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Caring For, About, and With: Exploring Musical Meaningfulness Among Suzuki Students and Parents

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An investigation of the relationships between empathy, music learning, and shared music values may provide new insights into the ways that musical meaningfulness and the symbiotic eudaimonic ideal – "flourishing of oneself *and* of others" – might be cultivated. We investigated the relationships between parent perceptions of children's empathy, parent beliefs and values about music, and formal Suzuki training over a period of 6 months, to understand ways in which shared music learning experiences might relate to emotional and musical connections between parents and children. Participants were parents of 48 Suzuki students at a structured Suzuki school in the Midwestern United States. We designed a survey containing an adapted version of the Griffith Empathy Measure for children with additional questions regarding family demographics and values regarding music education. Participants completed the survey at the start of the lesson year, and again 6 months later. Children who persisted in group lessons throughout the study began with significantly higher empathy scores, compared to those children who did not participate in group lessons. Children's initial empathy scores were significantly positively correlated with parents' ratings of the importance of music instruction generally, and of Suzuki instruction particularly, to their family. A significant but moderate correlation was found between initial empathy scores and the belief that music would help the child succeed in other areas. This exploratory study highlights potential relationships between family music values, children's empathy, and participation in group music-making. Our findings are consistent with research demonstrating that child and parent personalities predict the duration of formal music training for children. They also support the philosophy of musical meaningfulness, by suggesting ways in which meaningful connections may be forged simultaneously between people who care for one another, and between people and the activities they care about. Our results point to the importance of providing a variety of music learning activities and structures that reflect the personality, needs, and interests of children and parents. We offer specific recommendations for future research to draw further insights and implications about these relationships.

Keywords: empathy, eudaimonia, group music learning, musical connection, musical meaningfulness, music values, Suzuki approach

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INTRODUCTION

Music making is a virtually universal human behavior, observed in every human culture (Nettl, 1983). Music is important in a wide variety of important social events, including weddings, funerals, and religious ceremonies, and also during everyday activities like listening to the radio or watching television (DeNora, 2000). The act of making music generally involves the participation of other musicians, singers, dancers, or audience members (McNeill, 1995). Behaviors like singing, clapping, or dancing to music not only allow for individual expression but are thought to convey unity as part of social, religious, and cultural activities among humans (Huron, 2006).

Philosophers have associated music-making, human connection, and ethical well-doing since the time of Aristotle and Plato (Elliott, 2020). As Bowman (2006) has stated, music-making is "crucial to human flourishing, or eudaimonia. Music teaches us things about our common humanity that are worth knowing, and renders us less vulnerable to forces that subvert or compromise human well-being" (p. 39; as cited in Elliott, 2020, p. 117). Yet the potential for music to enhance human flourishing does not appear to stem from music's power in its own right, but from a dynamic interplay of human interactions as people engage together in a musical activity that has shared value and meaning (Wolf, 2010; Silverman, 2012, 2013).

Such reciprocal, relational experiences (caring *for*), as well as deepened value for certain musical activities (caring *about*), crystalize further experiences of musical meaningfulness (Silverman, 2013; see also Noddings, 1984, 2007). Meaningful musical connections are said to be forged simultaneously between people who care for one another, and between people and the activities they care about – through "a rich and diverse web of intersubjective relationships" (Silverman, 2013, p. 33) and through "communion that comes from enthusiasm for an immersion in a shared activity" (Wolf, 2010, p. 129).

Shared Music Making, Care, and Empathy

The interrelationships between shared music making, caring relationships, and empathy have also been explored by Hendricks (2018), who cautioned scholars and practitioners against viewing empathy as an end, rather than a means, to positive social engagement. The author described how cognitive empathy (i.e., perspective taking) or affective empathy (i.e., shared feelings; see Preston and De Waal, 2002; Dadds et al., 2008) are not necessarily positive or negative in their own right, but may be cultivated into compassionate or motivational empathy, which inspires individuals to act on thoughts or feelings in ways that may be helpful to others (Hoffman, 1987; Ekman, 2008; Goleman, 2010). In music learning settings, compassionate empathy may be forged through musical relationships that emphasize "caring *for*" in tandem with "caring *about*" (Hendricks, 2018, p. 57, emphasis added). The author further described the need to refocus societal and educational attention from an over-emphasis on caring *about* to allow space for caring *for*:

> It is likely not coincidental that, as people. have shifted [their] sights to a microscopic focus on things – achievements, merits, test scores – rather than on people and experiences, we have simultaneously become a society that is statistically less trusting of others [.] As [educational] administrators and policymakers focus on "racing to the top" or attempt to motivate by pitting schools, programs, and students against one another [.], we naturally move away from the very essence of trust, or an "expectation that other people's future actions will safeguard our interests" (Smith and Paxton, 2010, p. 205). These outdated approaches of fear-based motivation scarcely help, as we know that such an atmosphere actually interferes with motivation and productivity (Hendricks, 2018, p. 63).

