A Cross Cultural Look at Parenting Beliefs about Child-Rearing and Talk to Children with Autism Spectrum Disorders

by

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Abstract

This study is an extension of research by Johnston and Wong (2002), who used a survey instrument to explore the cultural differences in parents' beliefs about child-rearing and practices related to parent-child interaction in Chinese and Western mothers living in Canada. Their results showed differences between the two groups in the endorsement of certain child-rearing beliefs and practices. The present study explores differences in beliefs about child-rearing and talk to children in Chinese-Canadian and Euro-Canadian parents of children with autism spectrum disorders (ASD). Fifteen Euro-Canadians' and ten Chinese-Canadians' survey responses were analysed to examine patterns in responses. Stepwise regression procedures revealed significant differences in the two groups' child-rearing beliefs and practices. Findings suggest that professionals may need to consider the implications of these differences prior to offering language facilitation strategies to Chinese-Canadian families of children with ASD.

Preface

This thesis is an original work by Aisha Yorke. The research project, of which this thesis is a part, received ethics approval from the University of Alberta Research Ethics Board, "A Cross Cultural Look at Parenting Beliefs about Child-Rearing and Talk to Children with Autism Spectrum Disorders," No. 54214, March 11th, 2015.

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A Cross Cultural Look at Parenting Beliefs about Child-Rearing and Talk to Children with Autism Spectrum Disorders

The prevalence of autism spectrum disorder (ASD) is increasing (1 in 68), and its prevalence rate is considered consistent across all ethnic groups (Centers for Disease Control and Prevention, 2016). All children with ASD have challenges with social communication (Centers for Disease Control and Prevention, 2016) and delays in language development are common (Smith, Mirenda, & Zaidman-Zait, 2007). Given these issues, it is essential for early interventionists to engage parents in becoming effective language facilitators with their children. This task may be challenging for many early interventionists because their knowledge is limited regarding culturally diverse families (Gardiner & French, 2011) and, as a consequence, early intervention programs are often delivered based on European parenting standards (Puig, 2010) and limited cross cultural insights. It is only recently that child developmentalists have questioned this Western orientation to service provision (Johnston & Wong, 2002; Simmons & Johnston, 2007).

Canada is comprised of many different ethnic groups and is becoming increasingly diverse. It ranks second in the world for the highest immigrant population (Chuang & Su, 2009). The majority of the immigrants are Asians, especially those from the People's Republic of China, which was the top source country of immigrants in Canada between 2001 and 2006 (Statistics Canada, 2006). Within the Canadian context research is limited regarding Chinese parenting (Chuang & Su, 2009). Research conducted by Johnston and Wong in 2002 found cultural differences in the ways that Chinese and Western mothers of children with speech-language delays responded to statements related to child-rearing beliefs and practices related to talk. The aim of the present study is to extend and update research done by Johnston and Wong

(2002) related to parents' child-rearing beliefs and practices with a specific clinical population: children with ASD.

In order to frame this research the following literature review was undertaken; it includes an examination of patterns conducive to language development and reflection on how culture influences child-rearing and parent-child interaction. In addition, research on Chinese beliefs regarding child-rearing and practices talking to children are reviewed.

Child-Directed Talk Associated with Language Learning

"'Child Directed Talk' is the distinctive patterns of speech and discourse that are used by caretaking adults when interacting with young children" (Johnston & Wong, 2002, p. 916). Research suggests that children's language development is related to how parents interact with them. Basically, children's early language development is influenced by their language learning environment (Leffel & Suskind, 2013). Rowe (2013) took video recordings of 50 parent-child dyads in the Chicago area in their natural environment and found that when parents used more explanations and told stories about the past and future events their children had larger vocabularies. In addition, children had better language skills when their parents used decontextualized language, which included explanations of how and why things work, commenting on events, and communicating during pretend play. Also, Rowe (2008) found that infants' vocalization and adult child-directed speech, which is directing talk towards their children, were positively related. At 2 years, children who were in an environment with more child-directed speech were able to process language faster (Rowe, 2008). These patterns of interaction have also been examined in parent-child dyads with ASD. Perryman et al. (2013) studied parents and their 37 toddlers with symptoms of ASD (specifically social and communication deficit). The authors coded ten minutes of a parent-child play session and five

minutes of book sharing, and they found that the type of child-directed talk is also relevant for language development. More specifically, follow-in comments, which are comments made based on what the child is attending to, were positively associated with receptive language development. Thus, specific interaction with children with communication challenges such as ASD is associated with improved language development.

