Cultural Variations in Mothers’ Acceptance of and Intent to Use Behavioral Child Management Techniques.

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AUTHOR PREPUBLICATION DRAFT

Author Note

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Abstract

This study examined cultural differences in mothers’ acceptance of common behavioral parenting techniques for managing disruptive child behavior, and the possible mediating roles of parenting styles and implicit theories. A community sample of 117 Euro-Canadian and Chinese-immigrant mothers of boys aged 4- to 8-years participated. Chinese-immigrant mothers had more favorable attitudes towards punishment techniques (i.e., overcorrection and spanking) than Euro-Canadian mothers, and mothers’ authoritarian parenting style was a mediator underlying this cultural difference. No cultural differences were found in mothers’ attitudes towards reward (i.e., praise and token economy) or withdrawal of positive reinforcement (i.e., response cost and time-out). This study helps to inform efforts to increase the cultural sensitivity of mental health services for the underserved population of Chinese-immigrant families.

Keywords: parent training, acceptability, culture
Cultural Variations in Mothers’ Acceptance of Behavioral Child Management Techniques: Examination of Underlying Mechanisms

Cultural sensitivity has been emphasized in mental health service (Whaley & Davis, 2007) and, although current guidelines (e.g., American Psychological Association, 1993) offer suggestions for providing culturally sensitive services in general, information regarding the cultural appropriateness of specific interventions such as parenting practices for managing problem child behavior are lacking (Forehand & Kotchick, 1996). This is an area of need because, even though the prevalence of child disruptive behavior is similar across ethnicities (Bird et al., 2001), ethnic minority families, including Asian-North Americans, are underserved in the mental health sector (Chen, Sullivan, Lu, & Shibusawa, 2003). Specifically, Asian-North American children and families are under-referred (Yeh et al., 2002), and show less therapeutic involvement in mental health services in comparison to nonminority families (Yeh, McCabe, Hough, Dupuis, & Hazen, 2003). This under-servicing of Asian North-American families, as well as the encompassing impact of culture on parenting and child development (Yasui & Dishion, 2007), motivated this study of how cultural factors may influence the uptake of effective services by Chinese-immigrant families.

Behavioral parent training (BPT) has established validity in improving parenting behavior and reducing child disruptive behavior (Eyberg, Nelson, & Boggs, 2008). Although developed in the North American context, BPT also has been efficaciously implemented with Chinese parents in Hong Kong (Leung, Tsang, Heung, & Yiu, 2009) and with Chinese-immigrant parents in the United States (Reid, Webster-Stratton, & Beauchaine, 2001). However, despite their efficacy, BPT programs remain limited in their effectiveness. Parents often fail to actively participate in BPT programs, are sporadic in their attendance and completion of home practice assignments, and terminate treatment prematurely (Nock & Ferriter, 2005). Reduced utilization of BPT may be particularly common among Chinese-immigrant parents, perhaps due to poor cultural sensitivity of
BPT. Leung and colleagues (2006) found that Chinese families who had newly immigrated into
Hong Kong were significantly more likely to drop-out of a BPT program than non-immigrant
families. Within North America, Reid and colleagues (2001) found that, although ethnic minority
parents including Chinese-immigrants, who enrolled in a BPT program were as likely as Euro-
Americans to continue to attend, ethnic minority families were less likely to enroll in the program in
the first place. Furthermore, Asian-American parents reported that the techniques taught in the BPT
program were less useful compared to Euro-American, African-American, and Hispanic-American
parents. There is a need to explore cultural differences in the motivational processes that may
underlie these differences in parents’ participation in BPT.

Parents’ engagement in treatment is related to their view of the acceptability or
appropriateness of the treatment (Kazdin, 1980), and both acceptability and participation correlate
with BPT process and outcomes (Kazdin & Wassell, 1999). A sizable literature supports the general
acceptability of BPT treatments, particularly as compared to alternatives such as pharmacological
interventions (Johnston, Hommersen, & Seipp, 2008; Kazdin, 1980). However, much remains to be
known about possible differential acceptability of the types of techniques offered within BPT
programs, as well as the acceptability of techniques that may be more conventional to Chinese
culture but which are typically discouraged in BPT (e.g., spanking).

This study focused on the acceptability of three types of child management techniques (i.e.,
reward, withdrawal of positives, and punishment). Rewards techniques, including praise and token
economies, and techniques involving withdrawal of positive reinforcement, including time-out and
response cost, are commonly promoted in BPT programs (Eyberg et al., 2008). On the other hand,
punishment techniques, such as overcorrection and spanking, are now often discouraged in BPT, but
are often characteristic of Chinese parenting practices. Among Euro-North American parents reward
and withdrawal techniques are more accepted than punishment techniques, in both clinic-referred
and community samples of parents (Jones, Eyberg, Adams, & Boggs, 1997; Pemberton & Borrego, 2007). Although the acceptability of these child management techniques among Chinese-immigrant parents has not been examined, anecdotal evidence has described low approval of BPT techniques among Chinese parents in Hong Kong (Lieh-Mak, Lee, & Luk, 1984; Leung et al., 2009). In addition, supporting the contention that punishment techniques are conventional to Chinese culture, 57.6% of students in China reported experiencing some form of an overcorrection punishment technique (e.g., running laps, repetitive homework; Chen et al., 2006), and Chinese mothers of preschoolers score higher on physical coercion methods of discipline (e.g., spanking) compared to Euro-North American mothers (Wu et al., 2002). Together, these findings suggest that certain types of child management techniques (e.g., punishment) may be more acceptable for Chinese parents than other BPT techniques (e.g., praise). We argue that this differential acceptance of types of BPT techniques may be one factor related to the low rates of participation in BPT among Chinese parents. For example, BPT programs typically emphasize the goal of improving the parent-child relationship and dedicate a significant proportion of time to teaching positive reinforcement techniques particularly in the first half of the program. This initial emphasis on positive reinforcement may conflict with Chinese parents’ views of acceptable parenting practices for managing disruptive child behavior and may reduce their likelihood of engaging in BPT.

