Parent Emotional Talk and Participation in a Parent-Child Music Program for Children with ASD

Nia Goodman

Vanderbilt University
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

Abstract

The effects of parent-child interventions in families of children with autism spectrum disorders (ASD) have been widely studied for their impacts on the child’s learning and development, however the impacts on their parents are less often discussed. This is no different for the area of study that pertains to parent-child music classes. The current study seeks to explore the relationship between a music-centered parent-child intervention (SeRenade) and parent emotional talk about their preschool-aged child with or without ASD. Parent emotional talk was measured using the Autism Five Minute Speech Sample (AFMSS). Overall, participation in the music program had little impact on parent’s emotional talk about their child. Parenting stress and depression symptomatology were associated with amount of critical talk in the ASD group and parenting stress was associated with warmth of emotional talk in the typically developing group. The implications of these findings as well as opportunities for further research are also discussed.
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

Introduction

The way parents speak about and express emotions about their children, which hereafter will be referred to as parent emotional talk, has long been studied to understand its relationship with parent and child factors and to understand its impacts on the child. Parent emotional talk involves obtaining parental perceptions of their child through their own words about their child. This includes any information they would like to share about the child’s characteristics, behaviors, and the relationship between the parent and child. The goal of the present study is to examine if parent emotional talk about their child relates to parent/child characteristics and if it is impacted by their participation in a community experience of parent-child music classes for typically developing (TD) children and those with Autism spectrum disorder (ASD).

It is important to look at parent emotional talk as it relates to parents of children with ASD because it can provide useful information about the parent and their well-being as well as give insight into the parent-child relationship. This is important for all families and may be particularly informative for families of children with ASD. ASD is a common neurodevelopmental disorder associated with difficulties with social communication and interaction (APA, 2013). Parents of children with ASD have higher rates of stress and depression (Schieve, Blumberg, Rice, Visser, & Boyle, 2007). Mash and Johnston (1983) found an inverse relationship between parent self-esteem and perceptions of child problems as well as a positive correlation between child disturbance and maternal stress in typically developing children. The relationships among parental perception, child behavior, and parents’ stress has also been found to differ between mothers and fathers. Davis and Carter (2008) found that for fathers, the child’s observed social interaction skills were more predictive of parental stress, along with parent-child
relationship stresses and fathers’ evaluation of their child as “difficult”. Maternal stress on the other hand was associated with maternal negative perceptions of their child's behavior, measured by the parent-reported Infant-Toddler Social and Emotional Assessment rather than observed social and communication behaviors. Kasari and Sigman (1997), found that parents of children with autism who described their children’s temperamental style as “difficult” had children who were overall less engaged during games with their parents and less responsive during interactions with the experimenters. Parents of children with autism who reported higher levels of stress also had children who were less responsive in social interactions with other people (Sanders & Morgan, 1997). This study also found that of the groups sampled (children with autism, children with Down syndrome, children with other intellectual disabilities, and typically developing children), the link between parental perception of the child and the child’s interactive behaviors were most closely linked in the autism sample, which highlights the importance of studying parent emotional talk in parents of children with autism.

Although much of the literature focuses on the impact of negative parent perceptions of the child, positive parent perceptions can be very beneficial to parents and their children. Lazarus, Kanner, and Folkman (1980) hypothesize that in stressful situations in which negative emotions are prominent, positive emotions can provide an interruption that supports coping efforts and replenishes resources that are depleted by stress. They view positive perceptions as a factor that can lessen the impact of a child’s disability on family members. Positive emotions might help to bolster psychological and physical resources during stress, act as a buffer against the adverse physiological consequences of stress and help to protect against clinical depression in parents (Folkman & Mosokowitz, 2000).
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

Autism Specific Five Minute Speech Sample

One approach to measuring parent emotional talk is through measures created to capture Expressed Emotion (EE). EE is a measure of the family environment that is based on how the relatives of an individual spontaneously talk about that person and can be measured using the Five Minute Speech Sample (FMSS). This measure was originally established to study the effects of the familial environment on the relapse rate for adults with schizophrenia as a quantitative measure of emotions and attitudes conveyed by one family member towards another, but has since been expanded to study families of individuals with many disabilities, including autism (Benson et al., 2010).