Cultural Differences Related to Child-Directed Talk

Parents interact with their children by encouraging and discouraging certain behaviours based on what is deemed appropriate by their culture (Bornstein, 2012). However, the advice that professionals—early interventionists included—give to families about how to interact with their children is mostly drawn from studies of people of European descent (Simmons & Johnston, 2007). Many professionals assume that attitudes and practices are universal (Ravindran & Myers, 2012), although research suggests that different cultural groups interact with their children in distinct ways. For example, Simmons and Johnston (2007) studied Indo-Canadian and Euro-Canadian mothers in the Vancouver area; they found that the two cultural groups reported interacting with their children in different ways. For instance, 84% of Euro-Canadian mothers reported following their child's lead in conversation whereas only 28% of Indo-Canadian mothers did. In terms of learning about family expectations, twice the number of Indo-Canadian mothers agreed that this was important as compared to Euro-Canadian mothers (Simmons & Johnston, 2007). Also, Euro-Canadian mothers were more likely than Indo-Canadian mothers to engage in bedtime routines, such as reading a book to their child (76% versus 28%). Alternatively, Indo-Canadian mothers were more likely to recite religious songs with their children than Euro-Canadian mothers (68% versus 4%). In general, Indo-Canadian mothers

endorsed more survey statements that indicated that children learn language in direct and explicit ways than Euro-Canadian mothers.

In an earlier study, Johnston and Wong (2002) found that Chinese mothers and Western mothers in Canada had different approaches to interacting with their children. For example, Chinese mothers were more likely than the Western mothers to agree with survey items, such as, "using words is better than gestures" and "instructing children is the best way to teach them." This suggests that Chinese mothers may be more directive in their teaching approach. Unlike Western mothers, Chinese mothers tended to disagree that parents using baby talk will be a hindrance to children developing language and that children should engage in conversations with nonrelatives. Chinese mothers were also more likely to disagree that children learn valuable things through play. This means that Chinese parents may be hesitant to encourage talk during play. Unlike Chinese mothers, Western mothers engaged their children in activities such as often reading to them, speaking to their children about events not shared, and elaborated on their child's utterances. Other researchers (Robinson, Tyler, Silburn, & Zubrick, 2012) designed a parent-child interactive intervention in order to promote social skills. They observed that non-Aboriginal urban parents and Aboriginal parents in Australia engaged their children in different ways. Specifically, non-Aboriginal parents had a more direct instructional approach, made eye contact, and conversed with their children about their behaviours. On the other hand, Aboriginal parents did not frequently interact with their children, instead their children engaged with other children. In addition, different cultures differ on the importance they place on the methods they use to interact with their children (Norbury & Spark, 2013). For example, one study has shown that four different cultural groups (Afro-Caribbeans, South Asians, British, and Somalis) valued different avenues of communication (Prethvi, 2014). For instance, Somalis had a higher

preference for using eye contact and gestures than the other three cultural groups (Prethvi, 2014). Also, through observing parent-child dyads and examining questionnaires and interviews, Pérez (2000) found that Mexican mothers in Texas with 2 to 3 year old children with a developmental disability helped their children learn language by listening to them, interacting with them, naming objects and setting up opportunities for them to interact with others.

This review of the research demonstrates that there are differences in parent-child communication behaviours, and it is likely that the communication preferences are based on parents' differences in beliefs across culture about how children learn language.

Chinese Child-Rearing Beliefs and Practices

Writers who have examined Chinese beliefs about child development assert that, in general, there is a cultural belief that children are raised to be obedient and parents are held responsible for teaching children (Chen et al., 1998). In China, it is the mother's responsibility to raise the children well (Tie & Huang, 2010). Also, children are trained to regulate their emotions, and withhold thoughts and feelings (Rao, McHale, & Pearson, 2003). Chinese parents have high expectations for their children to meet their standards, and failure to meet standards leads to strict responses, such as shaming. Children are shamed as motivation to act appropriately (Lieber, Fung, & Leung, 2006). Parental control and directiveness are highly valued in Chinese culture, and most Chinese favour an authoritarian parenting style (Chen et al., 1998).

High parental control is rooted in Chinese socialization and is stemmed from care and love (Gorman, 1998). For instance, the Chinese parental belief *guan* is related to authoritarian parenting (Bowes & Wyver, 2009). "The word 'guan' means govern in English, but in Chinese language it implies govern, care and love….'Guan' makes Chinese parents not simply control but pass on to children their love and care" (Guo, 2006, p. 9). *Guan* is associated with the

concept of "training" which encompasses being involved as a means of promoting success and being concerned and caring (Chao, 1994). Training is further discussed in the following study.

Lieber et al. (2006) explained four specific child-rearing beliefs (training, shame, autonomy, and authoritative) that are important to Chinese parents based on an exploratory factor analysis of 441 responses to the *Chinese Child Rearing Beliefs Questionnaire* (CCRBQ). These parents were from community preschools in Hong Kong and Taiwan. They reported training their children by demonstrating and monitoring behaviours and utilizing other social learning approaches. Training ensures that children act in socially appropriate ways. Training beliefs are related to authoritarian parenting in the West. Liu and Guo (2010) also found that Chinese mothers have a more authoritarian approach to raising their children than Canadian mothers. They studied 40 Caucasian Canadian children from Ontario and 39 Chinese children from northeast China through observation of mother-child dyads in two fifteen-minute free play sessions. In this study, Chinese mothers displayed more behaviours that were coded as "high power strategies" than Canadians. "High power strategies" included asking the child to behave a certain way, disrupting the child's activities, criticizing or showing disapproval using negative comments, prohibiting the child from engaging in activities, and using threats toward the child. In addition, Chao (1994) also found that 50 immigrant Chinese mothers in Los Angeles endorsed items of parental control, such as having strict rules for their child and authoritarian items, more than 50 European-American mothers. However, Chinese mothers reported more involvement related to helping their child to be successful. While authoritarian parenting predicts low school achievement in European-Americans, it has no such consequence for Chinese (Chao, 1994). Thus, there are different implications for the same behaviour in different cultural contexts.

