Parental Perceptions of Mental Health Treatment Options for Childhood Anxiety Disorder

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Abstract

Anxiety is a major issue in the United States. There are several effective treatment options (CBT, family therapy, and psychopharmacology) for children suffering from anxiety. Treatment effectiveness is enhanced by positive parent preference. Previous research suggests parents tend to prefer CBT over medication. In addition, demographic factors may influence a parent's outlook regarding mental health treatment. The current study assessed the influence of ethnicity, political affiliation and religion in relation to seeking treatment for a child suffering from an anxiety disorder. Participants were 318 parents, recruited through an online site, Amazon's mTurk, who had a child between 8 and 10 years of age. Participants answered a series of demographic questions along with belief scales assessing their beliefs regarding mental illness, mental health treatment, treatment seeking, and stigma. Respondents were then randomly assigned to one of two vignettes, that only differed in the gender of the child, describing a hypothetical child with an anxiety disorder. The vignette was followed by a series of questions that assessed their willingness to seek treatment for the hypothetical child, treatment preference and ability to access treatment. Results suggested that while parents indicated a preference for CBT, the only demographic factor that prevented parents from seeking treatment was political conservatism. Furthermore, negative beliefs towards mental health treatment, treatment seeking, and fear of stigma influenced a parent's decision to seek treatment more than demographic factors.

Parental Perceptions of Mental Health Treatment Options for Childhood Anxiety Disorder

Mental illness is a growing concern in the United States. The recent increase in mental health cases has disproportionately affected children, with 1 out of every 7 U.S. child 2 to 8 years of age having a diagnosable mental, behavioral, or developmental disorder (Bitsko et al., 2016). According to the U.S. Office of Technology Assessment, as many as 70% of these children who have a diagnosable mental disorder do not receive any mental health treatment.

It is vital for children with a diagnosable mental disorder to receive treatment, as mental disorders often persist into adulthood. In addition, mental disorders are associated with poorer school performance and employment opportunities, other adverse health conditions, early mortality, and considerable costs for persons with the disorders, their families and society (National Research Council and Institute of Medicine, 2009). The World Health Organization (WHO) reports that anxiety disorders are the most common mental disorders worldwide. As a direct result of the frequency of anxiety disorders, and the lack of administered treatment to children, anxiety disorders are a point of concern in the United States. Fortunately, parental involvement can significantly improve treatment outcomes in children suffering from an anxiety disorder (Kazdin, 1980).

The Anxiety and Depression Association of America recognizes that anxiety is a normal part of childhood, with every child going through phases that are temporary and usually without detrimental effects. However, children who suffer from an anxiety disorder tend to experience fear, nervousness, and shyness, and tend to avoid specific places and activities (ADAA). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, the diagnostic criteria for generalized anxiety disorder includes: (a) “excessive anxiety and worry, occurring more days than not for at least 6 months,” (b) “the individual finds it difficult to

control the worry," (c) "the presence of one symptom having been present for more days than not for the past 6 months, with symptoms including restlessness, being easily fatigued, difficulty concentrating on one task, irritability, muscle tension, and/or sleep disturbance," (d) "clinically significant distress or impairment in social, occupational, or other important areas of functioning," (e) "disturbance is not attributable to the effects of a substance or another medical condition," and (f) "the disturbance is not better explained by another mental disorder" (2013, p. 222).

Currently, the causes of anxiety are thought to be a combination of biological and environmental influences (Vasey & Dadds, 2001). Thus, susceptibility to anxiety can be inherited biologically (Silverman, Cerny, Nelles, & Burke, 1988), or triggered by a particular environment, or both. Therefore, it is imperative to choose a treatment option that takes both biological and environmental influences into account. There are several psychological treatments used for treating anxiety disorders in children and adolescents; the most popular treatment options include cognitive behavioral therapy, family therapy, and psychopharmacology.

Treatment Options

Cognitive Behavioral Therapy (CBT) is a form of behavioral therapy that has received strong empirical support for treating anxiety disorders in children. Originally developed to treat adults suffering from anxiety, CBT is now considered the treatment of choice for anxious children and adolescents (Rapee, Schniering, & Hudson, 2009). After spending much of the 1970s and 1980s examining the efficacy of CBT in treating adults, researchers turned their attention to examining the efficacy of using CBT to treat children with the first large randomized controlled trial in the early 1990s (Kendall, 1994). Similar to the techniques used in treating adults, CBT for children involves cognitive skill training (e.g., identify anxious thoughts and

strategies to challenge their accuracy) and exposure tasks (e.g., behavioral experiments to test cognitions) in addition to psychoeducation (Hudson et al., 2015; Kendall et al., 2010). The format of CBT varies (e.g., individual, group, with or without family involvement), and typically involves a total of 9 to 20 sessions; the average number of sessions is 16. CBT requires a higher-level cognitive functioning, typically making it less effective in very young children (Lyneham, Abbott, Wignall, & Rapee, 2003).

For both children and adults alike, CBT is typically introduced with psychoeducation relating to the causes of anxiety, the CBT model, and the rationale for treatment. Often the therapist must adapt the discussion to match the child's developmental level (Oar, McLellan & Rapee, 2017). Furthermore, therapists take into consideration the developmental level of the child to determine the types of cognitive techniques to use. For younger children who have difficulty identifying their thoughts and feelings, a therapist may use visual aids or have the child guess what someone else might think in the same situation, to help the child become aware of their thinking. However, in cases in which the child is successfully able to identify their thoughts, the therapist may apply cognitive restructuring to help children realistically estimate the chance of their feared outcome occurring and the severity of the consequences of their feared outcome (Lyneham et al., 2003). As the rate of cognitive development may vary considerably from one child to the next, it is the therapist's job to tailor CBT to the cognitive capacity of every child, while also taking into account the nature of the child's fear.

