TEACHERS WHO ARE MULTICULTURALLY COMPETENT ALSO USE MORE DEVELOPMENTALLY APPROPRIATE PRACTICES: A STUDY OF HONG KONG KINDERGARTENS

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Abstract - An educational reform proposal in 2000 emphasized the need to upgrade the professional teaching competence of Hong Kong educators at all levels, with one area of focus being multiculturalism.In the current study we test a conceptual model in which teachers' knowledge and skills of multiculturalism and teaching relationship (cultural harmony) are associated with developmentally appropriate and inappropriate beliefs and practices in the classroom.Participants were 347 preschool teachers from 12 preschools including342 women (98.6 %) and 5 men (1.4%) ages from 24 to 45 located across all five districts of Hong Kong. The hypothesized model of multicultural teaching competency as a predictor of developmentally appropriate beliefs and practices, is confirmed in the present study. Multicultural teaching knowledge can enhance developmentally appropriate teaching beliefs and practices, and reduce developmentally inappropriate practices. It is highly recommended that multicultural education be embedded in early childhood education programs for both in-service and pre-service teachers. In addition, it is suggested that researchers further study teachers' attitudes toward multicultural education in terms of teaching beliefs and practices with a series of implicit attitude tests. Future research should also focus on environmental influences on multicultural teaching, such as school bureaucracy.

Keywords - Developmentally appropriate beliefs and practices, Multicultural teaching

I. DAP

The Association of Childhood Education International (1986) advocated developmentally appropriate kindergartens staffed by teachers who are knowledgeable about child development, listen thoughtfully to children, design positive learning environments, help children establish self-esteem, utilize a variety of instructional approaches, provide varied experiences for kindergarten children, and regularly assess children's interests, needs, and skill levels. This approach is similar to what NAEYC (1987) has called Developmentally Appropriate Practices (DAP). NAEYC'sgeneral guidelines for DAP have been implemented in many countries, and have become the dominant paradigm in early childhood education[25, 42, 45, 29, 30]. DAP has been found to be associated with children's creative and critical thinking[12], learning in academic domains[31], and applied knowledge[20].

DAP guidelines are meant to be implemented in all classrooms, regardless of students' socioeconomic status, culture, race, gender, age, and special needs[6]. With regard to multiculturalism, the assumption is that awareness of cultural context should inform early childhood teachers' practices[2].However, the NAEYC guidelines give short shrift to DAP in a multicultural classroom. For example, in NAEYC's original measure to assess DAP[37], only two items concerned cultural diversity, and research has shown that these items may not be suitable for use with Hong Kong preschool teachers[26].Although the current version of the NAEYC measure[37]includes more items about cultural diversity than in the past, there is still work to do to understand DAP in multicultural classrooms.

1.1 Multicultural Responsiveness and DAP

Cultural responsiveness refers to teachers' knowledge, skills, and practices that make the classroom experience of ethnic minority students compatible with their diverse needs[14, 19, 24]. The concept is grounded on the assumption that when teachers consider the cross-cultural experience of minority students, students' learning is supported, teachers become more competent, and teachers show more sociopolitical consciousness[14]. Several reasons justify the inclusion of cultural responsiveness in DAP guidelines. First, DAP prepares students to live in an increasingly diverse world [31] Second, experience in a multicultural classroom enhances students' sense of connection with one another [14]. Third, culturally responsive teaching enhances the learning process of all students regardless of ethnicity[20].

1.2 Assessment of Multicultural Sensitivity and DAPin Hong Kong

The most commonly used Western measure of DAPis the Teacher Beliefs and Practices Survey (TBPS[4]), which includes items on beliefs and practices with respect to multiculturalism. However, several cross-cultural studies [25, 42, 45]have shown that some items are inconsistent with DAP as they are conceptualized in Asian countries.For example, factor analysis showed that two items fromthe original TBPS[4]had low factor loadings in the Hong Kong version of the measure(Leung, 2012). These items were "It is important for activities to be responsive to the cultural diversity of students" and "It is important for teachers to integrate each child's home culture and language with the curriculum." These items were

dropped from the Hong Kong measure, as they appeared not to represent adequately the beliefs and practices of Hong Kong preschool teachers with regard to DAP[26]. Nevertheless, even without these items, scores on the TBPS-Hong Kong version have been shown to be correlated with scores on theHong Kong version of the Multicultural Teaching Competency Scale (MTCS[28].