Empathy, cooperation, and shared values work together: "Effective cooperation requires being exquisitely in tune with the emotional states and goals of others" (de Waal, 2010, p. 22). Such attunement to others' feelings as well as their values and goals may be the essence of a third kind of caring – caring *with* – wherein relational experiences become mutually reinforcing (Hendricks, 2018, 2021). Acts of caring for, about, and with others, while making music together, may help to forge and reinforce human connections (Hendricks, 2021). Particularly in music learning settings where musickers (Small, 1998) share common bonds, "our practice of becoming more sensitive to sound can transfer to the myriad other ways in which we cultivate sensitivity" (Hendricks, 2018, p. 63).

Research has linked empathy with higher emotional response to music (Lyvers et al., 2020), and higher empathy has been associated with attention to expressed musical emotion (Egermann and McAdams, 2013). Although music preference has been shown to predict expressions of empathy (Clark and Giacomantonio, 2013), it is possible that identification with, or preference for, certain performers, artists, and/or lyrics might moderate emotions felt with certain musics (Evans and Schubert, 2008; Clark and Giacomantonio, 2013). Therefore, whereas individuals with low empathy might construct unique and distinct musical identities (Schubert, 2017), higher empathy and shared musical expression might work together in the construction of collective musical identities (Schubert, 2017; see also Silverman, 2013).

Music, Empathy, and Prosocial Behavior

Music is argued to facilitate the development of socio-emotional competencies including emotional recognition, prosocial behavior, and empathy (Saarikallio, 2019). Prosocial behavior is considered a manifestation of empathy (De Kemp et al., 2007), and a growing body of literature in music and psychology research points to the relationship between shared music-making and/or synchronous movement with prosocial behavior. Adults who sing together or synchronize their movements have been shown to be subsequently more cooperative with one another (Wiltermuth and Heath, 2009). Synchronous movement also increases ratings of trust (Launay et al., 2013) and altruistic behavior (Valdesolo and DeSteno, 2011) toward others. Adults who engage in synchronized behaviors are not only more memorable (Woolhouse et al., 2016), but also rated as

being more similar, to those with whom they synchronize (Valdesolo et al., 2010).

Although adults are capable of synchronizing their movements in the absence of music, the regular, predictable temporal structure of music provides a particularly effective context for two or more people to coordinate with each other (Trainor and Cirelli, 2015). Adults who engage in synchronized finger tapping in the absence of music rate one another as more likeable and more affiliated (Hove and Risen, 2009), and those who unwittingly synchronize footsteps with an experimenter are more likely to comply with instructions that would cause harm to another (Wiltermuth, 2012), indicating the formation of a bond with the experimenter.

The prosocial effects of interpersonal synchrony are not specific to adults and can also be observed earlier in development. Music with a steady beat facilitates interpersonal synchronization, and infants whose movements synchronize with another person while listening to music are subsequently more likely to help that person (Cirelli et al., 2014) and also more likely to help a third party who poses as a 'friend' of that person (Cirelli et al., 2016). Children who engage in musical play together show more spontaneous helping behavior and cooperation (Kirschner and Tomasello, 2010), and musical play between preschoolers and adults has been shown to result in significantly more interpersonal synchrony and spontaneous helping behavior, regardless of the verbal content of the music (Beck and Rieser, 2020).

There is also evidence for the impact of formal music instruction on prosocial behavior and empathy, although the association is not yet fully understood. Music classes for infants and their parents accelerate social development and communicative behavior (Gerry et al., 2012). Children with longer participation in early childhood music classes are more likely to show prosocial behavior like helping (Ilari et al., 2020), and preschool music classes have been shown to increase children's prosocial behavior (Rabinowitch and Meltzoff, 2017) and empathy (Rabinowitch et al., 2013). Children who sing in a choir have been found to cooperate more with other choir members, even putting needs of others above their own (Good and Russo, 2016). However, other work showed that, after controlling for self-selection, increased prosocial behavior after group music training occurred only in those children who started out with poor prosocial skills (Schellenberg et al., 2015).

Previous work on music, empathy, and/or prosocial behavior has either been conducted with individual children in a lab setting (Kirschner and Tomasello, 2010; Cirelli et al., 2014) or focused on group (Rabinowitch et al., 2013; Schellenberg et al., 2015; Good and Russo, 2016) or individual (Lyvers et al., 2020) musical experiences that are not structured around a particular pedagogical method. Furthermore, although the aforementioned research highlights potential relationships between shared music-making and caring *for* others (e.g., empathy and/or prosocial behaviors), these studies have focused relatively less on the second and third aspects of the musical meaningfulness and connection equation as described previously; that is, the role of caring *about* and caring *with* (e.g., shared musical meanings and values).

An investigation of the relationships between shared music-making, empathy, and shared musical values has the potential to more fully reveal the essence of musical meaningfulness and connection as articulated by Silverman (2013) and Hendricks (2021). The purpose of this study, therefore, was to explore potential ways in which shared music making, empathy, and musical values might intersect. We had two aims: first, to develop and validate a survey to measure parent reports of children's empathy and family valuing of, and commitment to, Suzuki music instruction (as described below); and second, to investigate potential relationships between parent ratings of children's empathic traits, family valuing of music instruction, and persistence in Suzuki group lessons over a period of 6 months. We intended for this information to expand upon current understandings of the relationships between music, empathy, and musical values and to inform future research in this area.