The Autism Specific Five Minute Speech Sample (AFMSS) is a variant of the FMSS that was developed specifically for ASD. It includes six measures for measuring expressed emotion. There are four overarching scales which include the initial statement (IS), relationship (REL), warmth (WAR), and emotional over-involvement (EOI). The first two, the IS and the REL, are rated as either positive, neutral, or negative, while the WAR and EOI are rated as high, moderate, or low. The frequency of critical comments (CC) and positive comments (PC) are also recorded. The AFMSS is partially based on the Preschool Five Minute Speech Sample (PFMSS) and similarly assigns high expressed emotion if the speech sample has at least one negative global scale (IS, REL, WAR, or EOI) and a higher number of critical comments than positive comments (Daley et al., 2003).

Only a few studies have looked at EE or the components of EE in children with ASD. These studies report that mothers of children with ASD with higher expressed emotion are more content with their own parenting ability, even though their children had more behavioral issues
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade (Beck, 2004). The same study also shows that when comparing maternal expressed emotion towards their two children, one with autism and one without, the mothers were more negative towards their child with ASD for all areas of the Five Minute Speech Sample except statements of dissatisfaction, in which there was no significant difference between dissatisfaction scores for each child. Additionally, higher expressed emotion is related to increased levels of maladaptive behaviors and more severe symptoms of autism over time (Greenberg, Seltzer, Hong, Orsmond, 2006). Among the different components derived from the AFMSS, the warmth variable is most consistently positively related with child and parent characteristics such as verbal language use by child, child problem behavior, child social competence, as well as maternal support network size, maternal educational involvement, and family cohesion. Overall expressed emotion is significantly negatively related to verbal language use by child, child social competence, maternal network size, maternal educational involvement, and family cohesion, and is unrelated to child gender, age, problem behavior, maternal education, and maternal depressed mood (Benson et al., 2010).

Family-Centered Music Classes

Family-centered music classes may provide one avenue for impacting parent perceptions of their child and parent emotional talk. Family-centered music programs work with families in such a way that the parents’ knowledge and skills are promoted in order to enhance the experiences of their child and the parent-child relationship. When a parent or caregiver is actively involved in family-centered music therapy (Thompson, 2012) or family-centered community music programs (Lense et al., 2018), it creates the opportunity for positive family
experiences as well as positive child development outcomes (Thompson, 2012). Several studies have been done on the impacts of family-centered music classes on both parents and children with varying developmental disorders and typically developing children who participate in them. Statistically significant improvements have been reported in parental mental health, sensitivity, engagement with and acceptance of child, and child responsiveness to parent after their participation in a short-term group music therapy intervention using standardized questionnaires and teacher ratings (Williams, Berthelsen, Walker, & Abad, 2012). There were also high levels of parental satisfaction with the class based on an Overall Outcome Index which used variables such as parent mental health, parent report of child communication and social skills, clinician observed parent sensitivity to child, engagement of child and acceptance of child, and clinician observed child responsiveness to parent, interest in the intervention, and social engagement (Williams, Berthelsen, Walker, & Abad, 2012). Qualitative interviews/focus groups with parents of children participating in a family-centered music class for children with ASD suggested that parents perceived an increase in their child’s participation in the music class including playing instruments longer, vocalizing more, and being in physical contact with others (Allgood, 2015). Increased social behaviors has also been reported by parents, especially during musical activities (Lense et al 2018). Given the small sample size of these studies, the interview data may be very specific to each familial experience and may not be generalizable to all parents of children with autism. However, these prior studies suggest that family-centered music classes may be an activity that impact both parents and their children with ASD.
Connecting Parent Talk and Family-Centered Community Music Class Experience

The purpose of the current study is to examine the relationships between parent emotional talk, parent/child characteristics, and changes in parent emotional talk among families participating in a community parent-child music program (SeRenade). Though the focus is primarily on families of children with ASD, a small group of parents of children with typical development is included for a comparison. Based on the previous literature about positive emotional experiences of participating in family-centered music programs, it may be reasonable to hypothesize that parent talk as measured by the AFMSS would become more positive and less negative over the course of the SeRenade program because as classes progress and parents see their child participating in class, they may have more positive feelings towards their child. However, it is also important to note that the families that have chosen to participate in the SeRenade program may have more positive feelings towards their child than the general population of parents of children with autism, reflected by them having elected to participate in a community music program with their child for fun. Thus, high baseline levels of positive versus negative talk may preclude any detection of change. On the other hand, it is also possible that families may experience difficulties participating in the SeRenade program because of, for example, children’s behavior problems or disinterest in the program. Additionally, as an integrated community program, exposure to other children (including those who are typically developing), may make parents more aware of challenges that the child is facing. Therefore, it is also possible for parents to have decreased positive talk and more negative talk about their child after participating in an inclusion program.
Methods