In sum, we predicted that Chinese-immigrant mothers would show greater acceptance of punishment techniques, and lower acceptance of the reward techniques taught in BPT compared to Euro-Canadian mothers. Little is known about the relative acceptability of withdrawal techniques for managing child behavior, although it is clear that many Chinese parents use versions of time-out (e.g., kneeling or standing in a corner or outside; Tian & He, 2004) and response cost (e.g., deprivation of special privileges or rewards; Chen et al., 2006), and hence may rate these techniques as relatively acceptable.
It is important to acknowledge that the transition from acceptance of parenting techniques to their actual implementation is one that families do not always make (Nock & Ferriter, 2005). However, within the theory of planned behavior (Ajzen, 1991), parental attitudes towards techniques (i.e., acceptability) would be an important factor in the formation of behavioral intentions, and it is this intent that would be the immediate antecedent of actual use of the techniques. Although intentions often engender only moderate effects on behavior and other factors are undoubtedly at play, studies do point to the importance of parental intention in determining the use of child management techniques (e.g., Dumas, Nissley-Tsiopinis, & Moreland, 2007). Therefore, we examine cultural differences in both acceptance and intention, and acceptance as a mediator of cultural differences in intentions to use the child management techniques.

We also examined two possible underlying mechanisms (i.e., parenting style and implicit theory) that may account for these cultural differences. Parenting style is defined as the attitudes toward the child that a parent transmits to the child which create an emotional climate surrounding parent-child exchanges (Baumrind, 1971). In comparison to Euro-American parents, Chinese parents have a more authoritarian (i.e., low warmth, high control) and less authoritative (i.e., high warmth, appropriate control) parenting style, although the latter finding is less robust (e.g., Wu et al., 2002). We speculate that cultural differences in the likelihood of the authoritarian parenting style, which emphasizes a high degree of control and punishment, may account for differences in Euro-Canadian and Chinese-immigrant mothers’ acceptance of punishment techniques. In addition, given that the authoritative parenting style emphasizes a high degree of warmth and acceptance and is more common among Euro-Canadian mothers, we predict that this variable may account for differences in Chinese-immigrant and Euro-Canadian mothers’ acceptance of reward techniques.

Emerging evidence suggests that existing parenting style dimensions do not capture the entirety of parenting among Chinese parents. For example, although Chinese parents are more
CULTURAL VARIATIONS IN MOTHERS’ ACCEPTABILITY

authoritarian than Euro-American parents, this more controlling and demanding parenting style is related to positive outcomes in Chinese children (Xu, Wan, Mussen, & Shen, 1991), but to negative child outcomes among Euro-Americans (Ang & Goh, 2006). Chao (1994) proposed the alternative parenting concept of “training” derived directly from Chinese cultural values which emphasize the importance of hard work, self-discipline, and obedience, and found that Chinese-immigrant mothers scored significantly higher on this training style compared to Euro-American mothers. Thus, the training parenting style was added in this study to examine whether it also might account for cultural differences in mothers’ acceptance of child management techniques.

Implicit theories were hypothesized as the second mechanism that may account for cultural differences in mothers’ acceptance of child management techniques. Implicit theories, defined as lay beliefs about the world, play a pivotal role in social understanding and guide people’s motivational goals, information processing, and patterns of responding to events (Dweck, 1999). Two types of implicit theories are distinguished: entity theory that portrays personal attributes as relatively fixed, and incremental theory that portrays attributes as relatively malleable. The theories orient individuals to focus on different motivational goals. Individuals with an entity theory orient more toward performance goals of highlighting positive attributes and downplaying negative ones. On the other hand, individuals with an incremental theory orient more toward learning goals of highlighting negative traits or behaviors to improve on, in lieu of emphasizing positive ones. Finally, cultural differences exist in the extent to which these different implicit theories are embraced, with Euro-North-Americans more likely to hold the entity theory, whereas East-Asians are more likely to hold the incremental theory (Heine et al., 2001). In the current study, it is expected that Euro-Canadian mothers will be more likely to hold an entity theory with performance goals of increasing positive child behavior or strengths, whereas Chinese-immigrant mothers will be more likely to hold an incremental theory with learning goals of improving negative child behavior.
or weaknesses. These differences in implicit theories were expected to account for Chinese immigrant mothers rating punishment techniques, which have the goal of decreasing negative child behavior problems as more acceptable than reward techniques, which have the goal of increasing positive behavior – a pattern opposite to that predicted for Euro-Canadians.

Method

Participants

Mothers of boys aged 4 to 8 years were recruited. A community, rather than a clinical, sample was chosen to allow for assessment of mothers’ attitudes towards the techniques prior to involvement with mental health services, as a likely proxy for how such beliefs may influence the early stages of treatment decision-making. Furthermore, this sample represents the general community whose perceptions of child management techniques are likely to directly and indirectly affect families seeking services, particularly among Chinese-immigrant mothers who often to look first to their families and close friends for help (Lau & Takeuchi, 2001).

Mothers were recruited using a registry of past research participants, and advertisements in newspapers, community centers, school newsletters, and online forums. Of 218 mothers who were screened for eligibility, 62 did not meet inclusion criteria (e.g., South Asian or African cultural background, children with a clinical diagnosis, female child, or Chinese-immigrant mothers who identified more with the mainstream culture than with their heritage culture). Of the 156 remaining participants, 122 fully completed the study (Eight mothers withdrew, 6 returned incomplete questionnaires, and 20 did not return the questionnaires despite repeated reminders). Five outliers were also excluded (see Results section). Thus, the final sample consisted of 117 mothers.