Another example to illustrate the implications of cultural difference is reported in a study by Chen et al. (1998). They studied 150 Chinese toddlers and their mothers from the People's Republic of China and 108 Canadians from Ontario through observation in a university laboratory and analysis of their response patterns on the Child-Rearing Practice Report (CRPR). The researchers noted during the free-play session that Chinese toddlers stayed more physically closer to their mothers and were more hesitant to physically contact a stranger or robot than Canadian toddlers. Chinese toddlers' inhibition was associated with positive child-rearing variables whereas it was the opposite for the Canadian toddlers. For example, the inhibition of Chinese toddlers was positively related to child-rearing variables such as encouragement of achievement and acceptance from their mother, but a negative relation was found for the Canadian toddlers with the same variables. Also, mother's orientation to punishment was negatively correlated with inhibition for the Chinese toddlers and positively correlated for the Canadian toddlers.

It is also important to note that there are even parenting differences within the same cultural group based on region. For example, Lai, Zhang, and Wang (2000) analysed a CRPR of 89 mothers from Beijing and 45 mothers from Hong Kong that showed that Chinese mothers in Beijing and Hong Kong socialized with their children in different ways. Mothers in Hong Kong controlled their children more, were more overprotective, showed more negative emotions towards their children and worried more about their children than mothers in Beijing. Overall, the parenting practices of mothers in Hong Kong were more restrictive than mothers in Beijing. However, in both Hong Kong and Beijing the parenting style was restrictive. The authors concluded that mothers in Hong Kong appeared to adopt the traditional style of parenting in China, which means having strict guidelines for children to follow, limiting their children's

privacy, and insisting that children follow parents' decision; whereas, mothers in Beijing encouraged children to think for themselves, and had higher expectations for their child in terms of doing better than others. It is important to note that these concepts are general and may not reflect individual Chinese parenting beliefs, so the differences are reflective of Chinese people as a whole.

Asian Parenting Practices with Children with ASD

Few studies have examined the parenting beliefs and practices of Asian parents with children with ASD. One exception, Gau et al. (2010) found that Asian mothers exert even more control with children with autism. These researchers studied 151 Taiwanese families who had one child with autism between ages of 3 and 12, and 113 in a control group in order to investigate Asian parenting styles with children with autism and their siblings. Based on parental reports, it was found that children with autism were more overprotected than the children in the control group and siblings of children with autism. In general, more authoritarian parental control was applied to children with autism. It is unknown whether these differences in child-rearing practices occur among Chinese-Canadians of children with autism.

Johnston and Wong (2002) found differences in parenting beliefs and practices in Chinese and Western parents with children with speech-language delays. However, this study is over ten years old and may not represent current beliefs. In addition, there is no known research on the differences in parenting beliefs and practices between Chinese-Canadian and Euro-Canadian parents of children with ASD. Therefore, in order to expand our current understanding of Chinese parenting beliefs and practices regarding children with ASD the following research question will be addressed in this study: Are there differences in beliefs about child-rearing and

how to talk to children between Chinese-Canadian and Euro-Canadian parents of children with ASD?

It is hypothesized that some Chinese-Canadians and Euro-Canadians will have significantly different endorsement of child-rearing belief items related to how children learn language, importance of speech and being directive/fostering independence. Also, it is predicted that Chinese-Canadians and Euro-Canadians will report different practices in the way they talk to their children with ASD, such as, their use of repetition, correction, elaboration, directives and personal narratives.

Methods

Measures

Child-rearing beliefs and practices survey. The survey instrument was designed by Johnston and Wong (2002), based on consultation with professionals with a background in social work and child-language and speech patterns from Chinese and Western cultures. The questions address parental beliefs and practices related to language learning, aspects of independence and dependence in language learning, ways to talk to children, and the position and value of children in the family.

The survey consists of two sets of questions. The first set of questions is related to child-rearing beliefs (CRB). More specifically, how children learn language, beliefs about early development, family structure, being directive/fostering independence. Participants were asked to respond to these questions by using a 1-5 response scale ranging from "Strongly Disagree" to "Strongly Agree." Some of the items are as follows: "Young children learn best when they are given instructions;" "The proper titles for people ("Aunt" Sally) are more important to learn than the names of objects;" and "Parents should wait until young children ask before giving help."

The second set of questions are related to practices parents use when talking to their children (PTC); for example, use of repetition, gestures and pictures, following the child's lead or being directive. A 1-4 response scale ranging from "Hardly Ever" to "Almost Always" was used for these survey questions. Some of the items are as follows: "Ask my child to repeat a sentence after me;" "Use picture books or flash cards to teach my child new words;" and "Follow along with my child's topic of conversation."