Participants

Parent interview transcripts were analyzed from the parents of twenty-three children in the SeRenade program. The children ranged from age 2 to 4.75 with the average being 3.1 years of age (SD = 0.84). Fourteen of these children were diagnosed with Autism Spectrum Disorder and nine were typically developing (TD). Seventeen of the children were boys (9 ASD, 8 TD) and six were girls (5 ASD, 1 TD). Additional information on parent and child characteristics are provided in Table 1. Twenty-two of the interviewed caregivers were female and one was male. Seventeen of the participants indicated they were Caucasian, and there was one Asian family, two Latinx families, one Native American family, and two biracial families.

Setting

SeRenade (Social and Rhythmic Engagement in Autism Spectrum Disorder) is a parent-child music program led by psychologists and music therapists to study the feasibility and effectiveness of music interventions for children with ASD. The program uses parent training and peer modeling in an integrated parent-child music play class. These classes are led by a music therapist and use musical activities to teach parents techniques for promoting children’s social engagement and positive behavior both in class and at home. Visual supports, prompting techniques, and reinforcements are also used in the class to support children’s and parents’ participation (Lense et al. 2018; Skaggs, Lense, & Clayton 2017).

Measures

The primary measure being used for this study is the Autism-Specific Five Minute Speech Sample (AFMSS) (Benson, Daley, Karloff, & Robinson, 2011). Parents completed the
AFMSS before starting and at the completion of the SeRende music program. On the AFMSS, parents are asked to speak for up to five minutes about their child, their relationship, and how they get along. Once the parents begin speaking, the interviewer does not interrupt them. The AFMSS is typically scored using four global categories; initial statement, warmth, relationship, and emotional overinvolvement. However, emotional over-involvement will be omitted from the current study as we believe it is not maladaptive for a parent to be heavily emotionally involved in the life of their preschool-aged child with ASD. The initial statement is based on the first thought or idea expressed by the respondent about his/her child. This statement is rated independently of the remainder of the speech sample as Positive, Negative, or Neutral. Warmth is based on tone of voice, spontaneity, concern and empathy throughout the speech sample. Warmth is rated as High, Moderate, or Low. Finally, relationship is based on statements that describe the quality of the relationship between parent and child. These statements are rated as Positive, Neutral or Negative. The number of positive and critical comments is also measured. Critical comments are defined as the frequency count of negative statements about the child, the child’s personality, or the child’s behavior. Positive comments are defined as the frequency count of statements of praise, approval, or appreciation. (Note: The current study used these categories as a way of measuring parent emotional talk and did not look at rates of Expressed Emotion given the nature of the sample and purpose of the study.)

A primary coder coded all interviews for the AFMSS components. 20% of interviews were co-coded by a second rater for reliability. Reliability values were generally moderate to strong (Cohen, 1960): Positive comments ICC = 0.82; Critical Comments ICC = 0.616; Warmth weighted kappa = 0.609; Relationship weighted kappa = 0.769; Initial Statement weighted kappa
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

= 0.414. For warmth, there was 77.8% agreement between coders, for relationship, there was 88.9% agreement, and for the initial statement, agreement was 77.8%.

Child Measures

All children were administered the Mullen Scales of Early Learning (MSEL) to assess their developmental and language level. The MSEL includes Visual Reception, Fine Motor, Expressive Language, and Receptive Language subscales (Mullen, 1995).

Children with ASD had confirmed diagnoses of based on a recent Autism Diagnostic Observation Schedule, 2nd edition (ADOS-2) and clinical best estimate. The ADOS-2 is an instrument for diagnosing and assessing autism, which works by conducting several structured and semi-structured tasks involving social interaction between the assessor and the child.