There were two groups of participants, differentiated by culture but all residing in Canada. The Euro-Canadian (EC) mothers \((n = 60)\) were of Western European descent, the majority of whom were born in Canada\(^1\). The Chinese-immigrant (CI) mothers \((n = 57)\) were born in the
country of their heritage descent (i.e., mainland China, Hong Kong, or Taiwan), but had immigrated to Canada. Descriptive characteristics of the groups are provided in the Results.

Measures

All measures were translated into both traditional and simplified Chinese using guidelines suggested by van Widenfelt, Treffers, de Beurs, Siebelink, and Koudijs (2005). Mothers were given the option of which language version of the measures they preferred.

Treatment acceptability measures.

Child management technique descriptions. All mothers read brief descriptions of six BPT techniques: praise, token economy, time-out, response cost, overcorrection, and spanking adapted from previous studies (Jones et al., 1998; Pemberton & Borrego, 2007). The descriptions were presented in random order, and also were available while mothers made their acceptability ratings.

Disruptive child behavior vignettes. After reading the technique descriptions, mothers read two vignettes describing a boy with disruptive behavior (also adapted from Jones et al. (1998) and Pemberton and Borrego (2007)). Mothers were informed that the descriptions were representative of the boy’s typical behavior, and were asked to imagine themselves as the mother of the boy. Piloting ensured the age and cultural appropriateness of the boy’s behavior.

Treatment Evaluation Inventory – Short Form (TEI – SF; Kelley, Heffer, Gresham, & Elliott, 1989). Following each child behavior vignette, each of the six management techniques was presented (in random order across mothers) and rated for acceptability using six items from the TEI-SF. Items are rated on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree. Ratings were averaged and higher scores represented greater acceptance. Overall, mothers made 36 ratings of acceptability (i.e., 6 items on the TEI-SF for each of the 6 child management techniques) for each of the two child disruptive behaviour vignettes. The acceptability ratings for praise and token economy were averaged across items and vignettes to create a
composite rating of acceptability of reward techniques (Cronbach’s alphas: .94 for EC, and .93 for CI); time-out and response cost ratings were averaged to create a rating of acceptability of withdrawal techniques (Cronbach’s alphas: .93 for both EC and CI); and overcorrection and spanking ratings were averaged for a rating of acceptability of punishment techniques (Cronbach’s alphas: .92 for EC, and .94 for CI).

**Intent to use child management techniques.** Mothers’ intentions to use the child management techniques were measured by asking: “If your child was exhibiting high levels of disruptive behavior problems, how likely it is that you would implement or use each of the following child management techniques?” Mothers answered on a 7-point Likert scale ranging from 1 = *very unlikely* to 7 = *very likely* for each of the six techniques (presented in random order). Similar methods of assessing intentions have been used in previous research with both Euro-North American and Chinese populations (e.g., Dumas et al., 2007; Mo & Mak, 2009). The intention ratings for praise and token economy were averaged to create a composite score of intention to use reward techniques; time-out and response cost were averaged for a score of intention to use withdrawal techniques; and overcorrection and spanking were averaged for a score of intention to use punishment techniques. To allow compatibility between the acceptability ratings which were measured on a 5-point scale and intention which was measured on a 7-point scale, a proportional transformation approach was used, multiplying each 7-point intention score by 5/7.

**Measures of mechanisms.**

*Parenting Authority Questionnaire- Revised (PAQR;* Reitman, Rhode, Hupp, & Altobello, 2002). The PAQR consists of three 10-item scales corresponding to authoritative, authoritarian, and permissive parenting styles. Items are rated on a 5-point Likert-type scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. This measure has demonstrated reasonable reliability and convergent validity in a predominantly Caucasian, higher SES sample (Reitman et al., 2002). Although the
measure has not been used with Chinese-immigrant parents, the psychometric properties among predominantly African-American, lower SES mothers are relatively comparable to those from Euro-American mothers, with the exception of poorer internal consistencies for the authoritative subscale (Reitman et al., 2002). Although all items were administered, only the authoritarian (Cronbach’s alphas: .71 for EC, and .73 for CI) and authoritative (Cronbach’s alphas: .75 for EC, and .73 for CI) subscales were examined.

**Training parenting style.** Chao (1994) derived six items based on Chinese child-rearing literature concerning ideologies of child development and the mother-child relationship which significantly distinguish Chinese and Euro-American mothers, and have modest internal consistency (Chen & Luster, 2002). For this study, one item was removed as its content overlapped with the acceptability of spanking. The other five items were averaged, with higher scores indicating stronger beliefs in the training parenting style (Cronbach’s alphas: .66 for EC, and .75 for CI).

**Implicit Person Theory Measure (IPTM; Dweck, 1999).** The IPTM is an 8-item, domain-general measure of implicit theories. All items were answered on a 6-point scale ranging from 1 = *strongly agree* to 6 = *strongly disagree*. The measure has high reliability and internal consistency, discriminant and convergent validity (Dweck, 1999; Dweck, Chiu, & Hong, 1995), as well as cross-cultural validity with Chinese participants (e.g. Hong, Chiu, Dwech, Lin, & Wan, 1999). In this study, Cronbach’s alphas were .93 for EC, and .86 for CI mothers.

**Goal orientation questions.** Mothers were asked two forced-choice questions to assess parenting goal orientation. The first question assessed motivational goals (i.e., performance vs. learning) and the second assessed child-rearing goals (i.e., to increase desirable child behavior vs. to decrease problem behavior). Research has demonstrated the validity of this approach to distinguish individuals with entity vs. incremental theories and their corresponding behavioral patterns in both Euro-American and Chinese samples (e.g., Hong, et al., 1999).
Demographic and covariate measures.

