Journal of Family Strengths

Volume 14 | Issue 1 Article 22

12-31-2014

Assessing the Cross-Cultural Reliability and Validity of a Measure of Parent Satisfaction Among Head Start Caregivers

Anne E. Day Leong
Boston College, anneday163@gmail.com

Recommended Citation
Day Leong, Anne E. (2014) "Assessing the Cross-Cultural Reliability and Validity of a Measure of Parent Satisfaction Among Head Start Caregivers," *Journal of Family Strengths*: Vol. 14: Iss. 1, Article 22.
DOI: https://doi.org/10.58464/2168-670X.1254
Available at: https://digitalcommons.library.tmc.edu/jfs/vol14/iss1/22

Assessing the Cross-Cultural Reliability and Validity of a Measure of Parent Satisfaction Among Head Start Caregivers

Acknowledgements

The author would like to gratefully acknowledge the support and assistance of Dr Linnie Green Wright in completing this publication.

Introduction

Caregiver satisfaction in their child's education is a largely underexplored niche in the research on how families relate to their child's schooling. Of the very limited research that does exist on caregiver satisfaction in education, the overwhelming majority has focused on primarily female, U.S. born caregivers. Research in this relatively homogenous group of caregivers has indicated a positive relationship between caregiver satisfaction and caregiver involvement in their child's education (McWayne, Campos, & Owsianik, 2008). Certainly, there is a logical connection between caregiver satisfaction in education and a myriad of outcomes for schools and children; however those potential impacts remain unexplored in the absence of accurate measurement. In an effort to begin to accurately measure satisfaction in education across diverse communities, this study aims to assess the reliability and validity of the only existing tool exclusively dedicated to measuring caregiver satisfaction in educational experiences among Head Start preschool families. To ensure this study includes the myriad of family structures found in Head Start, the study intentionally includes all child caregivers rather than limiting the sample to parents. Thus aunts, uncles, grandparents, older siblings, etc. are included in the term "caregiver."

Although the body of literature on caregiver satisfaction remains extremely limited, the body of literature on caregiver involvement is burgeoning. Caregiver involvement in their child's education is a vital factor in improving outcomes for youth and increasing academic achievement (Arnold, Zeljo, & Doctoroff, 2008; Barnard, 2004; Miedel & Reynolds, 1999). Though some research does exist in this area, it is extremely limited and fails to explore a myriad of communities. These relationships have not been adequately explored in racially and ethnically diverse populations or in male caregivers, and very little literature exists on caregiver satisfaction among immigrant caregivers (McWayne et al., 2008). Much of our understanding of caregiver involvement in their child's education is based on measurements developed with linguistically and culturally heterogeneous groups of predominantly female caregivers (Hall & Schaverien, 2001; McBride, Bae & Wright, 2002). Cultural influences on parenting behaviors often create subtle differences in the way parents interact with their child's education (Lee, 2005; López, 2001: Tamis-Lemonda, Kahana-Kalman & Yoshikawa, 2009; McWayne, Melzi, Schick, Kennedy, & Mundt, 2013). These differences have left the research community struggling to operationalize satisfaction or involvement in education across populations. Without a strong definition of satisfaction or involvement in education that can span culture, ethnicity, and gender, developing culturally competent measures of these concepts is exceptionally challenging. Although there has been an abundance of literature on the issue of caregiver involvement in education, there does not appear to be a similar level of interest in caregiver satisfaction in education.

The Parent Satisfaction in Educational Experiences Scale (PSEE) (Fantuzzo, Perry & Childs, 2006) is to date the only measure of caregiver satisfaction designed by and for Head Start families. The PSEE was developed in collaboration with urban schools and families and later validated on a sample of urban Head Start parents. This 12-question measure examines caregiver

satisfaction with their child's school based on three submeasures that evaluate satisfaction in teacher contact, satisfaction in classroom contact, and satisfaction in school contact. Despite the accomplishments in developing the PSEE, the authors noted some limitations and called for further research. The PSEE was developed with a sample of predominantly Black and Caucasian participants and has, to date, not been evaluated with two of the largest and fasted growing minority groups in the U.S.- Asians and Latinos (Fantuzzo et al., 2006; U.S. Census, 2013). The initial validation work of the PSEE also lacked a sufficient sample of men to validate the measure. The sample of parents involved with the development of the PSEE was 93.6% female, 59.5% African American and 26.3% Caucasian (Fantuzzo et al., 2006). The absence of sufficient representation of certain racial and ethnic groups and the predominance of female caregivers make the initial validation sample less useful for many communities. Given the high proportion of immigrants in low-income communities served by Head Start, the absence of any previous validation work done of the PSEE in diverse populations is a major concern in the use of the scale. Similarly, given Head Start's push toward increasing outreach to fathers, the nearly 94% female sample used to validate the PSEE leaves many unanswered questions about its validity in a changing Head Start community.