Demographics. The participants responded to demographic questions related to their educational level, native language, child's language, languages spoken in their home, importance of being bilingual, place of birth and years resided in Canada. In addition, they were asked about their parent's place of birth, ethnicity, occupation, age, and number of children. These questions were included in order to compare and contrasts the participants from the two groups, and determine their comparability. For instance, their parent's place of birth and ethnicity were asked in order to further distinguish the two groups based on culture. While occupation, age and number of children were asked as these factors may contribute to parenting practices. The participants were also asked to identify their relationship to their child (i.e., mother, father, and grandparent), respond to questions of their child's diagnosis, and severity of disability, gender, age, preschool/daycare hours, and enrolment in an intervention program and reception of specialized services. These questions were asked to ensure that the children were eligible for the study and to compare the children in the two groups.

Survey response questions. Further questions were asked to enhance the validity of the results. For instance, Aust, Diedenhofen, Ullrich, and Musch (2013) examined 3,490 Germans' responses to their online survey about their political attitudes a week before the 2009 election, and they inserted a seriousness check question. Specifically, they asked participants to make a

choice between two responses: “I have taken part seriously” or “I have just clicked through, please throw away my data” (Aust et al., 2013, p. 530). They found that participants, who reported answering the questions seriously, provided more valid and consistent responses than participants who reported not being serious. Therefore, a similar procedure was followed for this study; in order to enhance the validity of this data, participants were asked: “How much thought did you put into answering the previous questions?” The response set for this question was: none, some, more than some, and a lot.

They were also asked: “If you have read this question, select “strongly agree” as a response. This instructional manipulation check (IMC) was employed as another way to enhance the validity of the data. Oppenheimer, Meyvis, and Davidenko (2009) explained in their study how IMC increased the reliability and statistical power of their data. They gave their 213 participants from New York University randomly one of two scenarios replicated from literature on decision making. When participants who failed the IMC were included in the analysis, the response was non-significant and inconsistent with previous literature. However, when these 46% of participants were excluded, the results were reliable and consistent with the literature. These participants also had less reliable responses based on the analysis of their response on positive and reverse coded items.

Finally, the postal code and email were requested to check for consistency in responding. For example, a person stating they are from Edmonton was expected to have a postal code that coincides with an Edmonton address.

Procedure

A recruitment email was sent to executive directors of organizations around Canada that serve parents of children with ASD. The email included a recruitment poster and an information

sheet about the study. The information and link to the survey were posted via google forms on these organizations' website and/or Facebook page for interested participants to access the survey. The researchers also met with a local Chinese parenting group, and explained the study and invited them to participate by administering a paper copy of the online version. Also, an email was sent to the local Chinese group coordinator with a link to the study in English and a separate link in Chinese to distribute to interested participants.

The survey took participants approximately 10-20 minutes to complete. At the beginning of the survey, informed consent was asked and participants were informed that they can withdraw at any time. If after reviewing the consent form participants clicked "No" to "do you want to participate in this study?" They were sent to the submit survey page, and they did not see the items in the survey.

There were two language versions of the survey: English and Chinese. The English version was translated into Chinese by a local Chinese person whose first language is Chinese, and back translated into English by another local Chinese person whose native language is Chinese. Then the researchers consulted with the two Chinese translators to discuss the back translated version and the meaning intended to be conveyed. After the discussion, one of the translators edited the Chinese survey in order to preserve the meaning and make it equivalent to the English version. Also, culturally relevant examples were utilized in the Chinese version. For example, one question in the survey asks: if parents use "baby talk" like jammies for pajamas; in the Chinese version, the example pajamas was changed into meal. The Chinese version was also checked for culturally appropriate language, and sentences were changed to make it more polite where the literal translation may have been interpreted as impolite. However, caution was taken in this process as to not change the meaning conveyed. Once the survey was edited by the

researchers in consultation with the Chinese translators, the English and Chinese version of the survey was pilot tested by a few English and Chinese speakers who provided feedback on the length of time taken to answer the questions and cultural sensitivity of the questions. Then, the survey was sent out to potential participants after edits based on the pseudo-participants' feedback. Participants were purposively sampled from organizations (e.g. Centre for Autism, GRIT program, Children's Autism Services Edmonton) who provide services for children with autism.

Results

Participants

The total number of individuals who completed the survey was 52. However, 27 participants were excluded because they did not meet the eligibility criteria (Chinese-Canadian/Euro-Canadian mothers with children with ASD 10 years and under who are enrolled or have been enrolled in early intervention). For instance, 5 individuals did not self-identify as belonging to either of the cultural groups targeted; 14 of the participants' children did not qualify for early intervention (children 11 years or older); 3 children did not have ASD; 1 Chinese non-English speaker did the English version of the survey; 1 participant was a father, and 3 participants failed the seriousness check and instructional manipulation check, and as a result, these group of participants were excluded.