Group-Based Suzuki Instruction

In the current study we chose a structured educational setting that explicitly focuses on both individual and group musical skills using Suzuki pedagogy, an approach that has clear and stated aims to develop personal and interpersonal skills in addition to musical ones (Hendricks, 2011, 2015). The Suzuki approach extends beyond musical goals of knowing and doing, to include goals of "learning to be, and learning to live together" (Menghini, 2020, p. 172). In addition to regular private lessons and home practice sessions with parents, Suzuki students are expected to engage regularly in social music-making experiences with other children, including group lessons in which they play shared repertoire and learn upcoming repertoire aurally by listening to more advanced students perform (Suzuki, 1969/1981; Reuning-Hummel et al., 2016). In a recent survey of 1,128 Suzuki teachers in Canada and the United States, 83% of respondents reported providing group lessons as a complement to private instruction (Mitchell et al., 2016b), with reported benefits of Suzuki group lessons including social contact, camaraderie, and a sense of community (Guerriero et al., 2016).

First Character, Then Ability

We considered Suzuki instruction ideal for a study of music, values, and empathy because of its philosophical emphasis on developing sensitivity toward other people. Shinichi Suzuki, the founder of the method, stated explicitly that the purpose of his approach was to nurture "first character, then ability" (Suzuki, 1969/1983, p. 66), and that he and the teachers at his institute used the violin (and later other instruments as well) as a means of teaching kindness, respect, and sensitivity to others. In relation to music's potential to influence empathic characteristics specifically, Suzuki taught that "the heart that feels music will feel people" (Suzuki, 1969/1981, p. 40). Because Suzuki believed that the tone quality a person produced on a musical instrument was a means of communicating the nature of a person's moral character, Suzuki emphasized the development of resonant tone, and the ability to discern differences in tone quality, as one means

of fostering person-to-person understanding (Hendricks, 2011; Thompson, 2016).

Musical Parenting and Parent Involvement

Parent beliefs, attitudes, and expectations influence musical interactions with children (Okagaki and Bingham, 2005) and parents may seek formal musical experiences for children to promote intrinsic benefits like enjoyment, foster social and emotional competencies, and develop musical skills (Cho, 2015; Koops, 2018; Hwang and Cho, 2019). Generally, parents agree that music is an important part of children's lives (Johnson-Green and Custodero, 2002) and parents play an important role in their children's early musical experiences (McPherson, 2009).

Parent values tend to vary considerably depending on the socio-cultural contexts they are in (Ilari, 2013; Cho, 2015); parents' intrinsic or extrinsic motivations (Dai and Schader, 2001); parent perceptions of their child's talent (Witte et al., 2015); and parental musical background (Johnson-Green and Custodero, 2002). Positive parental expectation, coupled with active parental support, is viewed as a strong predictor of children's musical involvement and progress particularly in the beginning stages of music learning (Davidson and Borthwick, 2002; McPherson and Davidson, 2006). Although studies of musical parenting often focus on children who are enrolled in formal, instrumental music education (Duke, 1999; Dai and Schader, 2001; McPherson, 2009; Creech, 2010) or early childhood music classes (Koops, 2011), children and families also engage in informal musical behavior in public places (Custodero et al., 2016) as part of their day-to-day lives.

Suzuki parents are involved in their child's music training to a degree that is rarely observed in more traditional forms of music instruction. According to Suzuki, "the only concern for parents should be to bring up their children as noble human beings" (Suzuki, 1969/1983, p. 15), and one tenet of the Suzuki philosophy is that children can start learning from very young ages, with the nurturing and support of their parents (Hendricks and Bucci, 2019). As a result, parents are expected to attend all lessons along with their child, and are often referred to as the child's "home teacher" (O'Neill, 2003).

Because of this close parental involvement, it is common to offer parent education or orientation for new families joining a music program. This training might cover principles of the Suzuki philosophy like why and how to teach young children, practical instrument-specific basic information, and guidance about expectations and progress. More than three-quarters of North American Suzuki teachers reported offering formal parent education courses as part of their music programs (Einarson et al., 2016), making Suzuki parents more likely to understand and value unique features of the method like group-based lessons or the development of personal skills alongside musical skills.

The initial decision to enroll in music lessons is often made by a parent, rather than by a young child. Given that Suzuki students are often as young as 1, 2, 3, or 4 years old (Trainor et al., 2003), parents necessarily play a significant role in their children's learning and success. In fact, parent personality also predicts the *duration* of young children's training (Corrigall and Schellenberg, 2015) even after controlling for demographic factors like education and income. Data on socio-economic status (SES), culture, and parent personality show that certain types of parents are more likely to enroll children in music lessons (Schellenberg, 2006; Ilari, 2013) and more likely to persist once enrolled (Corrigall and Schellenberg, 2015). Because Suzuki parents play an exceptionally large role in their children's training (O'Neill, 2003), we considered it important to explore parents' beliefs and values about music learning, and about Suzuki instruction specifically, when considering the relationships between shared music making, values, and empathy.

