptability can influence treatment selection and utilization, which can consequently impact treatment adherence and the perceived effectiveness of treatment. Applying the study's findings, it can be inferred that tailoring parent-focused interventions for the treatment of anxiety in younger children and implementing child-

focused treatments for older children could result in better compliance, thereby increasing the probability of effective treatment.

The present study underscores the importance of considering child age when providing treatments since child age appears to play a role in guiding adults' perceptions of the acceptability of treatments for child anxiety. This recognition of the influence of child age in treatment acknowledges the importance of developmental considerations that have been identified by others in the clinical-developmental field (Barrett, 2000; Holmbeck & Kendall, 1991; Piacentini & Bergman, 2001). Considering gender, however, the study did not find that child gender influenced ratings of treatment acceptability, which suggests that parent-focused and child-focused psychosocial treatments may be perceived to be equally acceptable for anxious boys and girls of all ages.

Lastly, the present investigation yielded information regarding beliefs about the causes of child anxiety that may be associated with the acceptability of different modes of intervention. For example, the findings suggest that engagement in parent-focused treatment may be improved by increasing individuals' awareness of the role of psychosocial factors, such as the types of parenting responses that can be elicited by children's anxious/withdrawn behaviour (i.e. overprotection), in contributing to or maintaining child anxiety. More attention is needed to discern the relationship between beliefs about the causes of child anxiety problems and treatment acceptability and preference, and the impact of the beliefs and attitudes on treatment compliance.

Conclusion

In conclusion, while there appears to be a relatively well-developed literature in the area of treatment acceptability for disruptive, externalizing child behaviours (e.g.

Kazdin, 1980; Kazdin et al., 1981; Norton et al., 1983), there remains a scarcity of research in the area of treatment acceptability for child internalizing problems. In spite of the handful of studies on treatment acceptability for child depression (Miller et al., 2002; Tarnowski et al., 1992), school refusal (Gullone & King, 1991), and one recent study on child anxiety (Chavira et al., 2003), the influence of child characteristics (i.e. child age and gender) have not been examined previously. Also, the study of treatment acceptability for internalizing problems has focused on specific aspects of cognitive-behavioural treatments (e.g. social skills training and cognitive therapy). Until now, parent-focused versus child-focused treatments for child anxiety have not been explored in the treatment acceptability literature. Thus, the present study is the first to investigate the influence of child age and gender on the acceptability of parent-focused, child-focused, and medication treatments for child anxiety.

In summary, it appears that child age influences ratings of acceptability, with greater acceptability of parent-focused treatment for younger children, and greater acceptability of child-focused treatment and medication for older children. As for child gender, the acceptability of parent-focused, child-focused and medication treatments do not seem to differ for anxious boys and girls, at least when considering ratings by university undergraduates. These findings suggest that perceptions of treatment acceptability are guided by child age. Overall, mean ratings of treatment acceptability for both parent- and child-focused treatments were indicative of positive perceptions of these interventions for both younger and older boys and girls, and stood in contrast to markedly lower perceptions of medication acceptability. Although this study reports a general pattern of acceptability of treatments for child anxiety based on average ratings, it is

important to remember that clients' or consumers' views of treatment acceptability vary from individual to individual. A better understanding of individuals' attitudes towards treatment has implications for clinicians to provide treatments that are congruent with individuals' perceptions of treatment acceptability. As well, by identifying individuals who may perceive certain treatments to be less acceptable, clinicians may be able to target individuals with information about the treatments' rationale and efficacy, which may enhance their perceptions of treatment acceptability, and ultimately lead to better utilization of treatment.

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Appendix A

Case description of 6-year-old boy

Johnny is an anxious, 6-year old boy in the first grade. He is described by both his parents and elementary classroom teacher as a very shy and quiet child who rarely talks or plays with other children. He rarely, if ever speaks out in class and becomes visibly anxious when called upon in class. When called upon, he appears extremely uncomfortable and sometimes does not respond to the teacher's question or will respond very timidly, avoiding eye contact. His teacher notes that he tends to avoid interactions with other children during recess, has few friends, and is very apprehensive about joining group activities (e.g. soccer). Johnny's parents say that he is scared of trying new things and constantly worries about bad things that could happen to him. His parents report that he has had problems with anxiety both in and outside of home for more than a year. Both Johnny's parents and teacher are concerned about the negative impact that Johnny's anxiety is having on his social development and academic success.

Case description of 6-year-old girl

Jenny is an anxious, 6-year old girl in the first grade. She is described by both her parents and elementary classroom teacher as a very shy and quiet child who rarely talks or plays with other children. She rarely, if ever speaks out in class and becomes visibly anxious when called upon in class. When called upon, she appears extremely uncomfortable and sometimes does not respond to the teacher's question or will respond very timidly, avoiding eye contact. Her teacher notes that she tends to avoid interactions with other children during recess, has few friends, and is very apprehensive about joining group activities (e.g. playing games). Jenny's parents say that she is scared of trying new things and constantly worries about bad things that could happen to her. Her parents report that she has had problems with anxiety both in and outside of home for more than a year. Both Jenny's parents and teacher are concerned about the negative impact that Jenny's anxiety is having on her social development and academic success.