The total number of participants used for analysis was 25. The sample comprised of 15 Euro-Canadians and 10 Chinese-Canadians with children with ASD. Euro-Canadians were operationalized as people who were born in Canada or self-identify as Canadians and spoke English or French as their first language; and Chinese-Canadians were Canadian immigrants who spoke Chinese as their first language. Language was confirmed as a distinguishing variable between the two cultural groups through a chi-square analysis that revealed that the mother's

first language, home language, and child's language were all significantly different between the two groups. For example, English and French were reported as Euro-Canadians first language and Chinese was reported as Chinese-Canadians first language. The first language $X^2(2) = .00$, $p < .05$ and home language $X^2(3) = .00$, $p < .05$ were significantly different between the two groups. The length of time the participants lived in Canada was also significantly different between the two groups, $X^2(2) = .01$, $p < .05$.

In terms of age, 66.7% of Euro-Canadians were 31-40 years while 40% of Chinese-Canadians were in this age range, and more Chinese-Canadians (60%) were 41-50 than Euro-Canadians (26.7%). There were no significant differences between the two groups in regard to age $X^2(2) = .21$, $p > .05$, and educational level $X^2(4) = .27$, $p > .05$. Most of the participants have one (Euro-Canadian 20%; Chinese-Canadian 40%) or two children (Euro-Canadian 46.7%; Chinese-Canadian 50%).

The mean age of the participants' children with autism was M=6.33 SD=1.80 for the Euro-Canadians and M=6.80 SD=1.32 for the Chinese-Canadians. Most of the participants' children were male (Euro-Canadians 93.3%; Chinese-Canadian 70%). There were no significant differences for the two groups in terms of gender $X^2(1) = .12$, $p > .05$. The participants reported that their children had autism alone or autism with other disorders. For instance, 26.7% of Euro-Canadians reported that their child had autism alone while 60% of Chinese-Canadians did. In terms of comorbidity, 73.53% of Euro-Canadians and 30% of Chinese-Canadians reported that their children had autism and speech delays or autism and other developmental disorders. There were no significant differences between the two groups in regard to the type of disorders $X^2(3) = .16$, $p > .05$; and the severity of the disorders $X^2(2) = .06$, $p > .05$. The parent's perception of their children's severity of disorder was mild (Euro-Canadians 6.7%; Chinese-Canadians 30%)

moderate (Euro-Canadians 53.3%; Chinese-Canadians 10%), or severe (Euro-Canadians 40%; Chinese-Canadians 60%). Chinese-Canadians reported a larger number of children in early intervention programs (70%) than Euro-Canadians (40%), but a similar number of Euro-Canadians (66.7%) and Chinese-Canadians (60%) reported that their children were receiving specialized services. In terms of preschool, 86.7% of Euro-Canadians and 50% of Chinese-Canadians were currently attending preschool while 6.7% of Euro-Canadian and 40% of Chinese-Canadians were not attending preschool. On average, the Euro-Canadians reported that their children attend preschool for M=16.25 hours per week and M=22.14 for the Chinese-Canadians. For more details of all the demographic data, see Table 1.

Cultural Differences in Survey Responses

For the initial analysis, a nonparametric chi-square procedure was used to identify discrepancies between the two ethnic groups on the individual 32 items. The percentages of agreement or disagreement on the items related to parenting beliefs are shown in Table 2. The percentages reflect mothers who reported that they "strongly agree" and "agree" on the 20 items except for 2 reverse coded items where "strongly disagree" and "disagree" were used. Out of the 20 beliefs items, three items were found to be statistically different for the two groups at an alpha level of .05. These items are regarding the importance of speech (item 4), learning proper titles versus names of objects (item 7), and waiting for children to ask for help before offering (item 8).

The remaining 12 items were related to talking to children, and the frequencies are shown in Table 3. The percentages reflect mothers who "almost always" or "very often" engage in a specific practice or "hardly ever" or "sometimes" in one case. The chi-square procedure revealed that two of the 12 items were found to be statistically different between the groups at an alpha

level of .05. The items were about following the child's lead in conversation (item 4) and asking the child to talk to a family member about a shared event (item 12)

A further multivariate analysis (stepwise regression) was completed to determine the reliability of the above findings. The first step was to enter the belief item 4 as a predictor variable, then the next step was to enter item 7 as another predictor variable, and the final step was to enter item 8 as these three items showed different patterns of responding between the two groups; and ethnicity was entered as the dependent variable. Two items (4, 7) out of the three items were predictive of group membership. An examination of the results showed that Chinese-Canadian mothers tended to agree strongly that "Speech is especially important because it helps young children to make friends" (item 4). This item accounted for 13%, $F(1, 23)=4.60$, $p<.05$ of the variance. Also, Chinese-Canadian mothers tended to agree strongly that "The proper titles for people ("Aunt Sally") are more important to learn than the names of objects" (item 7). This item accounted for a greater proportion 40%, $F(1, 22)=11.17$, $p<.05$ of the variance than the previous item. Due to the small sample size, adjusted R square is reported in Table 3.

In terms of the items related to parent-child interaction practices, a stepwise regression was also used. First, the items related to talk (4, 12) that showed a significantly different pattern of group responses were entered individually as predictor variables, and ethnicity was entered as the dependent variable. Both items were predictive of group membership. An investigation of the results showed that Euro-Canadians were more likely than Chinese-Canadians to report that they follow along with their child's conversational topic (item 4) and ask their child to share stories about what they did with other family members (item 12). Item 4 accounted for 17%, $F(1, 23)=5.914$, $p<.05$ of the variance, and item 12 accounted for a greater portion 37%, $F(1, 22)=8.100$, $p<.05$ of the variance. Similar to before, the adjusted R is reported in Table 4.