*Eyberg Child Behavior Inventory- Intensity Scale (ECBI; Eyberg & Pincus, 1999).* To assess potential differences across groups in the functioning of the mothers’ own children, mothers completed this 36-item measure. Each behavior is rated on a 7-point Intensity scale that assesses how often the behavior occurs in the home ranging from $1 = \textit{never}$ to $7 = \textit{always}$. This scale has acceptable psychometric properties (Funderburk, Eyberg, Rich, & Behar, 2003) and Cronbach’s alphas were .93 for EC, and .92 for CI mothers.

*Balanced Inventory of Desirable Responding – Impression Management subscale (BIDR-IM; Paulhus, 1991).* Given that attitudes toward parenting techniques may reflect social desirability, the BIDR was administered. Respondents rated their agreement with statements on a 7-point scale ranging from $1 = \textit{not true}$ to $7 = \textit{very true and}$ points are assigned for extreme desirable responses. In addition, as research has found high acquiescent response bias among collectivistic cultures such as Chinese (Smith, 2004), acquiescence was assessed by adding the raw scores of the items that were keyed negatively, with higher scores reflecting greater yea-saying. The BIDR demonstrates satisfactory psychometric properties (Paulhus, 1991) and evidence of convergent and discriminant validity when used with Chinese samples (e.g., Lalwani, Shavit, & Johnson, 2006). In this study, Cronbach’s alphas were .83 for both EC and CI groups.

*Demographics and Treatment History Questionnaire.* Demographic characteristics and previous knowledge and experience (e.g., current use) with behavior management techniques were assessed as they may affect ratings of treatment acceptability.

*Attitudes Towards Seeking Professional Psychological Help Scale – Short Form (ATSPPHS; Fischer & Farina, 1995).* Because cultural differences in willingness to seek professional help may affect attitudes towards BPT techniques, the 10-item version of the ATSPPHS was included. Items are rated on a 4-point Likert-type scale from $0 = \textit{disagree}$ to $3 =$
agree. This measure has good internal consistency and validity in both Euro-American and Chinese samples (Fischer & Farina, 1995; Fung & Wong, 2007). In this study, Cronbach’s alphas were .82 for EC, and .81 for CI groups.

**Vancouver Index of Acculturation** ([VIA; Ryder, Alden, & Paulhus, 2000](#)). The 20-item VIA assessed mothers’ acculturation in domains of values, social relationships, and adherence to traditions. Each item is rated on a 9-point scale ranging from 1 = *strongly disagree* to 9 = *strongly agree*. Two subscale scores are computed, signifying identification with the heritage culture and with the mainstream culture. Satisfactory psychometric properties have been demonstrated for the VIA, including cross-cultural validity for use with Chinese-immigrants ([Ryder et al., 2000](#)). In this study, Cronbach’s alphas for the heritage and mainstream dimensions were .88 and .88 for EC, and .84 and .86 for CI groups, respectively.

**Procedure**

Approval for the study project was obtained from the University's ethical review board. When mothers contacted the laboratory, a research assistant described the study, in the preferred language of the mother (i.e., English, Mandarin, or Cantonese), and if mothers were interested, a brief screening for eligibility was conducted. Eligible mothers were sent the questionnaires in their chosen language via either e-mail or regular mail⁵. The initial pages of the questionnaire provided the information required for consent and general instructions. Next, mothers read the descriptions of the six child management techniques. Mothers then read one of the child behavior vignettes, followed by ratings of the acceptability of each of the six techniques to manage the boy’s behavior. Mothers completed the impression management measure after the acceptability ratings for the first vignette. Then, mothers read the remaining vignette and rated the acceptability of child management techniques again. Afterwards, mothers were asked how easy it was to imagine being the mother of the boy described in the vignettes on a 10-point scale ranging from 1 = *easy* to 10 = *hard*. The
demographics and child behavior measures were then presented before the next set of
questionnaires as a way to prompt mothers to think about their own children as opposed to the
hypothetical vignettes. Then, mothers completed the measures of goal orientation and implicit
theory, and measures of parenting style and help-seeking attitudes. Finally, all mothers completed
the acculturation questionnaire. Mothers were given $10 for participation.

Results

Data Inspection and Preliminary Analyses

Five multivariate outliers (4 EC and 1 CI) were identified and were excluded from analyses.
Cases where mothers were missing data for a complete subscale were excluded analysis by analysis,
resulting in a maximum of one case in each analysis. All scores appeared normally distributed.

Sample Characteristics

Group differences on descriptive and control variables are presented in Table 1. For both
groups, the mothers were predominantly married and middle-class. None of their children had
physical, mental, or behavioral disorders, and 85.5% fell below the clinical level on the ECBI
Intensity subscale (Colvin, Eyberg, & Adams, 1999). Over 80% of mothers in both cultural groups
reported that they started using child management techniques more than 2 years ago, and were
currently using these techniques on either a daily or occasional (i.e., 2-3 times per week) basis (no
significant group differences were found). The groups differed in current use of punishment
techniques $\chi^2 (1) = 16.27, p < .001, \varphi = .37$ with 56% of CI mothers and 20% of EC mothers
currently used punishment techniques. There also were significant group differences in SES,
identifications with heritage and mainstream cultures, difficulty imagining the hypothetical
vignettes, and attitudes towards psychological help-seeking. It is worth noting that the cultural
difference in SES is likely a reflection of the immigrant status of the Chinese group of mothers, and
is driven by occupational status rather than educational level.
We considered variables that correlated significantly with the dependent variable but which did not reflect preexisting group differences as potential covariates. Mothers’ attitudes towards psychological help-seeking were significantly correlated with their acceptance of and intention to use punishment techniques, $r(115) = -.26, p < .01$, and $r(115) = -.20, p < .05$, respectively. In addition, mothers’ current use of punishment techniques was related to their acceptance of and intention to use punishment techniques, $r(115) = .53, p < .001$, and $r(115) = .43, p < .001$. However, these variables are likely indicative of preexisting group differences, and thus, were not used as covariates. On the other hand, difficulty imagining the vignettes was significantly correlated with acceptability ratings for reward, $r(115) = .19, p < .05$, and punishment techniques, $r(115) = .33, p < .001$. Given that this variable was related to the methodology of this study, and may not reflect preexisting group differences, it was retained as a covariate as described below.