Despite the success of these interventions helping to alleviate the symptoms of anxiety in children, there remain many children who continue to experience impairing symptoms post-intervention (Wood & McLeod, 2008). As a result, the idea to integrate family participation into interventions for children has been considered (Silverman & Berman, 2001). To date, findings

are favorable in that family-based cognitive-behavioral interventions for childhood anxiety disorders were found to be highly effective and to outperform child-focused cognitive-behavioral interventions alone (Wood & McLeod, 2008).

A recent meta-analysis using individual patient data found that CBT with parental involvement, in which parents were taught either contingency management (e.g., rewarding brave behaviors) or transfer of control (e.g., gradual transfer of control from therapist to parent), outperformed CBT without extensive parental involvement (Manassis et al., 2014). In addition, CBT with parental involvement allows for parents to provide the therapist with information related to situations that trigger their child's anxiety and related response and also to facilitate home-based exposure techniques (Peterman, Read, Wei & Kendall, 2015; Swan, Kagan, Frank, Crawford, & Kendall, 2016). Ultimately, long-term change is dependent on the therapist "transferring control" to the parent so that CBT strategies can be effectively used at home and throughout the child's and adolescent's life (Manassis et al., 2014; Silverman & Kurtines, 1996).

In addition, psychopharmacology is often recommended for children whose anxiety symptoms are too impairing to engage in effective interventions (RUPP Anxiety Group, 2001). Specifically, selective serotonin reuptake inhibitors (SSRIs) are most often prescribed for children with anxiety disorders. According to the American Academy of Family Physicians, they help make serotonin, a neurotransmitter that helps maintain mood, become more available to the brain. Furthermore, current research continues to validate the usefulness of SSRIs in the short- and long-term treatment of childhood anxiety disorders (Clark et al., 2015). Although we understand the effectiveness of SSRIs, it is also important to consider the factors that are important to parents when considering whether or not to medicate their child.

Perceptions of Effective Treatment Options

Recent trends in health care highlight the need to understand patients' and parents' perceptions of treatment options (Levant, 2005). When treating children, parents are encouraged to play an active role in supporting their child's mental healthcare (Brown, Deacon, Abramowitz, Dammann, & Whiteside, 2007). In fact, treatment effectiveness may be enhanced by positive parent preference (Morrissey-Kane & Prinz, 1999). Furthermore, treatments viewed as more acceptable may be more readily sought by parents and adhered to than a treatment that parents view as less acceptable (Kazdin, 1980).

While anxiety disorders are the most common mental health disorder in youth, there has been limited research examining parents' perception of established treatment acceptability. Although we know parental perceptions of treatment are important, we do not have extensive knowledge of which treatment parental figures prefer for their child. Brown et al. (2007) examined parents' perceived acceptability, believability and effectiveness of CBT and pharmacotherapy treatments for child anxiety. The study consisted of 71 parents who had a child (aged 5–18 years) with a clinically diagnosed anxiety disorder. Although both CBT and pharmacotherapy were perceived favorably by parents, CBT was rated as significantly more acceptable, believable and effective in both the short- and long-term compared to SSRI medication treatment. Interestingly, parental perceptions of pharmacotherapy became more favorable when their child had a history of medication use. Parents of children with no medication history reported substantially less favorable perceptions of the acceptability and believability of pharmacotherapy compared to parents of children who have a medication history. However, a child's treatment history was unrelated to perceptions of CBT. Ultimately, more children had a history of medication use than a history of CBT or another form of

psychotherapy, yet parents were more likely to rate CBT as their first treatment preference. Interestingly, parent's perceptions of medication become more favorable as their child enters adolescence (Brown et al., 2007).

Although findings indicated a preference for CBT over SSRI medication when treating anxiety disorders in youth, there are some studies that suggest otherwise. Roberts, Farrell, Waters, Oar, and Ollendick (2015) suggested parents may view SSRI medication more favorably if they do not have a child who suffers from anxiety. Perhaps this highlights that a different perception emerges when a parent has a child with an anxiety disorder and they are forced to contemplate using SSRI medication to manage their child's condition (Roberts et al., 2015).

It is possible that the type of treatment adults seek for themselves may be related to what they perceive as effective for their child. Schofield, Dea Moore, Hall and Coles (2016), examined perceptions of anxiety disorders and the likelihood of seeking treatment in an adult population. The study revealed perceptions of helpfulness for professional treatments (both therapy and medication) were generally high as well as consistent with previous work suggesting therapy was more positively rated then medication (McHugh, Whitton, Peckham, Welge, & Otto, 2013). Regardless, positive perceptions of treatment did not directly relate to use of treatment. Notably, many people are unaware of where to seek helpful resources, although they recognize the effectiveness of mental health treatment. Unfortunately, lacking proper knowledge makes it difficult for people to seek a mental health specialist.

The Impact of Race, Politics and Religion on Mental Health Treatment

There are several other factors that may influence a parent's ability or decision to access mental health treatment for their child beyond their knowledge of how to locate a provider. The

Surgeon General produced a report that highlighted stigma as the leading cause that prevents people from seeking mental health services (Office of the Surgeon General, 2001). The fear of stigma especially hinders racial and ethnic minority groups from seeking mental health services. For instance, African Americans hold stronger negative attitudes than Caucasians about mental illness, which negatively influence their attitudes toward treatment seeking (Sanders, Bazile, & Akbar, 2004). Researchers have suggested that stigmatizing attitudes may deter racial minority individuals from seeking care because, as Corrigan concluded, "social-cognitive processes motivate people to avoid the label of mental illness that results when people are associated with mental health care" (2004, p. 857).

There are several other factors that may influence a parent's decision to seek mental health treatment beyond ethnicity. Anglin, Link and Phelan (2006) examined attitudes important in shaping public responses toward people suffering from mental illness and found that young, conservative and religious respondents were more likely than people who were older, more liberal and less religious to negatively view mental illness.