1.3 Multicultural Teaching Competency Scale

The Multicultural Teaching Competency Scale (MTCS) was developed by Spaniermanet al.[43] based on Sue et al.'s [44] research to assess three constructs related to teachers' multicultural competence. Awareness refers to teachers' awareness of self and others as cultural beings; their attitudes and biases; and the need to create culturally sensitive environments. Knowledge refers to teachers' knowledge of culturally responsive pedagogies related to cultural and ethnic diversity, and the sociopolitical and cultural realities that may affect relations with other teachers. Skills refers to teachers' capability to devise, implement, and evaluate strategies that facilitate students' academic achievement and personal growth; select and implement culturally responsive strategies of behavior management; and review and evaluate policies, procedures, and practices related to cultural responsiveness.

The MTCS-Hong Kong version shows the same three-factor structure as the original version, providing evidence that it is a valid measure of teachers' multicultural sensitivity in the cultural context of Hong Kong[28]. In the current study wetested a conceptual model in whichmulticultural teaching skills, multicultural teaching knowledge, and multicultural teaching relationshipsare associated with DAP (defined as developmentally appropriate beliefs, a lack of inappropriate beliefs, and appropriate practices in the classroom).

II. METHOD

2.1 Participants

Participants were 393 preschool teachers from 12 preschools located across all five districts of Hong Kong. Questionnaires containing missing values (n = 23) or with scores that were univariate outliers (z score ± 2; n = 23) were not included in the statistical analyses. The remaining sample (N = 347) included 342 women (98.6%) ages 24 to 45,and 5 men (1.4%) ages 24 to 28. Teaching experience ranged from: less than 3 years (n =100, 28.8%); 4 to 6 years (n = 36, 10.4%); 7 to 9 years (n = 11, 3.2%); 10 to 12 years (n = 27, 7.8%); 13 to 15 years (n = 38, 11%); and more than 15 years (n = 135, 38.9%).

2.2 Measures

Hong Kong Version of the Multicultural Teaching Competency Scale (MTCS-Hong Kong[28]).This measure is based on the U.S. version of the 56-item MTCS [43], a multidimensional scale used to assess teachers' competence in multicultural teaching. Factor analysis on the Hong Kong version identified three factors: multicultural teaching skills (4 items), multicultural teaching knowledge (three items), and multicultural teaching relationships (4 items). Items are rated on a six-point Likert-type scale ranging from 1 (strongly disagree) to 6 (strongly agree). High scores indicate high levels of multicultural teaching competence. The overall reliability of the measure was 0.83, and reliabilities of the three subscales ranged from 0.71 to 0.86.

Teaching Beliefs Scale (TBS) – Hong Kong Version[26]was used as a measure of kindergarten teachers' beliefs about DAP. The measure assesses developmentally appropriate beliefs (9 items), developmentally inappropriate beliefs (5 items), and beliefs about family, culture, and inclusion (5 items). The 19 items are rated according to a five-point Likert scale, with anchors of 1 (not at all important) to 5 (extremely important).

Instructional Activities Scale (IAS) – Hong Kong Version26 measures teachers' self-reported frequency of developmentally appropriate classroom practices (6 items), developmentally appropriate classroom activities (6 items), developmentally inappropriate classroom activities (4 items), and developmentally inappropriate classroom practices (2 items). The 18 items are rated on a five-point Likert scale, with anchors of1 (almost never, less than monthly), 2 (rarely, monthly), 3 (sometimes, weekly), 4 (regularly, 2-4 times a week), and 5 (often, daily).

2.3 Procedure

The research was approved by the Ethics Approval Committee of The Education University of Hong Kong. Invitation letters were sent to directors of 18 kindergartens with whom the research team had professional connections, and 12 agreed to join the project. These 12 kindergartens came from all five districts of Hong Kong. After receiving permission from the directors, information sheets were disseminated to teachers. Teachers who voluntarily participated gave passive consent; those who chose not to participate completed an opt-out form. All data were destroyed after study completion.