Parental Measures

Parents completed measures of their depressive symptoms and parenting stress at baseline, prior to beginning the SeRenade program:

Depressive symptomatology. Depressive symptomatology was measured with the Center for Epidemiological Studies Depression Scale (CES-D). The Center for Epidemiological Studies-Depression (CES-D) is a 20-item measure that asks parents or guardians to rate how often they experiences symptoms of depression such as restless sleep, poor appetite, and feeling lonely, in the past week. Responses are recorded as a number from 0 to 3 for each item, with 0 being rarely or none of the time, 1 being some or little of the time, 2 being moderately or much of the time, and 3 being most or almost all the time. Overall Scores range from 0 to 60, with high
scores indicating more depressive symptoms (Roth, Ackerman, Okonkwo, & Burgio 2008). The CES-D also provides cutoff scores (e.g., 16 or greater) that help to identify those at risk for clinical depression, with good sensitivity and specificity and high internal consistency (Lewinsohn, Seeley, Roberts, & Allen, 1997). Although the CES-D has somewhat different factor structures across racial and ethnic groups, it can be used appropriately with diverse caregivers.

Parenting stress. The purpose of the Parenting Stress Index, Fourth edition, Short Form (PSI) is to identify stressful aspects of parent-child interaction. The PSI focuses on three major domains of stress: child characteristics, parent characteristics and situational/demographic life stress. The PSI was designed for use with parents of children ranging in age from 1 month to 12 years. The long form includes 101 items with optional 19-item Life Stress scale, and the short form which is only 36 items has three subscales including Parental Distress, Parent–Child Dysfunctional Interaction and Difficult Child. Child and Parent domains combine to form Total Stress Scale (Abidin, 2012)

Analysis Plan

Analyses were conducted in Rstudio. Analyses were conducted separately for the ASD and TD groups. Changes from pre to post-SeRenade for the categorical data derived from the AFMSS were analyzed using McNemar’s test (or McNemar-Bowker’s test), while a Wilcoxon test was used to look at pre-post changes for number of positive and critical comments. Associations between baseline AFMSS-derived variables, age equivalence Mullens scores for developmental
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

level and language skills, PSI scores, and CES-D scores were analyzed using Spearman’s correlation.

Results

Descriptive information is provided in Table 2. As can be seen in Table 2, the parent talk in our sample was generally neutral to positive for both the ASD and TD groups.

Pre-Post Changes in Parent Emotional Talk

Based on the results of the McNemar’s and Wilcoxon tests, there were no significant differences from pre to post in parent emotional talk measures on any variables. While there were individual parents who changed in their ratings from pre to post, these were not consistent in their direction of change. For the Warmth variable, 3 ASD and 2 TD parents were rated higher and 2 ASD and 1 TD parent was rated lower from pre to post. For the Relationship variable, 4 ASD and 1 TD parents were rated higher and 2 ASD parents were rated lower from pre to post. For the Initial Statement variable, 3 ASD and 2 TD parents were rated higher and 5 ASD parents were rated lower from pre to post. As noted above, changes were generally all between neutral and positive (or moderate and high) categories.

Parent Emotional Talk and Parent/Child Characteristics

There were no differences in parent emotional talk at baseline between the ASD and TD groups. For the ASD group, pre-SeRenade critical comments were negatively correlated with parental CES-D scores ($\rho = -0.79$, $p < 0.001$). Post-SeRenade critical comments were positively
correlated with PSI scores ($\rho = 0.58$, $p= 0.03$). For the TD group, post-SeRenade warmth scores were negatively correlated with parent stress index scores ($\rho = -0.82$, $p = 0.006$). There were no other significant relationships.

**Discussion**

Overall, there was very little change in parent talk, as measured by AFMSS variables, from pre to post SeRenade participation for either the ASD or TD group. While some parents changed in their ratings of warmth, relationship, or the valence of their initial statements in their responses following SeRenade participation, the small numbers of people who actually switched categories and the inconsistent directions of change limits the interpretation of the results. Nevertheless, it is interesting to speculate why some participants may have changed in their ratings, as well as why some may not have changed in their ratings.