Zeldow and Greenberg (1980) extended our understanding regarding the relationship between politics and seeking mental health treatment. Interestingly, conservatives, compared to liberals, have more positive attitudes toward physicians. However, this does not translate to mental health professionals. Liberals have a greater tendency to not only have seen a psychiatrist or therapist but also to remain for more than five sessions. Perhaps, political affiliation may predict the likelihood of a parent seeking treatment for their child; specifically, parents who lean liberal may be more likely to seek treatment for their child.

In terms of religion, Chen, Cheal, Herr, Zubritsky, and Levkoff (2007) suggested that people who practice religion tend to experience fewer mental disorders. It is possible that people

who are religious and regularly attend religious ceremonies and activities have fewer issues with mental illness because of the comfort of inner spirituality or the social engagement and support from others who attend the same religious ceremonies. Furthermore, Chen et al. suggested that those in need of mental health treatment tend to seek religious or spiritual advice to resolve mental health problems rather than clinical treatment.

The Current Research

Many parents recognize the importance of mental health treatment particularly the helpfulness of CBT for treating children with an anxiety disorder (Brown et al., 2007). Nonetheless, many children in need are going without any form of treatment (U.S. Office of Technology Assessment). This study intends to provide a better understanding as to which children are likely not to receive treatment and what factors may predict that.

Taken together, previous research suggests that there are factors that may influence a parent's decision or ability to seek treatment. I will further the research by examining the specific demographic factors that influence a parent's decision to seek treatment. I hypothesize that participants who indicate that they would not seek treatment for a child will be from a minority background, be politically conservative, and regularly attend religious ceremonies.

Also, I recognize the importance of parent's viewing mental health treatment as acceptable. Previous research suggests parents tend to rate CBT as significantly more acceptable, believable and effective compared to SSRI medication treatment. Therefore, I hypothesize that parents who indicate they would seek treatment for a child suffering from an anxiety disorder will prefer CBT.

Method

Participants

The sample comprised 318 adults (aged 18 and older) who live in the United States and had a child between 8 and 10 years of age. Participants were recruited using Amazon Mechanical Turk (mTurk), an online human intelligence sampling platform, and all participants were compensated seventy-five cents to voluntarily complete the survey. All participants gave informed, written consent to participate in this study which was approved by the university institutional review board. On completion, participants were debriefed and thanked for their participation.

Procedure

Upon clicking on the survey within mTurk, participants were redirected to Qualtrics, an online survey site, where participants gave informed consent. Participants were asked several demographic questions (see appendix A), followed by four scales assessing beliefs about mental illness, mental health treatment, treatment seeking, and stigma respectively (see appendix B). Each scale asked participants to respond to eight statements except for the stigma scale which had only seven statements. Respondents were then randomly assigned to one of two vignettes describing a hypothetical child with an anxiety disorder. Vignettes only differed in the gender of the subject all other factors remained the same between the male and female vignettes. After reading the vignettes, participants answered a series of questions pertaining to their willingness to seek treatment for the hypothetical child, preferred treatment option, and ability to access treatment for the child (see Appendix C). Because we wanted to know about parental preference for, and ability to seek, treatment, we asked participants to answer the questions as if the hypothetical child was their 8 to 10-year-old. Lastly, all participants responded to a question that

asked for them to share whether their own child ever required mental health treatment. On completion, participants were debriefed and thanked for their participation.

Measures

Parents responded to statements that were designed to assess their perceptions of mental illness and treatment options along with their ability and willingness to seek treatment for their child. The four scales (beliefs about mental illness, beliefs about mental health treatment, beliefs about treatment seeking, and fear of stigma from loved ones), were adapted from the Endorsed and Anticipated Stigma Inventory to assess anxiety rather than general mental illness (Vogt, Di Leone, Wang, Sayer, Pineles & Litz, 2014).

Beliefs About Mental Illness. Participants responded to eight statements assessing their beliefs about childhood mental illness. These statements were answered on a scale from 1 (strongly disagree) to 5 (strongly agree). A single score for mental illness beliefs was calculated for each participant by calculating the mean of their responses to the eight statements.

Beliefs About Mental Health Treatment. Participants responded to eight statements assessing their beliefs about mental health treatment preferences. These statements were answered on a scale from 1 (strongly disagree) to 5 (strongly agree). A single score for mental illness beliefs was calculated for each participant by calculating the mean of their responses to the eight statements.

Beliefs About Treatment Seeking. Participants responded to eight statements assessing their beliefs to seek mental health treatment for a child. These statements were answered on a scale from 1 (strongly disagree) to 5 (strongly agree). A single score for mental illness beliefs

was calculated for each participant by calculating the mean of their responses to the eight statements.

Fear of Stigma from Loved Ones. Participants responded to seven statements assessing what they believe their family and friends would think of them if their child had a mental illness. These questions were answered on a scale from 1 (strongly disagree) to 5 (strongly agree). A single score for mental illness beliefs was calculated for each participant by calculating the mean of their responses to the eight statements.

Assessing Child with Anxiety Disorder. Participants read a vignette and responded to several questions about a child with an anxiety disorder. Below is the vignette; bracketed text indicates characteristics that vary between vignettes.

> [Drew/Nicole] is a nine-year old [boy/girl]. [He/She] has two siblings and lives in a loving home with [his/her] mother, father, and an older brother and a younger sister. Recently, [Drew's/Nicole's] babysitter who is a retired school teacher has brought to [his/her] parents' attention that [Drew/Nicole] seems to excessively worry about school, and specifically about moving up to the fourth grade. Drew has mentioned to his babysitter that [he/she] fears adjusting to the multi-grade school because [he/she] is shy and nervous around older children. Currently, [he/she] is reluctant to leave home to go to school and must often be coaxed to leave the house. In addition, the babysitter has noticed that [Drew/Nicole] is often irritable and cranky when interacting with [his/her] siblings. [Drew's/Nicole's] babysitter fears that how [Drew/Nicole] is feeling is outside the realm of how other children [his/her] age feel and speculates that [his/her] anxiety is making it hard to carry out day-to-day activities. After talking with the babysitter about her concerns about [Drew's/Nicole's] anxiety, irritability, and crankiness, [his/her]

parents realized that [Drew/Nicole] has also been more fatigued than usual, wakes up frequently during the night and can't get himself back to sleep, and can't focus on things [he/she] used to, like reading comic books, conversations at the dinner table, and [his/her] homework. [Drew's/Nicole's] two siblings have never experienced these problems.