**Cultural Differences in Acceptance of and Intention to use the Parenting Techniques**

A three-way mixed ANCOVA examined differences in mothers’ attitudes towards child management techniques with one between-subjects factor: cultural group (EC vs. CI), and two within-subjects factors: type of technique (reward, withdrawal, punishment), and type of rating (acceptability, intent), with difficulty imagining the vignettes as a covariate (see Table 2). The main effects of cultural group, $F(1, 112) = 16.19, p < .001, \eta^2 = .13$, and type of technique, $F(2, 224) = 26.93, p < .001, \eta^2 = .19$, were significant, but were qualified by a significant interaction, $F(2, 224) = 4.62, p < .05, \eta^2 = .04$. Other effects were not significant. Follow-up tests of the interaction looked at the effect of cultural group for each technique. For punishment, the simple main effect was significant, $F(1,112) = 27.83, p < .001, \eta^2 = .20$, with CI mothers accepting and intending to use punishment ($M = 2.67, SD = .10$) more than EC mothers ($M = 1.91, SD = .09$). For reward and withdrawal techniques, no significant cultural differences in mothers’ attitudes were found ($F(1,112) = 2.94, p > .05, \eta^2 = .03$; and $F(1,112) = 1.43, p > .05, \eta^2 = .01$, respectively). Additional
follow-up tests examining the effect of type of technique within EC and CI mothers separately indicated that within both cultural groups, the simple main effects were significant (for EC: $F(2,111) = 108.35, p < .001, \eta^2 = .66$; for CI: $F(2,111) = 48.47, p < .001, \eta^2 = .47$), with punishment rated less favorably than reward and withdrawal. In sum, the hypotheses were partially supported with cultural differences in mothers’ acceptability/intent attitudes towards punishment techniques, but no differences in mothers’ attitudes towards reward or withdrawal techniques.

Correlations between ratings of acceptability and intent were conducted for both cultural groups to verify the association between these beliefs as predicted by the theory of planned behavior. As expected, mothers’ acceptability ratings were related to their intention to use both reward, $r(116) = .45, p < .001$, and withdrawal, $r(116) = .58, p < .001$, techniques.

**Cultural Differences in Underlying Mechanisms**

Given the significant cultural difference in mothers’ attitudes towards punishment techniques, the parenting style and implicit theory variables were compared between the EC and CI mothers to identify which variables to test as possible mediators of this cultural difference. There were significant differences between cultural groups in authoritarian ($t(115) = -4.96, p < .001, d = .93$) and training ($t(115) = -8.95, p < .001, d = 1.66$) parenting styles as predicted, but no significant difference on authoritative parenting style ($t(115) = 1.41, p > .05$). CI mothers had more authoritarian ($M = 3.25, SD = .50$) and training ($M = 4.16, SD = .56$) parenting styles compared to EC mothers ($M = 2.81, SD = .46$; and $M = 3.11, SD = .70$, respectively). Contrary to hypotheses, no significant cultural differences were found on implicit theory ($t(115) = -1.76, p > .05$) or goal orientation questions ($\chi^2 (1) = 2.55, p > .05$; and $\chi^2 (1) = 0.68, p > .05$). Both groups had moderate ratings on implicit theory (i.e., approximately 3.5 on a scale from 1 = incremental theory to 6 = entity theory), and the majority of mothers in both groups indicated a preference to improve child weaknesses and have less negative child behaviors.
In addition to being significantly different between cultural groups, to be considered as a potential mediator, authoritarian and training parenting style would have to correlate significantly with acceptance of and intent to use punishment techniques. Across all mothers, partial correlations controlling for difficulty imagining vignettes were significant between authoritarian parenting and acceptability of and intent to use punishment techniques, \( r(112) = .45, p < .001 \), and \( r(112) = .34, p < .001 \), respectively. In addition, training parenting style was significantly related to acceptability of and intent to use punishment, \( r(112) = .42, p < .001 \), and \( r(112) = .40, p < .001 \), respectively. Thus, these variables were examined as possible mediators.

**Mediation of Cultural Differences**

To determine whether each of the authoritarian and training parenting styles mediated the relationship between cultural group and acceptability of punishment techniques, and whether mothers’ acceptance of techniques mediates their intentions to use punishment techniques, the statistical procedures for assessing a three-path mediational model using the SAS macro recommended by Taylor, MacKinnon, and Tein (2008) were used. This model involves two mediators (i.e., parenting style and acceptability) intervening in a series between an independent and dependent variable (i.e., culture and intention to use punishment techniques). Two separate tests (path A through authoritarian parenting style, and path B through training parenting style) were conducted (refer to Figure 1). Mothers’ ratings of difficulty imagining the vignettes continued to be used as a covariate in these analyses. To estimate the mediated effects (i.e., the product of coefficients \( b_1b_2b_3 \)), bootstrapping analyses with 1000 resamples were used to derive 95% confidence intervals. This method has been recommended, as an alternative to using a Sobel test, as a way to draw valid and reliable conclusions in instances where sample sizes are small and the assumption of normality cannot be met (Preacher & Hayes, 2004).
**Pathway A through authoritarian parenting style.** As the first part of the path analysis, a test of the overall model using a multiple regression analysis showed that 41.98% of the total variance in mothers’ intention to use punishment techniques was accounted for by culture, authoritarian parenting style, and acceptability. Each of the three paths \( (b_{1A}, b_{2A}, b_{3A}) \) in the mediated effect were significant, \( t(115) = 5.10, p < .001, t(115) = 4.31, p < .001, t(115) = 5.90, p < .001, \) respectively. The mediated effect \( (b_{1A}b_{2A}b_{3A}) = 0.17 \), and the 95% confidence interval excluded zero [0.05, 0.31], indicating a significant, albeit weak, indirect effect of culture on intent to use punishment techniques through authoritarian parenting style and acceptability, consecutively. Shrout and Bolger (2002) suggested that the strength of mediation should be represented as a proportion of the effect size mediated, \( P_M \) (defined as the indirect effect divided by the total effect). In this study, \( P_M = 0.17 / 0.48 = 0.35 \), indicating that approximately a third of the total effect of culture on intent to use punishment techniques was mediated through authoritarian parenting style and acceptability.