Individual parents’ changes in warmth, as well as in relationship, may be related to the particular experiences of specific families in the class. Warmth is comprised of ratings of spontaneity, tone, and concern and empathy. For some of the parents of children with ASD, this was their first time engaging in a community activity where they get to see other children similar to their own, and how they interact with their families. This can impact the way they see their own children, as they could potentially begin to feel less alone, and more understood by others in similar situations but it could also make them more aware of their own child’s strengths and weaknesses. Spontaneity, which is largely based on storytelling about the child, may also be impacted by the SeRenade program, as it gives parents an experience with their child that they are able to talk about, and provides them with more stories to tell about their child (though these
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

stories could be positive or negative). Concern and empathy similarly may have been individually impacted by the SeRenade program, as seeing children with similar diagnoses may help parents empathize with their own child, while seeing typically developing children, or children with ASD who are developing quicker than their own child in the classes may also increase their concern for their child. In prior studies, warmth has been found to be positively correlated with family cohesion and maternal support network (Benson et al., 2010).

There are many possibilities that could explain why we failed to measure change in the AFMSS-based measures. For example, the initial statement responses may more have reflected parents’ understanding of the AFMSS question (“tell me about your child, your relationship, and how you get along with each other”). For example, some parents who consistently interpreted this question as more factual, started both their pre and post SeRenade interviews by stating the age of the child, their birth order, their gender, or their name. Other parents who interpreted the question as more relational responded both times by talking about what their child means to them. Alternatively, parents may have changed their ratings because they may not have felt the need to give the same information when completing the interview a second time.

The lack of change in parent talk may be in part due to generally very positive talk at the pre-interview. Parents may have been particularly positive about their child in the pre-SeRenade interview because of perceived pressures related to not knowing the SeRenade staff, and wanting to be selected for the program. It is possible that some parents, in an effort to seem like a good fit for the program, or an overall “good parent”, may have felt the need to be more positive in their pre-SeRenade interview, whereas after participation in program, they may have been more honest or even more negative than at the beginning. Alternatively, the sample of parents who
seek out opportunities to participate in parent-child music programming may be biased to parents with higher levels of positive emotions. This is supported by comparing the proportions of different variables in from this study to those in the Benson (2010) study, as many of our variables had zero negative codes, whereas Benson et al (2010) recorded higher proportion of negative codes from parents. Our results also showed individual differences in the relation between greater parenting stress (PSI scores) and increased critical comments for the ASD group post-SeRenade, while greater parenting stress scores in the TD group were related to lower warmth scores. This exemplifies the importance of examining the parental attributes in studying parent emotional talk, rather than focusing only on the behaviors and attributes of the child.

While it was interesting that parents in the ASD group with higher depression scores had fewer critical comments Pre-SeRenade, this could be due to limited range, as only two parents had depression scores that would be considered “at risk”. These parents also may have felt the need to stay positive during their interview, or have had shorter responses in general, leading to fewer comments. It is also possible that parents with higher depression scores may direct their critical feelings towards themselves, rather than at their child, as self-blame is often considered a primary feature of depression (Abramson & Sackheim, 1977).

There are several limitations to the study sample including the small sample size. It is also important to note that we had two sibling pairs within the study, one pair with two ASD children, and the other pair with one typically developing child (though the child was later diagnosed with a language impairment) and one child with ASD. This could potentially impact our data because for each pair, their parent did the same interview twice, one for each child, one right after the other. Another limitation of this study is the fact that parents’ responses could have
been based on the parents’ interaction with their child on the day of the interview, as some parents had difficulties with their children prior to the interview that may impact their responses.

Future directions of this study may include going more in depth in analyzing the changes, if any, between spontaneity, tone of voice, and concern and empathy between pre and post-SeRenade interviews, and their impact on the warmth scores over time.

Another direction for this research would be to compare parent emotional talk in families who do and do not choose to participate in integrated community programs for children with ASD. The community inclusion experience of parents, how they are impacted by these experiences, and parent emotional talk and could be helpful in gathering more information about the impacts of community experiences. It has been reported that families with children with autism participate less in recreational, social, and cultural activities than do families of typically developing children (Askari, Anaby, Bergthorson, Majnemer, Elsabbagh, & Zwaigenbaum, 2015). This lack of social support can lead to parental withdrawal from their communities because of their negative ideas of how their child will be perceived, which increases stress levels (Sanders & Morgan, 1997). Lack of social support has also been shown to lead to higher levels of depression, anxiety, and anger in parents, with social support being the greatest predictor of depression and anxiety in parents (Gray & Holden, 1992). Parental warmth ratings are related to maternal support networks, suggesting that increased social support for the mother may have positive implications on their feelings towards their child (Benson et al., 2010). While there were no significant changes in our sample, we do not know what profile (or change in profile) would be seen in families not participating in a community music program. To further this research, it would also be helpful to look at the impact of inclusion in a community music class on parents’
PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

feelings of social support. Within the SeRenade program, parents have discussed their appreciation for a program in which their child does not stand out and the positive impacts for both the child and the parent (Lense et al 2018).