Results

Sample Characteristics

Of the 318 adults in the study, the vast majority of participants (78.4%) indicated they were 25 to 44 years of age, and 63.8% of the participants were female. The sample was predominantly made up of Caucasians (79.6%), but also consisted of African-Americans (8.8%), Asians (4.1%), American Indian or Alaskan Native (1.6%), and persons of other/mixed race/ethnicity (4.8%). More than three-fourths (77.7%) of the sample was married, and 98.2% had a high school education or more. Specifically, 12.6% had a high school education, 20.6% had attended college but did not receive a degree, 14.8% had an associate degree, 38.4% had a bachelor degree, and 12.3% had a graduate degree. In terms of religion, Christianity was most commonly practiced among participants (51.9%), followed by non-religious (13.5%), and then a tie between Catholic (9.7%) and Agnostic (9.7%).

The main objective of the present study was to determine which children suffering from an anxiety disorder go without receiving mental health treatment. In order to assess which children do not receive treatment, the present study had two dependent variables: parent's own child and a hypothetical child. Originally, I intended to use these variables to compare parents intended actions for the hypothetical child to their own child. However, I was unable to do a direct comparison between these two variables. To assess a parent's decision to seek treatment

for the hypothetical child, I asked, “If Drew/Nicole were your child, would you seek mental health treatment,” while for the parent’s own child, I asked, “Have any of your own children ever been in mental health treatment.” It is possible that a parent who has never sought treatment for their own child is not against seeking treatment but rather has not had a reason to seek treatment. Therefore, the wording used to assess a parent’s decision to seek treatment differed between their own child and the hypothetical child and I was unable to compare the variables directly. Thus, data were analyzed separately for each of the dependent variables.

Own Child

I hypothesized that demographic factors such as a parental figure’s accessibility to treatment, level of education, political party affiliation, income and level of religiosity would influence his or her decision to seek treatment for their own child. Specifically, I predicted that children who do not receive treatment would be those with parents or guardians who are from a minority background, hold politically conservative beliefs, and have strong religious involvement, particularly those who regularly attend church or other religious meetings.

Out of the 318 participants in the study, 30 (9.43%) participants failed to indicate whether or not they have ever sought treatment for their own child; only 91 (28.62%) parents indicated that they have sought treatment for their own child and 197 (61.95%) indicated that they had not ever sought treatment for their own child. To address the hypothesis relating to demographics, the variables used to assess parental beliefs for seeking treatment for a parent’s own child were gender of parent, religiosity, income, education, and access to treatment. Income and education were converted into dichotomous variables using median splits. For income, people were considered lower income if the total household income was below $60,000; while for education, people were considered less educated if they did not have a four-year college education. A

composite variable for religiosity was created by taking the means of the responses to the two related questions (see Appendix A, Q13 and Q14). Table 1 shows the correlations between each of the five demographic variables and treatment seeking for one's own child. Overall, there were no significant correlations between any of the demographic variables and seeking treatment for one's own child.

In addition, a Chi-Square Test of Independence was performed to determine if a parent's ethnicity influenced their likelihood to sought treatment for their own child. The results show that all ethnicities were equally likely to have sought treatment for their own child, Chi-Square (N = 287, df = 5) = 4.51, p = .48. A separate Chi-Square Test of Independence was performed to determine if a parent's political affiliation influenced their likelihood to have sought treatment for their own child. Political party affiliation did not influence a parent's decision to have sought treatment for their own child, Chi-Square (N = 288, df = 2) = 3.36, p = .19.

Hypothetical Child

I was initially interested in seeing if willingness to seek treatment for a child with an anxiety disorder varied based on the gender of the child. Thus, this was the motivation for providing the vignette and differing the gender of the subject: Drew or Nicole. However, after performing an Independent Samples T-Test, I saw there were no differences in parent's decision to seek treatment based on the gender of the hypothetical child; t(268) = .06, p = .95. Thus, the dependent variable assessing whether or not a parent would seek treatment for hypothetical child was created by pooling the responses for both Drew and Nicole.

Based on the hypothetical child variable, I first hypothesized that parents who would seek treatment for the hypothetical child would prefer therapy over medication. Second, I

hypothesized that demographic background such as a parental figure's accessibility to treatment, level of education, political party affiliation, income and level of religiosity would influence his or her decision to seek treatment for the hypothetical child. Specifically, the hypothetical children who do not receive treatment would be those in which the parent or guardian is from a minority background, holds politically conservative beliefs, and has strong religious involvement, particularly someone who regularly attends church or other religious meetings.

To address the first hypothesis, a Chi-Square Test of Independence was performed between the treatment type and the hypothetical child. Parents were able to choose between therapy, medication, therapy and medication, or no preference as the preferred treatment type for the hypothetical child. Parents had a preferred treatment type for the hypothetical child, Chi-Square ($N = 300$, $df = 3$) = 22.87, $p < .0005$. For each treatment type, the percentage indicating that they would seek therapy is highest (62.00%) , followed by both therapy and medication (23.00%), then no preference (11.00%), with medication as the least preferred treatment option (4.00%).