**Pathway B through training parenting style.** A multiple regression analysis showed that 41.72% of the total variance in mothers’ intention to use punishment techniques was accounted for by culture, training parenting style, and acceptability. However, one of the three paths \( (b_{1A}, b_{2A}, b_{3A}) \) was not significantly different from zero, \( t(115) = 4.83, p < .001, t(115) = 1.71, p = .09, t(115) = 6.61, p < .001, \) respectively. The mediated effect \( (b_{1A}b_{2A}b_{3A}) = 0.07 \), and the 95% confidence interval included zero [-0.01, 0.21], indicating that the indirect effect of culture on intent to use punishment techniques through training and acceptability, consecutively, was not significant.

**Discussion**

This study examined cultural differences in mothers’ acceptance of different child management techniques, and the underlying roles of parenting style and implicit theory in explaining any cultural differences. As predicted, more than Euro-Canadian mothers, Chinese-
immigrant mothers indicated they accept and intend to use punishment techniques to manage disruptive child behavior problems. Cultural differences in mothers’ authoritarian parenting style, characterized by high levels of control endorsed by the Chinese-immigrant mothers, accounted for significant variance in their acceptance of the punishment techniques, which in turn accounted for a significant part of their intent to use these techniques. However, contrary to hypotheses, no cultural differences were found in mothers’ views of reward or withdrawal techniques; although as expected, across all mothers, acceptability ratings were related to their intentions to use the techniques. Furthermore, across all mothers, acceptability and intent to use reward and withdrawal techniques were greater than these ratings for punishment techniques. Taken together, these findings suggest that Chinese-immigrant mothers are just as accepting of techniques emphasized in BPT (i.e., praise, token economy, time-out, and response cost) as Euro-Canadians; but Chinese-immigrant mothers also are more accepting of punishment techniques that are typically discouraged or not included in BPT programs. This study adds to existing literature by demonstrating cultural differences and similarities in mothers’ attitudes towards different techniques for managing disruptive child behavior problems.

Two major cultural differences are highlighted in this study. The first pertains to mothers’ attitudes towards punishment. Previous research has shown that the relative benefits vs. harms of spanking in relation to child outcomes may be moderated by family cultural background (Deater-Deckard & Dodge, 1997). Spanking has typically been associated with increased aggression among Euro-North American children, but has been associated with decreased or no significant change in aggression among African-American children (Gunnoe & Mariner, 1997). Furthermore, less negative child outcomes associated with spanking have been found in cultures where children themselves view spanking as normative and beneficial (Deater-Deckard & Dodge, 1997). Such influence of cultural context on the association between spanking and child problems is consistent
with the data from the current study demonstrating that, although current use of spanking among Euro-Canadian mothers was related to more child behavior problems ($r(58) = .28, p < .05$), use of spanking among Chinese-immigrant mothers was related to fewer child behavior problems ($r(54) = -.30, p < .05$). In addition, studies have found that child outcomes are less negative in cultures where spanking is used instrumentally rather than emotionally, which is more often characteristic of an authoritarian parenting style (e.g., Holden, Miller, & Harris, 1999; Straus & Mouradian, 1998).

This would be consistent with the second cultural difference found in the current study in which the more authoritarian parenting style of Chinese-immigrant mothers accounted for a significant portion of their more favorable attitudes towards punishment techniques. However, it is also worth noting that no significant difference between Chinese-immigrant and Euro-Canadian mothers was found in authoritative parenting style. This strengthens the argument that, although Chinese-immigrant mothers are stricter and more demanding, they are not necessarily less warm or less accepting of the child than Euro-Canadian mothers. The construct of a training parenting style deserves further study, and such study will be facilitated by an initial focus on measurement. Future research should address the relatively low internal consistency ($\alpha = .68$ in this study) of the items suggested by Chao (1994) and the addition of items that are central to the construct is desirable. It also will be important to test the distinctiveness between training and authoritarian parenting styles.

The results from this study revealed two unexpected null findings. First, there were no significant cultural differences in mothers’ attitudes to reward techniques, despite anecdotal reports suggesting that Chinese mothers have difficulties with these techniques (e.g., Lieh-Mak et al., 1894; Leung et al., 2009). One possible explanation is that praise may be used differently in Chinese vs. Euro-Canadian families. For instance, a recent study reported that Chinese parents use praise as a motivator before the desired child behavior (e.g., calmly telling the child that he is a “good boy” as a way of communicating the parents’ expectations that the child will behave appropriately), whereas
Euro-North American parents typically use praise as a consequence after positive child behavior (e.g., positively telling the child that he is a “good boy” for complying to the parents’ demands) (Wang, Wiley, & Chiu, 2008). Perhaps Chinese-immigrant and Euro-Canadian mothers in this study rated reward techniques as equally acceptable, yet conceptualized rewards differently.