The lack of findings with the AFMSS-derived variables differs from prior findings on parent emotions in regard to SeRenade or other parent-child music classes using other interview approaches (Allgood, 2005; Lense et al., 2018), as well as positive impacts for parent mental health or the parent-child relationship reported for SeRenade (Lense et al., 2018) and other parent-child music programs (Nicholson, 2012). For the reasons outlined above, the AFMSS-derived variables may not have been sensitive to pick up on these differences. Future studies should consider using other measures when evaluating changes in parent emotional talk.
# PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade

Table 1: Parent Child Characteristics Means (SD)

<table>
<thead>
<tr>
<th></th>
<th>Nonverbal Mullens (SD)*</th>
<th>Verbal Mullens (SD)*</th>
<th>CES-D(SD)</th>
<th>PSI(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASD</strong></td>
<td>22.93 (12.17)</td>
<td>20.1 (12.15)</td>
<td>7.79 (4.85)</td>
<td>74.43 (9.9)</td>
</tr>
<tr>
<td><strong>TD</strong></td>
<td>37.67 (15.09)</td>
<td>37 (12.64)</td>
<td>12.56 (6.13)</td>
<td>73.78 (14.46)</td>
</tr>
</tbody>
</table>

*Age-equivalence scores in months (Standard Deviation); The nonverbal score represents the Visual Reception subscale; the Verbal score is the average of the Receptive and Expressive language subscales

Table 2: Descriptive statistics for AFMSS components

<table>
<thead>
<tr>
<th></th>
<th>ASD Pre</th>
<th>ASD Post</th>
<th>TD Pre</th>
<th>TD Post</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial Statement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Initial Statement</td>
<td>57%</td>
<td>43%</td>
<td>33%</td>
<td>56%</td>
</tr>
<tr>
<td>Neutral Initial Statement</td>
<td>43%</td>
<td>57%</td>
<td>67%</td>
<td>44%</td>
</tr>
<tr>
<td>Negative Initial Statement</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Warmth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Warmth</td>
<td>43%</td>
<td>57%</td>
<td>56%</td>
<td>67%</td>
</tr>
<tr>
<td>Moderate Warmth</td>
<td>57%</td>
<td>36%</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>Low Warmth</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Relationship</td>
<td>71%</td>
<td>86%</td>
<td>89%</td>
<td>100%</td>
</tr>
<tr>
<td>Neutral</td>
<td>29%</td>
<td>14%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>Relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Negative Relationship</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Average Number of Positive Comments (Standard Deviation)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.14(1.6)</td>
<td>3.5(2.5)</td>
<td>4.1(2.6)</td>
<td>4.4(2.3)</td>
</tr>
<tr>
<td><strong>Average Number of Critical Comments (Standard Deviation)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.57(.76)</td>
<td>0.71(1.2)</td>
<td>0.78(2)</td>
<td>0.11(.33)</td>
</tr>
</tbody>
</table>
References


PARENT EMOTIONAL TALK AND PARTICIPATION IN SeRenade


Guidance Services, Inc.

of depressive symptoms in dementia caregivers: A structural equation model of ethnic

Sanders, J. L., & Morgan, S. B. (1997). Family stress and adjustment as perceived by parents of
children with autism or down syndrome: Implications for intervention, Child & Family Behavior
Therapy, 19(4), 15-32.


treatment for children with autism spectrum disorder. The Curb Center for Art, Enterprise, &
Public Policy at Vanderbilt, 1-8.

Thompson, G. (2012). Family-centered music therapy in the home environment: Promoting
interpersonal engagement between children with autism spectrum disorder and their parents.

Music Therapy Perspectives, 30(2), 109-116.

effectiveness of a short-term group music therapy intervention for parents who have a
child with a disability. Journal of Music Therapy, 49(1), 23-44.