Discussion

This study explored parents' endorsements of child-rearing beliefs and practices between Chinese-Canadian and Euro-Canadian mothers with children with ASD. These mothers filled out an online survey via google forms which they accessed through different autism organizations' websites, a recruitment email, and/or Facebook pages. An analysis of their responses showed differences in the way Chinese-Canadian and Euro-Canadian mothers of children with autism responded to the survey items about child-rearing beliefs and practices related to talk. The multivariate analyses (stepwise regressions) revealed significant group differences on four of the survey items. In contrast, Johnston and Wong (2002) found group differences in the way Chinese and Western mothers with children with speech-language delays responded on 14 of the 32 survey items.

Cultural Differences in Beliefs and Talk

The significant differences on the child-rearing belief items were related to the importance of speech and family structure. Chinese-Canadian mothers of children with ASD were more likely than Euro-Canadian mothers to report that speech is important for making friends and using proper titles for people were more important than names of objects. These responses may be reflective of Chinese cultural values. For instance, one of the main child-rearing goals in Chinese culture is respecting and obeying senior family members (Chao, 1995 as cited in Bowes & Wyver, 2009). Thus, it is not surprising that using the correct title for people is highly important. Other research by Bowes and Wyver (2009) corroborates this finding. They analysed 189 survey reports of Hong Kong residents in order to explain the relationship between parental beliefs, goals and parenting style. They found that parental beliefs predicted parental goals that in turn predicted parenting style. Since culture influences families' beliefs an

expectations (Bradshaw, 2013), early interventionists need to be cognizant of the cultural differences in beliefs in parenting children with autism within Chinese culture, especially the differences shown in this project.

The other significant differences on the practices related to talk items are regarding following the child's lead and personal narratives. Chinese-Canadian mothers were less likely to report following the child's lead (70% versus 100%) and asking their child with autism to narrate personal experiences to family members than Euro-Canadians (50% versus 100%). These findings are consistent with the results shown in the study completed by Johnston and Wong (2002). Johnston and Wong (2002) found that only 7% of Chinese reported following their child's lead versus 55% of Western mothers. Also, they found that 21% of Chinese mothers asked for personal narratives whereas 73% of Western mothers did. Johnston and Wong (2002) suggested that different expectations regarding conversation stems from Chinese cultural goals, such as fostering interdependence instead of independence and few expectations for young children (Chao, 1994). Typically, Chinese parents indulge young children because they think that they are unable to understand (Tie & Huang, 2010). Thus they may not see the value in encouraging their young child with autism to talk.

Using the same survey, Johnston and Wong (2002) also found several other differences related to how Chinese and Western parents reported talking to their children. For example, only 29% of Chinese mothers reported reading bedtime stories to their child while 84% of Western mothers engaged in this practice. In contrast, the participants in the present study responded in a similar fashion for reading bedtime stories (90% Chinese-Canadian; 86.7% Euro-Canadian). They also responded similarly to the item regarding the use of pictures to teach words to their children with autism (77.8% Chinese-Canadian; 80% Euro-Canadian). However, the responses

of participants who Johnston and Wong (2002) studied were significantly different for bedtime stories (29% Chinese; 84% Western) and the use of pictures (64% Chinese; Western 46%). Some other items that participants studied by Johnston and Wong responded significantly different to were: children learning through play (item 14), allowing children to take turns in conversation with adults who are not family members (item 19) and grandparents give good advice about children (item 20). In contrast, participants in the present study responded similarly on all these items.

It is likely that the Chinese-Canadian participant responses in the present study were more similar to Euro-Canadian participant responses because of acculturation. Acculturation is a process where a person adopts the characteristics of the migrant culture and loses the characteristics of their traditional culture (Ho, 2014). There are research studies that suggest that parenting beliefs and practices change after immigration (Costigan & Su, 2008), and acculturation influences parenting style (Huang & Lamb, 2015; Chuang 2006). Haung and Lamb (2015) found that although Chinese immigrants with 5-7 year old children in the United Kingdom had a strong affiliation to Chinese culture, they changed some of their parenting practices. Specifically, in a questionnaire they reported less authoritarian practices the longer they lived in the United Kingdom. The time the participants lived in the United Kingdom ranged from 9 months to 27 years with an average of M=9.72 SD=5.88. Also the more the Chinese parents identified with the United Kingdom culture, they were more authoritative and less directive with their children. The Chinese-Canadian participants in the current study lived in Canada longer (40% of the participants reported living in Canada 10 years and 40% more than 10 years) than the Chinese participants (average 8 years) studied by Johnston and Wong (2002). Thus, the participants in the present study may have been more acculturated.