MATERIALS AND METHODS

Participants

For this exploratory study, we recruited parents of students in a Suzuki instrumental music program in the Midwestern United States ($N = 48$). We targeted one well-established Suzuki program whose mission and aims were highly aligned with the principles and practices set forth by Shinichi Suzuki, as articulated through his writings (Suzuki, 1969/1981, 1969/1983). All parents of students in the program were invited to participate. The parent participants represented a relatively elite portion of the United States population, with an average annual household income between $90,000 and $120,000 USD and 37.5% of households having at least one parent with a doctoral degree, 37.5% having at least one parent with a master's degree, 23% having at least one parent with a bachelor's degree, and only one household with neither parent having a bachelor's degree.

The students ranged in age from 1 to 17 years old, with a mean age of 9.38 ($SD = 4.10$). The gender of students was 52% female and 48% male. The most commonly reported instrument of study was violin (54%), with other areas of primary study including piano (13%), viola (11%), cello (6%), voice (8%), and early childhood music education for children ages 1 to 3 (8%). Students had received training in their primary area for an average of 3.72 years ($SD = 3.37$). All students in the instrumental programs took part in private lessons and were also encouraged (although not required) to participate in group lessons. Parents who participated in the research were not compensated and consented to research procedures as approved through the first author's university Institutional Review Board.

Survey

Using an adapted version of the Griffith Empathy Measure (GEM), we designed an exploratory survey that could be administered outside a lab setting to detect relationships between parent perceptions of children's empathy and social skills, family demographic characteristics, parent beliefs, and parent values. Parents completed an online survey twice during the lesson year: at the beginning of the school year, and again 6 months later. The survey consisted of three parts: (a) demographic information, including child age, child's musical training, family income, and level of parental education; (b) parent's stated beliefs and values about music, commitment to music lessons, and knowledge about

the Suzuki method; and (c) parent perceptions of their child's empathic traits.

The survey had a total of 45 questions, took approximately 10–20 min to complete, and was distributed via email to be completed electronically at the parent's convenience. An electronic link was sent out via email to all participants simultaneously, with follow-up reminder emails sent one and 2 weeks later. The survey link was closed 3 weeks after the first email invitation. Both surveys contained the same content, and were administered using the same email invitation procedure. Details of each section of the survey are provided below.

Demographic Information

In addition to answering questions about family income, education, and languages spoken in the home, parents also provided information about their child's age, instrument of study, and duration of private and group training. The demographic profile also included information regarding group lesson participation so that we could determine persistence in group lessons from Time 1 to Time 2, as a means of gauging parent and student commitment to Suzuki group lessons.

Parent and Family Music Values

Questions addressing beliefs or values included: the extent to which parents were familiar with Suzuki philosophy, as measured by the number of times they had read Suzuki's seminal work *Nurtured by Love* (Suzuki, 1969/1983); the importance of music to their family; the importance of Suzuki instruction to their family; the extent to which they felt music would help their child succeed in other areas; and the number of days each week that the parents practiced with their children. Beliefs and values items were rated on a 7-point Likert scale ranging from "completely agree" to "completely disagree" (see **Table 1**), with items adapted from previous surveys intended to study musical beliefs and values more broadly (McPherson and Hendricks, 2010; McPherson and O'Neill, 2010).

Empathy Measure

Empathy is notoriously difficult to assess in young children via self-report (Eisenberg and Miller, 1987). Therefore, we chose to use an adapted version of the GEM, a short parent report tool that has high reliability and validity across genders and ages of children (Dadds et al., 2008). Empathic character traits of children were assessed with 23 items from the GEM (Dadds et al., 2008), which was adapted from the Bryant Index of Empathy (Bryant, 1982) to obtain parent reports of children's empathy, using a 9-point semantic differential scale from −4 to 4 (see **Table 2**).

TABLE 1 | Musical values survey items.

1.	Music is important to our family.
2.	Suzuki instruction is important to our family.
3.	Music learning will help my child succeed in other non-musical areas.
4.	Music practicing is one of the most important activities we will do in our home.
5.	How many days per week do you actively practice lesson material with your child?

Given that the GEM is a rating scale for use by parents, it necessarily entails some degree of subjective judgment on the part of the respondent, e.g., "My child doesn't understand why other people get upset." It is possible that parent responses are influenced by social desirability bias or other confounding factors (Morsbach and Prinz, 2006; Ilari, 2018). However, the original GEM authors found that ratings of children's empathy converged with independent reports of children's prosocial behavior, suggesting that parent reports reflect children's observed behavior with reasonable accuracy. The measure has been considered appropriate for use either as separate cognitive and affective items, or for one aggregated total empathy score (Dadds et al., 2008). In alignment with previous research, GEM items 3, 6, 20, and 23 were reverse-coded since a negative answer on these items reflects an empathic trait (Bryant, 1982).

Reliability and validity of empathy measure in a Suzuki context

We computed Cronbach's alpha to test internal consistency reliability among GEM items in the present context. Cronbach's alpha revealed satisfactory internal consistency with our sample (0.86). However, four items demonstrated slightly less consistency with other items, with their potential deletion resulting in a higher overall alpha. **Table 2** shows all 23 GEM items, with relative deletion effects for each.

TABLE 2 | Original 23 GEM items with Cronbach's alpha deletion effects.