To address the second hypothesis regarding the influence of demographic factors, correlations were performed between the five demographic variables (assess to treatment, parent's education, family income, parent's gender, and religiosity) and seeking treatment for the hypothetical child. [See table 1]. There were no significant correlations between education, income, or religiosity and seeking treatment for the hypothetical child; however, gender of the parent and access to treatment resulted in significant correlations with seeking treatment for the hypothetical child. Furthermore, female parents and those with access to treatment are more likely to recommend treatment for the hypothetical child.

To determine if a parent's ethnicity influences their likelihood to seek treatment for the hypothetical child, a Chi-Square Test of Independence was performed. The ethnicities analyzed were White, Black or African American, American Indian or Alaskan Native, Asian, or From multiple races and Some other race. The results show that all ethnicities are equally likely to seek treatment for the hypothetical child, Chi-Square (N = 300, df = 5) = 4.44, p = .49. The ethnicity of parents or guardians does not influence their decision to seek for the hypothetical child in the vignette.

To determine if a parent's political affiliation influences their likelihood to seek treatment for the hypothetical child, a Chi-Square Test of Independence was performed. Parent's identified their political party affiliation as either conservative, liberal, or neither liberal nor conservative. Political party affiliation does influence the parent's decision to seek treatment for the hypothetical child, Chi-Square (N = 301, df = 2) = 8.07, p = .02. For each political party affiliation, the percentage indicating that they would seek treatment for the hypothetical child is highest for parents who are neither liberal nor conservative (85.71%) , followed by liberals (83.61%), while conservatives were the least likely to seek treatment (74.73%).

A Chi-Square Test of Independence was performed to determine whether different religions impact a parent's decision to seek treatment for the hypothetical child. The only religions analyzed were Christian, Catholic, Atheist, and Non-religious because there were not enough people who indicated other religions such as Muslim, Buddhist, and Jewish to analyze. When parents must contemplate seeking treatment for the hypothetical child in the vignette, not all religions are equally likely to seek treatment, Chi-Square (N = 256) = 8.39, p = .04. For each of the religions the percentage indicating that they would seek treatment for the hypothetical

child is highest for Catholics (90.00%) and non-religious (90.00%), Christians (72.95%) and least likely for Atheists (74.07%).

To assess the relationship between what parents believe about treatment for mental illness and whether or not they seek treatment for the hypothetical child, I performed a series of correlations. In the survey, I asked parents to complete four scales assessing their beliefs about mental illness, mental health treatment, treatment seeking, and concerns surrounding the stigma associated with having a child with an anxiety disorder. Composites were formed for each scale by taking the average of the responses to each statement within the scale. Alpha reliability coefficients were calculated for each and all were found to be sufficiently reliable with α over .70 (For mental illness $\alpha = 0.89$, for mental health treatment $\alpha = 0.91$, for treatment seeking $\alpha = 0.91$ and for stigma $\alpha = 0.95$). The composite scores were used to perform correlations with the dependent variable: whether the parent would seek treatment for the hypothetical child Drew or Nicole.

Correlations were run between the composite scores for the belief scales and the dependent variable for the hypothetical child. The scales for beliefs about mental health treatment, beliefs about treatment seeking, and concerns surrounding the stigma associated with having a child with an anxiety disorder were correlated with the parent's decision to seek treatment for the hypothetical child. [See Table 2 for correlations].

Further correlations were run between each significant scale (for beliefs about mental health treatment, beliefs about treatment seeking, and concerns surrounding the stigma associated with having a child with an anxiety disorder) and the dependent variable. However, for these correlations, the composite scores were teased apart to see the individual statements

that correlated with seeking treatment for the hypothetical child. [See tables 3-5 for all the significant statements].

Discussion

The current study examined parental perceptions toward treatment seeking for children with an anxiety disorder. This study examined two hypotheses. The first was that parents who would seek mental health treatment for a child suffering from an anxiety disorder would prefer CBT to medication. Parents did, in fact, indicate a preference for CBT. This is consistent with previous research that parents who seek mental health treatment prefer therapy over medication for children with an anxiety disorder (Brown et al., 2007).

Second, I hypothesized that demographic factors influence a parent's decision to seek treatment. Parents who were minorities or regularly attended religious activities were not less likely to seek treatment for a child. However, more politically conservative parents tended to view treatment less favorably then liberal or moderate parents. Thus, the results only partially supported the main hypothesis.

This study was consistent with previous research that parents tend to prefer CBT over medication when treating a child with an anxiety disorder. In addition, it extended previous research by not only clarifying which demographic factors prevent parents from seeking treatment but also by introducing the moderating effects of belief scales that seem to hinder parent's decisions to seek treatment for a child suffering from an anxiety disorder. The results suggest that negative beliefs towards mental health treatment and the related stigma of seeking mental health treatment influence a parent's decision to seek treatment more than demographic barriers.

General Discussion

It has become increasingly necessary to understand parents' perceptions of treatment options (Levant, 2005). When treating children, parents are not only encouraged to play an active role in supporting their child's mental healthcare, but also research has suggested that parental preference may influence treatment effectiveness (Brown, Deacon, Abramowitz, Dammann, & Whiteside, 2007, Morrissey-Kane & Prinz, 1999). For instance, treatments viewed as more acceptable tend to be more readily sought by parents and adhered to than a treatment option that parents consider less acceptable. Treatment acceptability is based on the belief that the selected treatment is consistent with expectations and appropriate for the concerns being targeted (Kazdin, 1980).

The present study examined parents' perception of treatment options for anxiety disorder in children. Although parents perceive both CBT and pharmacotherapy favorably, CBT is often rated by parents as significantly more acceptable, believable and effective compared to SSRI medication treatment. In the current study, parents had the choice to select therapy, medication, therapy and medication, or no preference as his or her preferred treatment type for the hypothetical child. It was expected that parents would prefer therapy as the first treatment option for a child who is suffering from an anxiety disorder. The results of the current study are consistent with previous findings which indicate parental preference for CBT rather than SSRI medication when treating anxiety disorders in children (Brown et al., 2007).