The characteristics of the participants may have also contributed to a different pattern of findings between the present study and the study completed by Johnston and Wong (2002). Johnston and Wong (2002) recruited participants through a Health District staff member who sent mails to random mothers or mothers who contacted a speech clinic to ask about their services, and social workers also distributed forms, so it is unclear whether any of their participants had children with ASD. The participants in the present study all had children with autism or suspected autism that had experienced early intervention. Parents of children with ASD may be more inclined to change their parenting practices to adapt to the child's needs because of the knowledge gained from early interventionists. The survey responses may be a reflection of this change. It is also likely that Chinese-Canadians change their parenting practices in order to cope with the parenting demands of having a child with ASD. Costigan and Koryzma (2011) found that feelings of parenting efficacy was strong in Chinese families who oriented to Canadian culture because they felt confident having the skills and knowledge to parent in a new context.

Clinical Implications

It is recommended that early interventionists read about Chinese culture and incorporate it in their interventions with children with ASD. All centers that serve children with ASD should coach professionals to be culturally sensitive. Currently, research suggests that professionals often lack training to work with diverse individuals, and their understanding of different cultures is limited because they are trained from a Western perspective (Welterlin & LaRue, 2007). Thus, they approach clients based on Western ideas. Norbury and Spark (2013) provided an example of the mistake of approaching clients from a Western perspective in their own clinical practice; they explained how some families thought that assessment with dolls were strange because of their

lack of experience with toys at home. They also noted that some families refused treatments because of their cultural and religious beliefs. It is important to note that culture influences receptiveness to treatment that includes seeking help and type of treatment to use (Ravindran & Myers, 2012).

Many professionals are unaware of how they can meet the needs of diverse families and are also unaware of the reasons why certain cultural groups are less inclined to accept their help (Theara, & Abbott, 2015). They assume that attitudes and practices are universal (Ravindran & Myers, 2012). Gardiner and French (2011) revealed that many professionals have challenges with being culturally sensitive. The researchers interviewed two groups of participants who were executive directors of early intervention programs and interventionists in Nova Scotia. The participants claimed that working with diverse families was a challenge for them because of their lack of knowledge related to families' differences and expectations. Some of the specific challenges were related to how parents perceive disability and limited cultural resources. Inexplicably, out of four centers that were aware of supports for diverse families, only one center utilized it. Thus, it is also recommended that early intervention programs advertise supports for diverse families via flyers, information packages, and/or presentations.

When culture is not considered in the design of early intervention programs, parents' ability to meet their children's needs in regards to optimal development is compromised (Puig, 2010). Hebert and Koulouglioti (2013) suggest that when parents and professionals views differ, parents may not implement the interventions with fidelity. Therefore, it is necessary to understand and incorporate families' cultures in order to be responsive when serving them (Puig, 2012).

Limitations and Future Directions

One of the limitations of this study is that the sample size was small. As a result, this study may not be generalizable. Another limitation that may impact this study generalizability is the participant pool. It is unclear whether most of the participants are from one organization or one area because this is an online study. Thus, participants should have been asked where they found the survey and where they are living now. Additionally participants were not asked about their income. However, education level can be used to assume income, and education level was not significantly different between the two groups.

Although the survey revealed some differences, there were many similarities between the two groups. It is unclear if similar responding is due to acculturation. Future studies should examine if endorsement of the survey items differ among new immigrants and immigrants who have been in Canada for a longer duration. Currently, there are mixed results related to acculturation or years resided in a host country. For instance, there is research that suggests being immersed in a different culture for a length of time changes parenting practices (Huang and Lamb, 2015). While there is research that shows no relationship between parenting practices and years of residency in a country (Chuang & Su, 2009; Hulei, Zevenbergen, & Jacobs, 2006).

Conclusion

This research revealed that there are fewer differences in child-rearing beliefs and parent-child interaction practices between Chinese-Canadian and Euro-Canadian mothers than there were between Chinese and Western mothers studied by Johnston and Wong (2002). As mentioned earlier, these differences may be due to acculturation. Nevertheless, while Chinese-Canadian parents are negotiating between their native culture and Canadian culture, it is important to be supportive, consider their perspectives and be sensitive to their native culture

when developing programs to improve children with ASD's language and overall development. This is because cultural sensitivity is important for successful early intervention because it affects parents' behaviours such as seeking help and cooperating with professionals (Diken, 2006) and implementing the interventions with fidelity (Hebert & Koulouglioti, 2013). Early interventionists may want to bridge the gap by using this project as a resource to inform their intervention plans by looking at the differences reported in Chinese-Canadian parenting practices of children with ASD.