1.	Gets sad to see a child with no one to play with.	0.852
2.	Treats cats and dogs like they have feelings.	0.859
3.	Reacts badly when they see people kiss and hug in public.	0.872*
4.	Feels sorry for another child who is upset.	0.852
5.	Becomes sad when other children are sad.	0.851
6.	Doesn't understand why other people cry out of happiness.	0.868*
7.	Gets upset seeing another child being punished for being naughty.	0.862
8.	Seems to react to the moods of people around them.	0.857
9.	Gets upset when another person is acting upset.	0.853
10.	Likes to watch people open presents, even if not one for them.	0.850
11.	Cries or gets upset when seeing another child cry.	0.853
12.	Gets upset when seeing another child being hurt.	0.847
13.	Doesn't seem to notice when I get sad.	0.855
14.	Laughs when seeing another child laugh.	0.854
15.	Gets sad when watching sad movies or TV.	0.858
16.	Becomes nervous when other children around them are nervous.	0.863*
17.	Can't understand why other people get upset.	0.854
18.	Gets upset when seeing an animal being hurt.	0.850
19.	Feels sad for people who are physically disabled.	0.855
20.	Rarely understands why other people cry.	0.858
21.	Would eat the last cookie, even when they know someone else wants it.	0.851
22.	Acts happy when another person is acting happy.	0.855
23.	Can continue to feel okay even if people around are upset	0.867*

**Deletion would result in a higher reliability coefficient.*

In an effort to determine whether to include or eliminate those items whose deletion would slightly increase internal consistency, we considered each according to the particular characteristics of Suzuki students and parents. Items 16 ("becomes nervous when other children. are nervous") and 23 ("can continue to feel okay even if people around are upset") may have potentially conflicted in parents' minds with the value placed in Suzuki and in classical music performance generally of putting on a good show no matter what distractions arise in a performance setting.

Items 3 ("reacts badly when they see people kiss and hug in public") and 6 ("doesn't understand why other people cry out of happiness") may relate to differences among children's developmental maturity and social/cultural understanding, particularly considering the relatively large age range in the present sample. We also assert that the notion of "reacting badly" might have elicited mixed answers, as a child might act up due to affective empathic response to a kiss or hug that is awkward or not well received.

Although the inclusion of all items would still result in a sufficiently high alpha to produce one aggregated empathy index, we chose to delete those items so as to include only those questions that best represented our present sample of Suzuki students, as described previously. The final reliability estimate, which we recalculated with the 19 remaining empathy items, was 0.89. For each survey, we calculated a composite empathy score for each participant by computing the mean of those 19 item responses.

Analysis

Survey responses for all 48 children in the sample were first used to evaluate the internal consistency of the GEM, as described above. All 48 students were enrolled in Suzuki lessons (individual studio or early childhood classes) throughout the course of the study. Of the 48 children with a parent who responded to the survey at Time 1, 29 also completed the survey at Time 2. Of those 29 students, 17 reported being enrolled in group classes at Time 1, although only nine reported that they had persisted in group class and were still participating 6 months later at Time 2.

To determine relationships between parent beliefs and values and initial empathy ratings, we computed Spearman's rho (2-tailed, cases excluded pairwise) with all 48 parent responses from Time 1. With the 29 students whose parents completed both surveys, we conducted a 2 × 3 ANOVA with composite empathy score (Time 1 and Time 2) as a within-subjects factor and group lesson persistence (persisted, discontinued, and never enrolled) as a between-subjects factor to determine potential relationships between empathy scores and group lesson participation.

RESULTS

Initial Survey: Family Music Values and Parent Reports of Children's Empathy

In the initial survey, parent reports of children's empathy were significantly positively correlated with parents' estimations of their family's valuing of music instruction generally ($\rho = 0.62$, $p < 0.001$) and of Suzuki instruction particularly ($\rho = 0.59$, $p < 0.001$). This suggests that parents who placed a higher value on music instruction were also more likely to report higher levels of children's empathy at the outset of the study. Furthermore, given that parents were reporting the child's empathy scores, these findings suggest that those families who were more committed to Suzuki music learning may also have been more attuned to the needs and feelings of one another (whether that was the child's own empathy, or the parent's awareness of the child's empathy).

A significant but moderate correlation was found between initial empathy scores and the belief that music would help the child succeed in other areas ($\rho = 0.47$, $p = 0.001$). The correlation between empathy scores and the amount of time that parents practiced with their child was not significant ($p = 0.21$), which might suggest that shared music-making alone may not have been as salient to emotional attunement as was the combination of music making and family valuing of music.

Second Survey: Children's Empathy and Persistence in Group Music Lessons

Across the sample of all 29 children whose parents completed both Time 1 and Time 2 surveys, there was no significant increase in children's composite empathy scores over the course of 6 months of music lessons. Notably, however, there was a significant between-subjects effect for group lesson persistence, $F(2, 26) = 7.88$. $p = 0.004$ (see **Figure 1**). *Post hoc* analyses revealed that children who persisted in group class over the course of 6 months had significantly higher empathy scores in the initial survey, compared to those who took individual lessons but never participated in group lessons ($p = 0.003$).