It is possible that parents may view SSRI medication more favorably if they do not have a child. In the present study, all participants had a child and 28.62% of the parents had a child who is currently seeking treatment or has previously sought treatment. Perhaps a different perception emerges when a parent has a child and they are forced to contemplate using a medication to

manage a possible condition. In the current study, although participants responded to questions about a hypothetical child, they were asked to respond as if the child in the vignette was their own child. Although the majority of parents in the study have never sought treatment for their own child or most likely have not been forced to contemplate seeking mental health treatment, they show a preference for therapy when choosing a treatment option. Perhaps adults with children prefer therapy because if a child is only treated with therapy then it makes it seem as though their case is not as severe. Thus, it is necessary for clinicians to provide well-rounded psychoeducation explaining the benefits of all treatment options including SSRI medication. For instance, SSRI medication helps to make serotonin, a neurotransmitter that helps to maintain mood, more available to the brain. However, if parents are against seeking medication to treat their child because they fear that it implies severe mental illness, then clinicians should also address the stigma surrounding medication and the perceived severity of mental illness that it implies.

Although treatment acceptability is important to parents, it is equally important for parents to have access to treatment. Many parents are unaware as to where they can seek useful resources although they recognize the effectiveness of mental health treatment (Schofield et al., 2016). Thus, positive perceptions of treatment do not directly relate to use of treatment. The current study suggests that parents who lack access to treatment are less likely to seek treatment for the hypothetical child. In the present study, access to treatment was defined as proximity to treatment which most parents (94.1%) indicated as having access to treatment. This is likely due to the frequency of participants from more urban and populous states. Almost a third of participants indicated that they reside in California, Florida, Texas or New York. However, it is important to note that access to treatment is a complicated factor. Although location comes to

mind when discussing access to treatment, being financially able to afford treatment can also be considered and should be analyzed in relation to a parent's ability to access treatment.

There are several other factors that may influence a parent's decision to seek mental health treatment for their child beyond their ability to access a provider. Previous research has found that a person's ethnicity influences their likelihood to seek mental health treatment. It was believed that fear of stigma uniquely hindered racial and ethnic minority groups from seeking mental health services in hope of avoiding any stigmatized label related to mental illness (Sanders et al., 2004). Thus, I expected racial and ethnic minority groups to be less likely to seek treatment for the hypothetical child. However, in the present study, all ethnicities were equally likely to seek treatment for the hypothetical child. Thus, it can't be assumed that minorities are less likely to seek treatment. It is possible that the results differed from previous research because the sample was largely made up of Caucasians (79.6%). In addition, participants who indicated they are a minority may believe they would seek treatment for the hypothetical child, when in actuality, they may not seek treatment if it was their own child and they were faced with the real fear of being stigmatized.

Interestingly, while all ethnicities are equally likely to seek treatment for the hypothetical child, a parent's political party association influences their likelihood to seek treatment. Politically conservative parents are less likely to seek treatment for a child (Zeldow and Greenberg, 1980). Specifically, parents who hold conservative beliefs tend to be less likely to seek treatment for the hypothetical child suffering from an anxiety disorder. Also, I expected that people who regularly attend religious ceremonies would be less likely to seek treatment, because religious gatherings would provide people with the support they need, but the results suggested otherwise (Chen et al., 2007). Although certain religions were more likely to seek treatment for

the hypothetical child (i.e. Catholic and non-religious), religiosity did not influence a parent's decision to seek treatment. Therefore, while the hypothesis held true for political party affiliation, the results did not support my beliefs regarding religiosity in relation to a parent's decision to seek treatment. It appears that the type of religion parents practice influences their decision to seek treatment more than their level of religiosity. Thus, the ideals that govern a particular religion may have a stronger influence on the decision to seek treatment beyond the level of a parent's religious involvement.

In addition to assessing the influence of demographic factors, parents completed four scales designed to assess their perceptions regarding mental illness and related treatment options. The present study suggests that ethnicity and religious involvement do not influence a parent's decision to seek treatment; rather beliefs about mental health treatment, beliefs about treatment seeking and fear of stigma from loved ones influence a parent's decision to seek treatment. All statements from the belief scales were negatively worded; therefore, the more a parent agreed with a statement, the less likely they were to seek treatment for the hypothetical child. Understandably a parent who has negative views regarding treatment options or their effectiveness are less likely to seek treatment. Oar et al., (2017) suggested that psychoeducation consists of describing the causes of anxiety, the intended treatment, and the rationale for the intended treatment. Rather clinicians may want to describe options more broadly. Perhaps clinicians should introduce a component into psychoeducation focused on describing all effective treatment options to allow parents to better understand the effectiveness of all mental health treatments for children struggling with an anxiety disorder. Parents who then select the treatment for their child and in turn have some knowledge of the chosen treatment hopefully will have

greater acceptability for treatment and eliminate negative perceptions associated with lack of education.

The issue with educating parents about treatment options is that many parents with negative beliefs or perceptions most likely will never make it to the clinician to hear the treatment options for children with an anxiety disorder. Therefore, training school educators may be effective to promote the effectiveness of mental health treatment. Many children initially show signs of mental illness in school. Thus, it may be advantageous for clinicians to train educators as to common signs of mental illness in children and potentially effective treatment options. Hopefully, a teacher who recognizes signs of a mental illness in a child, would be able to inform the parents and provide useful resources that the parent can follow up with. Alternatively, the teacher could inform the school nurse or school counselor/psychologist who would be responsible to follow up with the parents. It may also be useful for pediatricians to make it common practice to ask parents about their child's mental health and regularly assess the child's mental health. This will not only help to better educate parents and provide parents them with appropriate resources if necessary, but also it will help to remove stigma by regularly addressing mental illness in casual conversation.