III. RESULTS

3.1 Measurement Model

The measurement model had a normed chi-square < 3.0 (1.293),which is the traditional measure for evaluating overall model fit [17]. Goodness-of-fit indices that are less sensitive to sample size were thus used to evaluate the measurement model tested in this section and the path model tested in the next section (Hu & Bentler, 1998; Kline, 2011). The measurement model showed good fit: GFI = 0.916, RMSEA = 0.035, SRMR = 0.060, Hoelter's CN = 239.

3.2 Structural Model

Given the acceptable fit of the measurement model, we next tested whether the hypothesized structural model fit the data. The fit indices were acceptable: GFI = 0.916, RMSEA = 0.035, SRMR = 0.050, and Hoelter's CN = 238. After deleting three non-significant paths, the revised structural model showed significant improvement in goodness of fit. Multicultural teaching knowledgehad a direct positive effect on developmentally appropriate beliefs(β = 0.189; $p < 0.05$) and a direct negative effect on developmentally inappropriate practices(β = -0.142; $p < 0.05$).Multicultural teaching relationshipshad a direct positive effect on developmentally appropriate practices(β = 0.194; $p < 0.05$).

IV. DISCUSSION

4.1 Model of Multicultural Teaching Competency and DAP

A model of multicultural teaching competenceas a predictor of developmentally appropriate beliefs and practiceswas confirmed in the present study.Structural equation modeling showed that two of the factors of the MTCS-Hong Kong version, namely multicultural teaching knowledge and multicultural teaching relationships, were significant predictors of DAP. One interesting finding was that the item "I often promote diversity by the behaviors I exhibit" [28]was found to load on the Multicultural Teaching Skills scale in other research[43]but loaded on the Multicultural Teaching Knowledge subscale in the current sample. This accidental finding suggests that teachers' modeling reflects both knowledge and skills related to multi-culturalism, and as such may be important to study in the future.

Another interesting finding was that the items "particular teaching strategies" and "community resources" for ethnic minoritieswere grouped together on the Multicultural Teaching Knowledge subscale which was not happened in the original version, reflecting that teachers may view community resources as necessary for teaching classes of diverse students. In sum, multicultural teaching knowledge appears to encourage teachers' developmentally appropriate beliefs anddiscourage their developmentally inappropriate practices. A second factor, Multicultural Teaching Relationships, was further confirmed in the present study. This factor is important not only for assessing multicultural teaching competence but also as an influence on developmentally appropriate practices.

Multicultural teaching knowledgehad a direct positive effect on developmentally appropriate beliefsand practices and a direct negative effect on developmentally inappropriate practices. Multicultural teaching relationships had a direct positive effect on developmentally appropriate practicesandbeliefs, and a direct negative effect on developmentally inappropriate beliefs, such as beliefs about rote counting, whole-class and teacher-directed instruction, practicing handwriting on lines, and sitting and listening for long periods of time. Interestingly, themulticultural teaching knowledge subscale of the MTCS-Hong Kong version negatively predicted some developmentally inappropriate practices but not others. Specifically, there was no association between multicultural knowledge and the developmentally inappropriate practices of regularly using punishments and/or reprimands when children are not participating, using only one approach for reading and writing instruction, and instructing students in letter and word recognition.

4.2 Embedded Multicultural Training in Early Childhood Education Programs

There has been considerable emphasis on the need for an explicit focus on cultural responsiveness in teacher training[12, 14]. Embedding multicultural teaching as a core course in Early Childhood Education programs for both in-service and pre-service teachers, rather than treating the course as an elective,is suggested and emergent.The model identified in the current study can help identify issues that need to be addressed as part of this training. The Multicultural Teaching Competency Scale (MTCS) may be helpful in identifying the effectiveness of this training.

CONCLUSIONS

Given the increased focus on multicultural teaching in early childhood education, it is ever more important to develop a new conceptual model of teaching beliefs and practices in culturally diverse classrooms. As hypothesized,structural equation modeling showed that teachers with higher multicultural competencywere more likely to show developmentally appropriate beliefs and practices and less likely to engage in developmentally inappropriate practices. It is recommended that multicultural education be embedded in early childhood education programs for both in-service and pre-service teachers. Future research can focus on teachers' general attitudes about multiculturalism, using implicit attitude tests; the school environment as an influence on multicultural teaching; and the reciprocal influences between multicultural competency and DAP.

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