Second, the nonsignificant cultural differences in mothers’ implicit theories and goal orientations also were not expected. Previous studies (e.g., Heine et al., 2001) demonstrating consistent differences between East-Asian and Euro-North American individuals in these constructs have typically involved different participant samples (e.g., undergraduate students), and/or used different wording in the measure (e.g., more specific and personal items: “I can change my intelligence”) in comparison to the current study. We speculate that any, or all, of these methodological differences may explain the divergence of results. It is possible that there is something unique about mothers’ beliefs about child behavior problems that does not correspond to implicit theories as expressed in relation to other domains or targets. For instance, across both cultural groups, the majority of mothers preferred fewer problem child behaviors in contrast to more positive child behaviors, but this preference did not correspond with the relatively even distribution of mothers’ endorsement of incremental and entity theories. In the absence of an established measure specifically targeting mothers’ beliefs regarding whether she can change her child’s problem behavior, we opted to ask for general person beliefs. In hindsight, it may have been more useful to use the more specific measure wording used in previous studies.

**Implications for Research, Policy, and Practice**

The results from this study have implications for implementing BPT programs in a culturally-sensitive and effective manner with Chinese-immigrant families. Across both Euro-Canadian and Chinese-immigrant mothers and for all three types of child behavior management techniques, ratings of acceptability were significantly related to ratings of intent to use the
techniques. This highlights the importance of parental acceptance as a precursor to the use of the
techniques taught in BPT programs. The finding that Chinese-immigrant mothers accept and intend
to use the reward and withdrawal techniques offered in BPT at levels equal to those of Euro-
Canadian mothers suggests that these techniques are indeed culturally appropriate for these two
groups. The small between-group effect sizes ($\eta^2 < .05$) offer confidence in the lack of difference. In
addition, the mean levels of acceptability and intent ratings for reward and withdrawal techniques
were in the moderately high range for both cultural groups (ratings of 3.5 to 3.9 out of 5.0), and are
consistent with those reported for Euro-American mothers of children with diagnosed oppositional
or conduct disorders (e.g., ratings of 3.6 to 3.8 out of 5.0; Jones et al., 1998). This suggests that
despite the community sample in this study, findings may generalize to mothers of children who
show higher levels of behavior problems.

The Chinese-immigrant mothers in this study accepted and intended to use punishment
techniques more than Euro-Canadians. This is consistent with findings that 60-85% of Euro-
Canadian mothers endorsed negative attitudes towards to physical punishment (Durrant, Rose-
Krasnor, & Broberg, 2003). In explaining how this higher rate of punishment acceptance among
Chinese-immigrant mothers may be related to their lower participation in BPT, it is useful to think
of the role that the cultural community may play in influencing parents’ treatment decisions. For
example, perceptions of what other people think about one’s behavior are a significant predictor of
help-seeking intention among Chinese individuals (Mo & Mak, 2009), given that the Chinese
culture places significant value on interpersonal harmony, conformity within society, respect to
authority figures, and concern for loss of face. This points to one aspect of BPT that may not be
culturally sensitive to the Chinese culture. That is, because punishment techniques such as spanking
are typically frowned upon in current BPT programs, Chinese-immigrant parents may hesitate to
enroll in BPT out of fear of disapproval of their ways of child behavior management. Such
reluctance is consistent with previous findings that Chinese parents are less likely to start BPT programs than Euro-North Americans (Reid et al., 2001), and with the finding in the current study demonstrating that Chinese-immigrant mothers had less favorable attitudes towards seeking professional help than Euro-Canadians. It will be important to further investigate the impact of this relatively more accepting attitude toward punishment on parents’ feelings of shame or stigma, and how these factors may hinder professional help-seeking.

We do not interpret the findings of this study to mean that BPT programs should encourage and incorporate the use of punishment techniques in order to be culturally sensitive to the values and practices of Chinese-immigrant families. We only suggest that clinicians who implement BPT with families of Chinese heritage may need to exercise caution in expressing negative judgments regarding the appropriateness of using punishment techniques to manage child behavior problems. As previously discussed, the use of physical punishment may not be related to negative child outcomes among Chinese families, and out-right rejection of this parenting strategy may serve only to alienate these families. It also is helpful to recall that mothers in both cultural groups found reward and withdrawal techniques to be more acceptable than punishment. Thus, an emphasis on encouraging these strategies may be a more culturally appropriate tactic.

Limitations

Cultural comparisons in this study focused only on Euro-Canadian and Chinese-immigrant mothers. The beliefs and attitudes held by the Chinese-immigrant mothers in this study may not be generalized to those of Chinese mothers residing in their country of origin nor to those of Chinese mothers who have chosen to immigrate to other countries. A methodological limitation of the current study is the use of a simple self-report measure of intention to use techniques rather than assessing mothers’ actual use of the parenting strategies. Nevertheless, the findings from the intent measure demonstrate concurrent validity because the pattern is consistent with mothers’ reports of
their current use of techniques. Clearly, confidence in the validity of the findings would be boosted further with the addition of an objective measure of mothers’ use of techniques.

Because a fully mediated model was not supported in this study, it is clear that parenting styles are not the only factors to may mediate cultural differences in parental attitudes and use of child behavior management techniques. It would be helpful for future research to extend the model to include other relevant variables, such as mothers’ normative beliefs and perceived control as suggested by the theory of planned behavior (Ajzen, 1991). Other contributing factors to consider include perceived barriers to treatment participation, parental attributions, motivation and readiness to change, or parenting efficacy. It also is important to note that although the mediation models in this study tested the pathways in a specific direction (i.e., from culture to intent through parenting style and acceptability), the results do not, and cannot, imply causality, since there is no temporal precedence of the mediator and outcome variables in this study.