When examining differences in the empathy scores between the three categories of group music lesson participants (persisted, discontinued, and never enrolled), we noted non-significant trends suggesting that group music training might lead to an increase in empathy. Mean composite

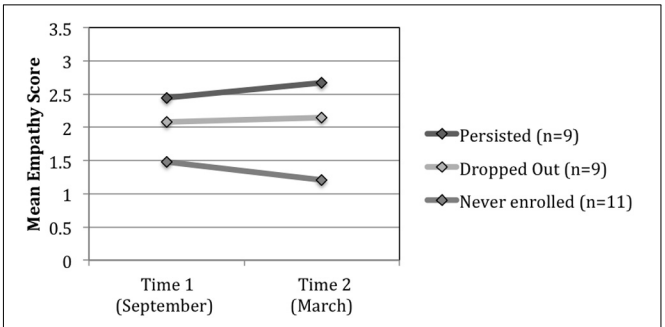

FIGURE 1 | Between-subjects effect for group persistence, $F(2, 26) = 7.88$, $p = 0.004$. *Post hoc* comparisons revealed with a significant difference ($p = 0.003$) in Time 1 empathy scores between children who persisted in group class between Time 1 and Time 2, compared to those who never participated.

empathy scores for children who stayed in lessons for the entire 6-month period increased from M = 2.44 (SD = 0.66) to M = 2.67 (SD = 0.62), while mean composite empathy scores for those who did not participate at all decreased from M = 1.48 (SD = 0.75) to M = 1.21 (SD = 0.78) over the same period. This trend would need to be studied with a larger sample, and over a longer duration, before an assumption could be made about the relationship between group lesson persistence and the development of prosocial behavior.

DISCUSSION

Through this exploratory study we hoped to provide further insights into the ways in which the eudaimonic ideal – flourishing of self and others (Smith and Silverman, 2020) might be encouraged within music learning settings. We studied the interplay of children's empathy, family music values, and commitment to group music learning in the context of Suzuki instruction, a music learning approach that is explicitly intended to promote character development and human connections (Hendricks, 2011, 2015). This study expands upon prior research by adding the element of shared musical values to the growing body of literature investigating relationships between shared music making and empathy. The purpose of this study, therefore, was to explore potential ways in which group music making, family music values, and empathy might intersect. By so doing, we hoped to offer preliminary insights into the philosophies of musical meaningfulness (Silverman, 2013) and connection (Hendricks, 2021) by considering the interplay of different types of caring (caring *about* music and music instruction, caring *for* others both within and beyond music-making settings, and caring *with* others while engaged in music activities with shared value).

This study had two primary aims. The first was to test the efficacy of a survey to measure parent reports of children's empathy and family valuing of, and commitment to, Suzuki music instruction. Parent reports of family musical values were assessed using a 7-point Likert scale ranging from "completely agree" to "completely disagree," with scale items adapted from previous music values research (McPherson and Hendricks, 2010; McPherson and O'Neill, 2010) to fit within a Suzuki context. Children's empathy was assessed through a scale based on the GEM (Dadds et al., 2008) which we adapted for use with Suzuki parents and students. We ensured internal consistency for the empathy portion of the survey by computing Cronbach's alpha and deleting four items that were less representative of our present sample of Suzuki students. The final reliability estimate for the 19-item empathy portion of the survey, after deletion of those items, was 0.89. We then calculated a composite empathy score for each participant by computing the mean of those 19 item responses.

The second aim was to investigate potential relationships between parent ratings of children's empathic traits, family valuing of music instruction, and persistence in Suzuki group lessons over a period of 6 months. We chose to study Suzuki students and parents particularly because Suzuki pedagogy emphasizes sensitivity to others from a very young age, encourages parent involvement, and combines private music instruction with group-based lessons where children interact with other children outside the family. The Suzuki emphasis on shared music learning experiences, coupled with its philosophical basis in character development, seemed a good fit for studying musical meaningfulness (Silverman, 2013) and connection (Hendricks, 2021) as an aspect of the eudaimonic ideal, or flourishing of self and others (Smith and Silverman, 2020) in a music learning context.

Parent estimations of children's empathy at the outset of the study were significantly correlated with parent reports that both music in general, and Suzuki music in particular, were important to the family. This finding suggests that parents who placed a higher value on music instruction at the beginning of the study were also more likely to report that their child demonstrated high levels of empathy. Given the emphasis of the Suzuki philosophy on the development of prosocial skills both in and beyond music learning settings (as described previously), it is possible that (a) families committed to the approach were, in fact, applying its prosocial tenets in their daily practices beyond music instruction; and/or (b) families who were already relatively emotionally attuned to one another were more likely to value the Suzuki philosophy and approach. In any case, the significant correlations between family musical values and parent reports of children's empathy illustrate the symbiotic relationship of caring *for*, *about*, and *with* one another and the music learning experience, which is the essence of the musical meaningfulness and connection equation described previously.