In addition to lack of education surrounding mental health treatment, the fear of stigma attached to seeking mental health treatment contributes to a parent's decision to not seek treatment. The Surgeon General produced a report that highlighted stigma as the leading cause that keeps people from utilizing and receiving mental health services (Office of the Surgeon General, 2001). In the present study, fear of stigma from loved ones prevented parents from seeking treatment. Although some may argue our society has become more tolerant regarding mental illness, there remains a stigma and for many this prevents them from seeking help.

Perhaps beginning in elementary school, children should be exposed to and taught about mental illness in an age appropriate way. It is easier to teach a child to be tolerant of mental illness than to change an adult's perceptions regarding mental health. Arguably the next step would be to educate children and study the impact it has on eradicating stigma since people tend to stigmatize things they do not understand.

Limitations and Future Research

Although I have touched on a few potential points for future research, the major limitation of the current study provides an appropriate avenue to further research this topic. This study provided insight into what parents believe they would do for a child with an anxiety disorder, but it would have been interesting to compare the difference in beliefs between a parent's own child and a hypothetical child. Although this was the intention, the question asking parents whether they would seek treatment for the hypothetical child asked, "If Drew/Nicole were your child, would you seek mental health treatment," while the question asking parent's decide if they'd seek treatment for their own child asked, "Have any of your own children ever been in mental health treatment." Although a parent's own child may have never been in mental health treatment, it does not mean that the parent is against seeking treatment, it may simply mean that it has never been necessary. While the question about the hypothetical child forces the parent to confront their perceptions regarding treatment, the question about their own child only accounts for their previous actions. Thus, it would be interesting to compare parents intended actions for their own child to a hypothetical child. Although parents were instructed to answer all questions regarding the hypothetical child as if the child was their own, it is possible that parents answered differently than they would for their own child. By directly comparing parent's

responses for a hypothetical child to their own child, it would be possible to see if their intentions align with their actions.

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Tables

Table 1. Correlations Between Demographics and Hypothetical Child

Variable	1	2	3	4	5	6
1. Access to Treatment	-	0.03	-0.13*	-0.07	0.05	0.12
2. Education		-	0.24**	-0.25**	0.17**	-0.05
3. Family Income			-	-0.11**	0.12*	-0.03
4. Parent's Gender				-	-0.03	-0.14*
5. Religiosity					-	0.02
6. Seek Treatment for Hypothetical Child						-

Table 2. Correlations Between Scales and Seeking Treatment for the Hypothetical Child

Variable	1	2	3	4	5
1. Composite for Mental Illness	-	0.62**	0.67**	0.59**	0.65
2. Composite for Mental Health Treatment		-	0.69**	0.47**	0.12*
3. Composite for Treatment Seeking			-	0.63**	0.35**
4. Composite for Fear of Stigma				-	0.14*
5. Seek Treatment for Hypothetical Child					-

Table 3. Correlations Between Beliefs About Mental Health Treatment and Hypothetical Child

Variable	M	SD	1	2	3	4
1. Mental health treatment for an anxiety disorder generally does not work.	2.19	1.05	-	0.75**	0.51**	0.13*
2. Therapy/counseling does not really help for an anxiety disorder.	2.1	1.07		-	0.45**	0.13*
3. Medications for an anxiety disorder have too many negative side effects.	3.05	1.12			-	0.1
4. Seek Treatment for Hypothetical Child	-	-				-

Table 4. Correlations Between Beliefs About Treatment Seeking and Hypothetical Child

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. An anxiety problem would have to be really bad for me to be willing to seek mental health care for my child.	2.9	1.29	-	0.59**	0.62**	0.53**	0.50**	0.34**	0.41**	0.44**	0.33**
2. I would feel uncomfortable bringing my child to a mental health provider for treatment of an anxiety disorder.	2.43	1.24		-	0.66**	0.54**	0.57**	0.50**	0.49**	0.58**	0.35**
3. If my child had an anxiety disorder, I would prefer to deal with it myself rather than to seek treatment.	2.39	1.18			-	0.69**	0.59**	0.50**	0.51**	0.54**	0.36**
4. Most anxiety disorders can be dealt with without seeking professional help.	2.57	1.13				-	0.46**	0.46**	0.50**	0.49**	0.31**
5. Bringing my child to a mental health provider for help with an anxiety disorder would make me feel weak.	2.16	1.19					-	0.67**	0.67**	0.66**	0.23**
6. I would think less of my child if I brought them to see a mental health provider for help with an anxiety disorder.	1.73	1.02						-	0.70**	0.64**	0.14
7. If my child required mental health treatment for an anxiety disorder, I would feel stupid for not being able to fix the problem on my own.	2.02	1.12							-	0.58**	0.19**
8. I wouldn't want my child to share personal information with a mental health provider.	2.1	1.16								-	0.28**
9. Seek Treatment for Hypothetical Child	-	-									-

Table 5. Correlations Between Concerns Surrounding the Stigma Associated with Having a Child with an Anxiety Disorder and the Hypothetical Child

Variable	M	SD	1	2	3	4	5	6
1. If my child had anxiety disorder and friends and family knew about it, they would think less of me as a parent.	2.08	1.12	-	0.82**	0.64**	0.67**	0.65**	0.19**
2. If my child had anxiety disorder and friends and family knew about it, they would see me as weak.	1.98	1.11		-	0.67**	0.68**	0.68**	0.15**
3. If my child had anxiety disorder and friends and family knew about it, they would think my child was faking.	2.15	1.2			-	0.76**	0.75**	0.12*
4. If my child had anxiety disorder and friends and family knew about it, they would think that my child could not be trusted.	2.09	1.16				-	0.80**	0.12*
5. If my child had anxiety disorder and friends and family knew about it, they would avoid talking to my child.	2.07	1.18					-	0.15**
6. Seek Treatment for Hypothetical Child	-	-						-