Conclusion

This study demonstrated the importance of considering the implications of cultural differences in mothers’ acceptance of different child management techniques for understanding mothers’ potential engagement in BPT programs. Results suggest that although both Chinese-immigrant and Euro-Canadian mothers similarly accept and intend to use BPT techniques, differential attitudes towards punishment techniques that are discouraged in BPT may be related to greater hesitancy to enroll in BPT among Chinese-immigrant families. Future work is required to examine other contributing factors to cultural differences in parental attitudes and use of BPT, and to create and validate a culturally-sensitive and effective BPT program adaptation for Chinese-immigrant families.
References


CULTURAL VARIATIONS IN MOTHERS’ ACCEPTABILITY


Footnotes

1 Nineteen EC mothers were born outside of Canada but there were no significant differences between native vs. immigrated EC mothers in their identification with the mainstream culture on the Vancouver Index of Acculturation, $r(58) = .17, p = n.s.$

2 All EC mothers received English versions of the measures; Of the CI mothers, 63.2% received Chinese versions and 36.8% received English versions. Mothers’ choice of English versions was related to their acculturation to North American culture, $r(55) = .28, p < .05$. However, no significant differences on any of the outcome measures were found between the type of language versions that the Chinese-immigrant mothers received, with the exception that Chinese mothers who chose Chinese language versions rated themselves as having more difficulty imagining vignettes than those who chose English versions.

3 From the final sample, 23.93% of mothers completed the study via mailed-in paper questionnaires, with a greater proportion of CI mothers (33.33%) choosing this method compared to EC mothers (15.00%), $\chi^2(1) = 5.40, p < .05$. However, no significant differences on any of the outcome measures were found between mothers who completed electronic vs. paper versions of the questionnaires.

4 To reduce the number of ratings that the mothers were required to complete, three TEI-SF items with lower factor loadings for overall acceptability were not used.

5 Spanking is one form of punishment technique, and is emphasized in this discussion due to limited literature on cultural issues related to overcorrection, the other form of punishment technique.
Table 1

Descriptive Information for Euro-Canadian and Chinese-Immigrant Mothers

<table>
<thead>
<tr>
<th>Variable</th>
<th>Euro-Canadian (n = 60)</th>
<th>Chinese immigrant (n = 57)</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother age (in years)</td>
<td>38.03 ± 4.25</td>
<td>39.23 ± 4.10</td>
<td>t(114) = -1.55, n.s.</td>
</tr>
<tr>
<td>Mother’s child’s age (in years)</td>
<td>5.62 ± 1.33</td>
<td>5.67 ± 1.23</td>
<td>t(115) = -0.21, n.s.</td>
</tr>
<tr>
<td>Family SES&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45.13 ± 12.14</td>
<td>38.36 ± 13.46</td>
<td>t(114) = 2.85, p &lt; .01, d = .53</td>
</tr>
<tr>
<td>VAI Heritage culture ident&lt;sup&gt;b&lt;/sup&gt;</td>
<td>6.46 ± 1.28</td>
<td>7.29 ± 0.88</td>
<td>t(115) = -4.06, p &lt; .001, d = .76</td>
</tr>
<tr>
<td>VIA Mainstream culture ident&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7.01 ± 1.09</td>
<td>5.47 ± 1.24</td>
<td>t(115) = 7.11, p &lt; .001, d = 1.32</td>
</tr>
<tr>
<td>ECBI Child behavioral problems&lt;sup&gt;c&lt;/sup&gt;</td>
<td>97.30 ± 28.51</td>
<td>105.61 ± 28.25</td>
<td>t(115) = -1.58, n.s.</td>
</tr>
<tr>
<td>BIDR Impression management&lt;sup&gt;d&lt;/sup&gt;</td>
<td>10.37 ± 4.29</td>
<td>10.93 ± 4.34</td>
<td>t(115) = -0.71, n.s.</td>
</tr>
<tr>
<td>BIDR Acquiescent responding&lt;sup&gt;d&lt;/sup&gt;</td>
<td>31.83 ± 10.30</td>
<td>29.47 ± 10.60</td>
<td>t(115) = 1.22, n.s.</td>
</tr>
<tr>
<td>Difficulty imagining scenarios</td>
<td>5.17 ± 2.80</td>
<td>7.82 ± 1.97</td>
<td>t(114) = -5.92, p &lt; .001, d = 1.11</td>
</tr>
<tr>
<td>Psychological help-seeking&lt;sup&gt;e&lt;/sup&gt;</td>
<td>21.00 ± 5.05</td>
<td>17.98 ± 5.24</td>
<td>t(115) = 3.17, p &lt; .01, d = .59</td>
</tr>
</tbody>
</table>

<sup>a</sup> On the Hollingshead Four Factor Index of Social Status (1975); <sup>b</sup> Vancouver Acculturation Index culture identification; <sup>c</sup> Eyberg Child Behavior Inventory; <sup>d</sup> Balanced Inventory of Desirable Responding; <sup>e</sup> Attitudes Towards Seeking Professional Psychological Help Scale – Short Form.
Table 2

Acceptability and Intent towards Reward, Withdrawal, and Punishment Techniques in Euro-Canadian and Chinese-Immigrant Mothers

<table>
<thead>
<tr>
<th>Type of Technique</th>
<th>Euro-Canadian mothers</th>
<th>Chinese immigrant mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acceptability</td>
<td>Intent</td>
</tr>
<tr>
<td>Reward</td>
<td>3.61 (.07)</td>
<td>3.51 (.15)</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>3.61 (.07)</td>
<td>3.69 (.15)</td>
</tr>
<tr>
<td>Punishment</td>
<td>2.09 (.07)</td>
<td>1.67 (.12)</td>
</tr>
</tbody>
</table>

Note: Ratings were made on a scale from 1 to 5, with higher ratings reflecting greater acceptability or intent. Values indicate marginal means controlling for difficulty imagining vignettes.
Figure 1. Two separate three-path mediation models linking culture to intent to use punishment.