Case description of 13-year-old boy

Paul is an anxious, 13-year old boy in the eighth grade. He is described by both his parents and junior high school teachers as a very shy and quiet adolescent who rarely talks to his peers. He rarely, if ever speaks out in class and becomes visibly anxious when called upon in class. When called upon, he appears extremely uncomfortable and sometimes does not respond to the teachers' question or will respond very timidly, avoiding eye contact. His teachers note that he avoids interacting with his classmates, is anxious when he has to participate in class discussions, has few friends, and does not join any extracurricular activities (e.g. intramurals). Paul's parents say that he worries a great deal about what others think of him, will not go to parties, and is fearful of meeting new people. His parents report that he has had problems with anxiety both in and outside of

home for more than a year. Both Paul's parents and teachers are concerned about the negative impact that Paul's anxiety is having on his academic success and social development.

Case description of 13-year-old girl

Patricia is an anxious, 13-year old girl in the eighth grade. She is described by both her parents and junior high school teachers as a very shy and quiet adolescent who rarely talks to her peers. She rarely, if ever speaks out in class and becomes visibly anxious when called upon in class. When called upon, she appears extremely uncomfortable and sometimes does not respond to the teachers' question or will respond very timidly, avoiding eye contact. Her teachers note that she avoids interacting with her classmates, is anxious when she has to participate in class discussions, has few friends, and does not join any extracurricular activities (e.g. choir). Patricia's parents say that she worries a great deal about what others think of her, will not go to parties and school dances, and is fearful of meeting new people. Her parents report that she has had problems with anxiety both in and outside of home for more than a year. Both Patricia's parents and teachers are concerned about the negative impact that Patricia's anxiety is having on her academic success and social development.

Appendix B

Parent-focused treatment

This treatment is directed toward the parents of anxious children. The approach focuses on teaching parents ways of helping their child to manage anxiety. A major goal of treatment is to help the child reverse his or her tendency to avoid situations that make him or her feel anxious. A key component is teaching the parent to assist the child to approach anxiety-producing situations. The aim is for the child to learn that he or she can cope in the feared situation and gain a sense of control. Parents are taught to develop confidence in handling situations in which their children are anxious. Parents are also taught ways to help their child think more realistically about anxiety-arousing situations and change unrealistic thoughts that promote anxiety. Finally, parents may be taught how to help their children relax.

Appendix C

Child-focused treatment

This treatment is directed toward the anxious children themselves. The approach focuses on teaching the child strategies to manage anxiety. A major goal of treatment is to help the child reverse his or her tendency to avoid situations that make him or her feel anxious. A key component of treatment is exposure exercises which encourage the child to approach situations and learn that the anxiety gradually subsides. The aim is for the child to learn that he or she can cope in the feared situation and gain a sense of control. The child is also taught exercises aimed at helping him or her think more realistically about anxiety-arousing situations and change unrealistic thoughts that promote anxiety. Finally, the child may learn about ways to relax.

Appendix D

Medication treatment

This treatment uses medication to treat anxiety in children. The antianxiety medications which are used most commonly are called selective serotonin reuptake inhibitors (SSRIs) such as sertraline (Zoloft) and fluvoxamine (Luvox). The medication is started at a low dose, taken daily, and gradually increased until the desired reduction in anxiety is achieved. Medication treatment is focused on reducing the anxiety that the child experiences in everyday life. With the anxiety level being reduced, children are more able to approach difficult situations that they may have been avoiding. Children thereby learn that they can cope with these feared situations and gain a sense of control. Another goal of medication is to help the child feel more relaxed.

Appendix F

Sample Treatment Ranking and Refusal Form

Instructions: Imagine that you have a 6-year-old son experiencing the same anxiety problems as Johnny. Please rank the three treatments in order of preference from 1 (*most preferred*) to 2 to 3 (*least preferred*).

____ Treatment directed toward the parent

____ Medication treatment

____ Treatment directed toward the child

Are there any treatments you would decline? Yes No

➤ If Yes, mark the treatment you would decline:

Treatment directed toward the parent

Medication treatment

Treatment directed toward the child

Appendix G

Child Anxiety Belief Scale

Instructions: There are a number of factors that have been found to cause child anxiety. This questionnaire asks for your beliefs about some possible causes of children's anxiety and how important each factor is in causing children's anxiety. Please read each statement and circle the extent to which you disagree or agree.

1. Excessive control of the child's behaviour by parents is an important factor in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

2. An overactive nervous system is an important factor in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

3. Child anxiety disorders are caused by living in environments that reduce children's sense of control.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

4. Overprotection by parents who are coping with an anxious child is an important factor in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

5. Genetic factors are important in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

6. Child anxiety disorders are caused by early learning experiences which make children anxious.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

7. A timid and fearful temperament is an important factor in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

8. Lack of a warm and caring relationship with parents is an important factor in causing child anxiety.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

9. Child anxiety disorders result from traumatic experiences or stressful life events.

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree

10. Insecure early relationships with parents are important factors in causing child anxiety

1-----2-----3-----4-----5-----6-----7
Disagree Neutral Agree