It remains possible that the significant difference in children's composite empathy scores at Time 1 actually reflects a difference in the parents who provided the assessed values, rather than a difference in the children being assessed. Parents have a disproportionate influence on young children's likelihood of persisting in lessons, because they not only make the decision to enroll, pay the fees, and make sure the child attends, but, in the case of Suzuki lessons, parents also attend lessons themselves and guide the daily home practice and listening (O'Neill, 2003). It is unsurprising, given this sustained investment, to note that parent personality also accounts for the duration of formal music training for young children (Corrigall and Schellenberg, 2015). Therefore, it is plausible that parents who rated their children as having lower empathy early in the year may have been the ones less likely to persist in taking their children to group lessons. It is not possible in the current study to determine whether persistence is correlated with other parent characteristics, but future work should investigate the role of parents' beliefs, values, and dispositions as they relate to the outcomes of Suzuki instrumental music students.

Parent reports about their values also provide an interesting lens through which to contemplate their behavior. For

example, 90% of parents in our sample reported that group class was an important part of Suzuki music training, but less than one-third of the children in our sample actually persisted in group classes for the duration of the study. In a survey of more than 1,000 practicing Suzuki teachers (Mitchell et al., 2016a), researchers found that getting students and parents to attend regularly was the number one challenge reported regarding group class teaching, and getting parents to understand the value of group class was fifth most common. Other literature has highlighted the difficulty that many contemporary parents face as they try to juggle the demands of Suzuki parenting with other personal and family conflicts (Hendricks, 2015; Menghini, 2020). This disconnect between values and practices merits further investigation, particularly given that parents in this study almost unanimously endorsed the value of group class even in the face of low attendance. Further research in this area may highlight aspects of values and persistence as they relate to musical meaningfulness (Silverman, 2013).

We noted with interest that children's initial empathy scores were not correlated with the amount of time parents reported spending on home music practice with their child. Although it may be tempting to assume that this finding minimizes the importance of parent–child musical bonding in relation to empathy, it is important to remember that our sample encompassed a large range of student ages – a point that raises two issues. First, Time 1 empathy scores and practice reports reflected one snapshot in time, and do not account for the amount of parent–child musical bonding that may already have taken place in prior years of a child's musical development, nor various parent–child relational tensions that might have arisen over that time as parents attempted to motivate their children to practice day after day, year after year (see McPherson and Davidson, 2002; McPherson, 2009). Future research on parent–child musical bonding may need to more fully investigate past practice habits rather than merely focusing on one point in time.

Second, because Suzuki parents are less likely to practice with their children as they get older – at the same time that children are maturing and developing more sophisticated social skills on their own – it is reasonable to presume that lower instances of parent–child practice sessions might actually correlate with higher reports of children's empathy. However, because we found no correlation (neither positive nor negative) between parent–child practice and parent reports of children's empathy in this study with a relatively large age range, questions remain as to how empathy and parent–child musical bonding might relate in earlier versus later years of a child's musical development. The possibility of a relationship between parent–child musical bonding and children's empathy might be explored with a larger sample to explore interrelationships between age, empathy, and time spent practicing together. Furthermore, because of the relative degree of subjective judgment on the part of parents (as described previously), studies of children within more restricted age ranges might provide opportunities for adolescents and children in higher age groups to provide their own empathy data. Although reliability and validity were considered satisfactory in the present study, future research with a narrower age range is also warranted given that the range of children in this study (1–17) was slightly larger than original tests of the GEM (4–16 years; see Dadds et al., 2008).

We found a significant effect among initial composite empathy ratings and persistence in group lessons over the course of 6 months: Students who would go on to continue in group lessons for the entire study duration had significantly higher initial empathy scores than those students who never took group lessons. These pre-existing differences in empathy scores are consistent with Corrigall and Schellenberg's (2015) observation that child personality predicts music training duration. We also acknowledge the possibility that the participants in this study already represented more enthusiastic parents who both elected to persist in Suzuki group lessons as well as participate in research about it. Given the Suzuki method's focus on character development (Suzuki, 1969/1983) enthusiastic parents who elect to enroll and persist in lessons might also be more susceptible to social desirability bias in their report of prosocial behaviors (Morsbach and Prinz, 2006), or might be more attuned to their children's behavior (Gerry et al., 2012) and empathic tendencies.

Additionally, these differences may point to the propensity for more empathetic students (and their parents who reported them as such) to show more commitment to learning in group settings. Given that children seek out environments in line with their own predispositions through so-called *niche picking* (Scarr and McCartney, 1983), it is possible that children with lower initial empathy scores were less likely to enroll or persist compared to more empathic children. Although these explanations are not necessarily surprising, they align with philosophies of musical connection and meaningfulness (Silverman, 2013; Hendricks, 2018) by demonstrating how engagement in shared music making with people who also value and practice social music-making can, in turn, lead to continued engagement in that activity.

Not only were group lesson participants' empathy scores higher to begin with (as previously discussed), but the mean empathy scores of children who persisted in group class also increased over the course of 6 months – although this second trend did not reach statistical significance. Conversely, the mean scores of children who did not enroll in group class showed a non-significant decreasing trend relative to their already lower starting point. These trends are consistent with previous research that has shown a link between cooperative music participation and empathy or prosocial behavior (Kirschner and Tomasello, 2010; Rabinowitch et al., 2013; Cirelli et al., 2014, 2016; Good and Russo, 2016; Beck and Rieser, 2020). However, the lack of statistical significance in the present study leaves questions as to whether or not these trends might relate to Suzuki group music lesson participation specifically. This possibility will need to be investigated using a larger sample with increased statistical power, and/or over a longer

duration, with more time for a potential effect (if there is one) to occur.