Appendix A

Demographics

1. In what U.S. state or territory do you live? (Select state)
2. Before the age of 18, did you live in more than one state for longer than one year?
    a. Yes
    b. No
3. If so, please select the states that you lived in.
4. How would you best describe the area in which you currently live?
    a. Urban
    b. Suburban
    c. Rural
5. What is your gender?
    a. Male
    b. Female
    c. Non-binary/Third Gender
    d. Prefer to self-describe: _____
    e. Prefer not to say
6. Are you White, Black or African-American, American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific islander, or some other race?
    a. White
    b. Black or African-American
    c. American Indian or Alaskan Native
    d. Asian
    e. Native Hawaiian or other Pacific Islander
    f. From multiple races
    g. Some other race (please specify):
7. Are you now married, widowed, divorced, separated, or never married?
    a. Married
    b. Widowed
    c. Divorced
    d. Separated
    e. Never married
8. How many biological, adopted, or stepchildren children do you have?
    a. 1
    b. 2
    c. 3
    d. 4
    e. 5 or more
9. What is your age?
    a. 18 to 24 years

   b. 25 to 34 years
   c. 35 to 44 years
   d. 45 to 54 years
   e. 55 to 64 years
   f. Age 65 or older
10. What is the highest level of school you have completed or the highest degree you have received?
   a. Less than high school degree
   b. High school degree or equivalent (e.g., GED)
   c. Some college but no degree
   d. Associate degree
   e. Bachelor degree
   f. Graduate degree
11. How much total combined money did all members of your HOUSEHOLD earn in 2017? This includes money from jobs; net income from business, farm, or rent; pensions; dividends; interest; social security payments; and any other money income received by members of your HOUSEHOLD that are EIGHTEEN (18) years of age or older. Please report the total amount of money earned - do not subtract the amount you paid in taxes or any deductions listed on your tax return.
   a. $0 – 4,999
   b. $5,000 - $7,499
   c. $7,500 - $9,999
   d. $10,000 - $12,499
   e. $12,500 - $14,999
   f. $15,000 - $19,999
   g. $20,000 - $24,999
   h. $25,000 - $29,999
   i. $30,000 - $34,999
   j. $35,000 - $39,999
   k. $40,000 - $49,999
   l. $50,000 - $59,999
   m. $60,000 - $74,999
   n. $75,000 - $99,999
   o. $100,000 - $149,999
   p. $150,000 or More
12. Which religion do you associate with?
   a. Christian
   b. Muslim
   c. Catholic
   d. Buddhist
   e. Atheist
   f. Agnostic
   g. Non-religious

    h. Other (please specify): _____

13. How often do you attend church or other religious meetings?
    a. Never
    b. Once a year or less
    c. A few times a year
    d. A few times a month
    e. Once a week
    f. More than once/week
14. How often do you spend time in private religious activities, such as prayer, meditation or Bible study?
    a. Rarely or never
    b. A few times a month
    c. Once a week
    d. Two or more times/week
    e. Daily
    f. More than once a day
15. When it comes to politics, do you identify as a:
    a. liberal
    b. conservative
    c. neither liberal nor conservative
16. How strongly do you identify with that political affiliation?
    a. Slightly
    b. Moderately
    c. Strongly

Appendix B

Beliefs About Mental Illness

1. Children with an anxiety disorder cannot be counted on to act like other children their own age.

2. Children with an anxiety disorder often use it as an excuse.

3. Most children with an anxiety disorder are just faking their symptoms.

4. I don't feel comfortable around children with an anxiety disorder.

5. It would be difficult to have a normal relationship with a child with an anxiety disorder.

6. Most children with an anxiety disorder are difficult to be around.

7. Children with an anxiety disorder require too much attention.

8. Children with an anxiety disorder can't take care of themselves.

Beliefs About Mental Health Treatment

1. Medications for children with an anxiety disorder are ineffective.

2. Mental health treatment for an anxiety disorder just makes things worse.

3. Mental health providers don't really care about their patients.

4. Mental health treatment for an anxiety disorder generally does not work.

5. Therapy/counseling does not really help for an anxiety disorder.

6. Children who seek treatment for an anxiety disorder are often required to undergo treatments they don't want.

7. Medications for an anxiety disorder have too many negative side effects.

8. Mental health providers often make inaccurate assumptions about patients based on their group membership (e.g., race, sex, etc.).

Beliefs About Treatment Seeking

1. An anxiety problem would have to be really bad for me to be willing to seek mental health care for my child.

2. I would feel uncomfortable bringing my child to a mental health provider for treatment of an anxiety disorder.

3. If my child had an anxiety disorder, I would prefer to deal with it myself rather than to seek treatment.

4. Most anxiety disorders can be dealt with without seeking professional help.

5. Bringing my child to a mental health provider for help with an anxiety disorder would make me feel weak.

6. I would think less of my child if I brought them to see a mental health provider for help with an anxiety disorder.

7. If my child required mental health treatment for an anxiety disorder, I would feel stupid for not being able to fix the problem on my own.

8. I wouldn't want my child to share personal information with a mental health provider.

Concerns About Stigma from Loved Ones

If my child had anxiety disorder and friends and family knew about it, they would . . .

1. . . . think less of me as a parent.

2. . . . see me as weak.

3. . . . feel uncomfortable around my child.

4. . . . not want to be around my child.

5. . . . think my child was faking.

6. . . . think that my child could not be trusted.

7. . . . avoid talking to my child.

Appendix C

1. If Drew were your child, would you seek mental health treatment? Yes or No
2. If Drew were your child, would you know where to seek mental health treatment for him?
3. If Drew were your child, do you have a preference between seeking therapy or medication for him?
    a. Therapy
    b. Medication
    c. Therapy and medication
    d. No preference
4. Is the treatment option you selected a feasible option given your current location?
5. Is the treatment option you selected a feasible option given your income?
6. Have any of your own children ever been in mental health treatment?