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Table 1

Frequencies for demographic data

Variables	Euro-Canadian	Chinese-Canadian
Child's Disability		
Autism Alone	26.7%	60%
Suspected Autism	0%	10%
Autism & Speech Delay	53.3%	20%
Autism + other disorders	20%	10%
Severity of Disability		
Mild	6.7%	30%
Moderate	53.5%	10%
Severe	40%	60%
Recipient-Early Intervention		
Currently Receiving Early Intervention	40%	70%
Received Early Intervention In The Past	60%	30%
Recipient-Specialized Service		
Currently Receiving Services	66.7%	60%
Received Services In The Past	33.5%	40%
Attended Preschool		
No	6.7%	40%
Yes	86.7%	50%
Does Not Apply	6.7%	10%
Gender of Child		
Male	93.3%	70%
Female	6.7%	30%
Number of Children		
One	20%	40%
Two	46.7%	50%
Three	6.7%	0%
Four	6.7%	10%
More Than Four	20%	0%
Education Level		
Less Than High School	13.3%	10%
High School Diploma	0%	10%
College	26.7%	0%
Bachelor Degree	26.7%	50%
Graduate Degree	33.3%	30%
***Years in Canada**		
Five Years	6.7%	20%
Ten Years	0%	40%
More Than Ten Years	93.3%	40%

*p<.05; **p<.01; *** p<.001

Variables	Euro-Canadian	Chinese-Canadian
***Mother's First Language		
English	93.3%	0%
French	6.7%	0%
Chinese	0%	100%
***Home Language		
English	100%	10%
Chinese	0%	60%
French	0%	10%
English & Chinese	0%	20%
*Child's First Language		
English	100%	40%
English & French	0%	30%
English & Chinese	0%	10%
Chinese	0%	10%
None	0%	10%
Mother's Age		
20-30 years	6.7%	0%
31-40 years	66.7%	40%
41-50 years	26.7%	60%

*p<.05; **p<.01; ***p<.001

Table 2

Percentages of Euro-Canadian and Chinese-Canadians frequencies for child-rearing beliefs

CHILD-REARING BELIEFS		
Questions	**Euro-Canadian**	**Chinese-Canadian**
1. Children who spend time quietly observing tend to be smart	40	60
2. It is important to find out what young children are thinking	66.7	100
3. Parents should ask young children to repeat new words in order to help them learn to talk	80	80
4. Speech is especially important because it helps young children to make friends	66.7	100*
5. Children understand some words even before they can speak	100	90
6. Parents should let children experiment, even if they might make mistakes	100	90
7.The proper titles for people ("Aunt Sally") are more important to learn than the names of objects	6.7	60**
8. Parents should wait until young children ask before giving help	33.3	90*

*p<.05; **p<.01; ***p<.001

Questions	Euro-Canadian	Chinese-Canadian
+9. It is more important for young children to speak clearly than to speak politely	53.3	20
10. If parents use "baby talk" (like "wawa" for water, or "jamies" for pajamas) their child won't learn to speak well	40	80
11. Three-year-olds are too young to help with household chores	13.3	20
12.Young children learn best when they are given instructions	53.3	70
13. Young children should always be encouraged to communicate with words rather than gestures	60	90
14. Young children learn important things while playing	100	100
15. When babies babble, they are trying to communicate something	73.3	80
16. Young children should be given choices instead of being told what to do	73.3	80
17. Children will learn to talk on their own as long as they are spoken to	40	60

+percentage is based on "disagree" and "strongly disagree"
*p<.05; **p<.01; ***p<.001

Questions	Euro-Canadian	Chinese-Canadian
+18. Young children generally like the same things as their parents	46.7	33.3
19. Young children should be allowed to take a turn in conversations that include adults who are not family members	93.3	88.9
20. Grandparents or older family members give good advice about the way that young children grow up	40	33.3

+percentage is based on "disagree" and "strongly disagree"
*p<.05; **p<.01; ***p<.001

Table 3

Percentages of Euro-Canadian and Chinese-Canadians frequencies for talking to children

TALKING TO YOUNG CHILDREN		
Questions	**Euro-Canadian**	**Chinese-Canadian**
1. Tell my child if s/he uses the wrong word	53.3	70
2. Read a book to my child at bedtime or naptime	86.7	90
3. Ignore the fact that I do not understand something my child says	20	30
4. Follow along with my child's topic of conversation	100	70**
5. Repeat what my child says, adding new words	93.3	70
6. Talk about what is going on when my child and I are playing or doing things together. Example: When playing tea party, "Now, I'm pouring my tea. You're eating a tea cake. Is it good?	93.3	70
+7. Tell my child if s/he leaves some words out of a sentence	40	50
8. Change my words or sentence when my child does not understand me	100	80

+percentage is based on "disagree" and "strongly disagree"
*p<.05; **p<.01; ***p<.001

Questions	Euro-Canadian	Chinese-Canadian
9. Talk with my child about what happened that day when I wasn't there. Example: at preschool, or at home while I was at work	93.3	75
10. Use picture books or flash cards to teach my child new words	80	77.8
11. Ask my child to repeat a sentence after me	86.7	60
12. Ask my child to tell another family member about something that we did together	100	50***

*p<.05; **p<.01; ***p<.001

Table 4

Sequential regression analysis for belief items

Step	Item	R	R2	Change in R2	F
1	4	.41	.17	.17	4.600*
2	7	.67	.45	.28	11.175**
3	8	.67	.45	.00	.020

*p<.05; **p<.01; ***p<.001

Table 5

Sequential regression analysis for talk items

Step	Item	R	R2	Change in R2	F
1	4	.45	.21	.21	5.914*
2	12	.65	.42	.21	8.100**

*p<.05; **p<.01; ***p<.001