Implications for Research and Practice

Given the exploratory nature of this study, several recommendations for future research have already been addressed in tandem with preliminary findings, as described above. However, we note some additional recommendations for research and practice here. First, the demographic characteristics of the families who responded to the survey reflect a selection bias in our sample, which was very highly educated and relatively affluent. This is likely attributable, at least in part, to the fact that we surveyed only those families who had already enrolled in a highly time-demanding and costly music program. This finding is consistent with previous work demonstrating that children who take music lessons tend to be of higher SES than age-matched musically untrained peers (Schellenberg, 2006; Corrigall et al., 2013). Future studies should involve families of more diverse educational background and/or SES, in addition to other groups that are typically underrepresented and/or marginalized in Western classical music performance and education (see Smith and Hendricks, 2020, 2021). Furthermore, if future Suzuki research reveals economic and/or other demographic disparities among those who participate in Suzuki lessons in comparison to those who do not, such findings would have implications in terms of diversity, equity, and inclusion and reveal an imperative for Suzuki administrators and teachers to ensure that Suzuki instruction – immersed philosophically in principles of human flourishing (Hendricks, 2011) – might be accessible to any family regardless of their economic status.

Second, the music program we surveyed had over 100 students registered in the year our survey was distributed. Although our online survey response rate at Time 1 was remarkably high (approaching 50%), we still cannot know to what extent our results are generalizable beyond the respondents themselves. Further replications of this research are necessary to make empirical claims regarding the relationships between empathy, valuing of music, and commitment to group music lessons. In any case, our findings highlight the importance of providing a variety of music-learning structures to meet the personality, needs, and interests of children and their families. Although parents articulated the importance of group lessons, the disconnect between their stated value of the lessons, and their actual level of commitment to them, tell different stories. Whereas group lessons are considered highly important in the Suzuki approach (Guerriero et al., 2016), teachers may need to find alternative ways to reach and support families with children who are less socially inclined, or who may have other conflicts (see Hendricks, 2015; Menghini, 2020). Given the broad array of potential Suzuki group lesson approaches (e.g., day or time offered, frequency, staffing, location, ability or age groupings, and incentives for participation), qualitative, longitudinal, and/or mixed-method studies might provide more nuanced insight into particular reasons that children (and their parents) value and persist – or not – in these lessons. It may also be informative to know whether or not children or their siblings had participated in group lessons in the past (as part of this Suzuki program or any other group music lessons), to further elucidate their reasons for continued participation.

Third, as mentioned previously, participants in this exploratory study encompassed children with a very wide range of ages and musical instruments. This high variability, combined with the small sample of children who persisted in group training through the year, may have obscured any prosocial effects. We recommend follow-up studies with a larger sample size, and over a longer duration, to investigate the effects of group lesson participation with smaller age ranges. We did not analyze differences in parents' perceptions of empathy based on age with this small sample. However, given that previous research has revealed significantly higher empathy among musicians who began study earlier in life (Cho, 2019), it would be important for future research to more fully explore this phenomenon. Future studies should also include investigations of empathy, gender, ethnicity, and musical genres studied, given that differences have also been found among these covariates (Cho, 2019). Furthermore, because the precise structure of Suzuki group classes varies widely between programs (Mitchell et al., 2016b), future work may be able to draw comparisons among family music values and children's empathy based on class frequency (e.g., weekly, biweekly, and monthly) in addition to the other aforementioned factors.

Conclusion

"Which comes first, the empathy or the music? Or does it matter?" (Hendricks, 2018, p. 62). According to Silverman (2013), caring *for* others and caring *about* musical activities work together to create musical meaningfulness. As individuals make music together and come to experience caring about, for, and *with* one another, meaningful connections may continue to be forged between people and the activities in which they engage (Hendricks, 2021). One philosophy of musical eudaimonia suggests that "music learning can serve and epitomize human flourishing" (Smith and Silverman, 2020, p. 7). However, our findings might suggest that music learning, human connections, and shared values work together to reinforce musical meaningfulness, potentially creating a self-perpetuating eudaimonic circle. Therefore, we caution music educators against taking a uni-dimensional stance regarding music and prosocial behavior (such as using research about music and empathy to "prove" the importance of music), and instead advocate for a multi-dimensional view of the relationships between music-making, empathy, shared values, and eudaimonia. As Hendricks (2018) has suggested, music educators might "utilize music and music learning spaces as a means of encouraging connection, sensitivity, and kindness. That is what teachers *can* control, and that is what we do best. It may be that the connection between music and human goodness is more direct and less tangible than

scientists can measure, and certainly philosophers over the ages have suggested as much. Yet compassionate music teachers simply take it as truth and live the reality every day" (p. 62).

DATA AVAILABILITY STATEMENT

The analyzed datasets can be obtained by contacting the first author.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Boston University Institutional Review Board. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

AUTHOR CONTRIBUTIONS

All authors have contributed substantially to the research design, data collection, analysis, and interpretation of findings. Order of authorship reflects relative extent of contribution.

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