Parent Satisfaction and Involvement in Head Start Preschools

The Head Start preschool program provides a unique opportunity to assess the impact of caregiver satisfaction in education due in part to the two-generation approach of the Head Start system. Head Start preschools provide traditional school services for children enrolled in the schools while also providing social services for parents and caregivers, as well as mental and physical health care for families (McWayne, Green & Cheung, 2010). This unique, family-based education model creates more points of contact between families and schools, giving caregivers more experiences with the school to assess their levels of satisfaction.

The close correlations between caregiver satisfaction in education and caregiver involvement in education highlights the value of exploring both constructs in diverse communities. Previous research on parent involvement in traditional models of education has highlighted that low-income parents tend not to engage in education in many of the ways that research has traditionally defined and measured involvement, lending to the perception that low-income parents are less involved in education (Arnold et al., 2008). Although it is possible that low-income parents engage in education in ways that the research community is not yet measuring, the current assumption that low-income parents are less engaged than high or middle income parents brings up new questions regarding the long term impacts of low-income preschool programs such as Head Start. Preschool programs operating on a two generation education model similar to Head Start have been correlated with increased High School completing and positive long-term educational achievement in low-income students (Reynold et al., 2011; Schweinhart, 1993). Such positive academic achievements in low-income students would seem to contradict the assumption

that low-income parents are less involved in their child's education. Even as early as preschool, parent involvement in a child's education is related to academic achievement later on. Low-income parents that are highly involved in their child's education in preschool and kindergarten have children with higher preliteracy skills in childhood, higher reading achievement rates in adolescence, and lower grade retention rates at age 14 (Arnold et al., 2008; Miedel & Reynolds, 1999). Similarly, parent involvement in their child's grade school education is positively correlated with children's subsequent graduation from high school (Barnard, 2004). Such discrepancies between the perceived levels of involvement and outcomes for youth highlight the needs for accurate measurement.

Caregiver satisfaction, as an independent construct, has had very little attention in the research literature. The overwhelming majority of research on caregiver satisfaction has focused on the relationship between satisfaction and involvement. Some work has been done around the topic of caregiver satisfaction in services for children with special needs (see, e.g. Rao, 2000; Park & Turnbull, 2001; Summers, Hoffman, Marquis, Turnbull, & Poston, 2005). Much of the literature around satisfaction in caregivers with children with special needs has reinforced the connection between satisfaction and involvement (Laws & Millward, 2001). Furthermore, qualitative studies have suggested parents that have very low levels of satisfaction in services for their child show higher levels of stress, may feel less inclined to participate in decision making around services for their child and may even be inclined to drop out of services all together (Rao, 2000; Soodak & Ervin, 2000). In the existing literature around caregiver satisfaction, it is plain to see the value in assessing and responding to levels of satisfaction to prevent negative outcomes for families. Although this body of literature has grown around services for children with special needs, it is possible similar lessons extend to early childhood education.

Measuring and Defining Parent Satisfaction and Involvement

Many challenges arise when measuring parenting experiences in an array of communities and cultures. Culture and gender norms often dictate parenting roles, such as how to engage in a child's education (López, 2001: Campos, 2008; Lee, 2005; Tamis-Lemonda et al., 2009). With such a varied understanding of who should be involved in a child's education and how, measuring parental involvement across cultures in any standardized, generalizable way is extremely challenging. Epstein (1987) theorized a 6-point definition of parental involvement in education including: parenting behaviors, communicating between home and school, volunteering in the school, learning at home, decision-making, and collaborating with the community. Although the Epstein (1987) theory provides an often-cited framework for understanding parent involvement in education, the field still struggles to create a concrete, measurable definition of involvement.

Similar to involvement, caregiver satisfaction in education has struggled to develop a concrete, operationalization of what it means to be satisfied (Schwartz & Baer, 1991). McNaughton (1994) conducted an analysis of tools used to measure parent satisfaction in any form of education up until the mid-1990's. McNaughton (1994) succinctly laid out a history of the four primary reasons to

measure and value caregiver satisfaction in education. McNaughton (1994) points out that (1) parents and caregivers retain control and responsibility for their child's development and wellbeing thus caregiver feedback should retain primacy in program evaluation (Bernheimer, Gallimore, & Weisner, 1990; Guralnick, 1989, as cited in McNaughton, 1994), (2) caregiver satisfaction and dissatisfaction can be used to shape and improve services (Upshir, 1991; Wolery, 1987, as cited in McNaughton, 1994), (3) caregiver participation in their child's education is likely increased by including caregiver evaluations of the schools (Baily, 1987; Conn-Powers, Ross-Alle & Holburn, 1990, as cited in McNaughton 1994) and (4) consumer satisfaction data can be a useful tool in securing funding (Scheirer, 1978, as cited in McNaughton, 1994). The logic in McNaughton's review of satisfaction literature is as applicable today as it was twenty years ago, although it most certainly represents an area of knowledge that has been overlooked for two decades.

Despite the pragmatic uses and significance of caregiver satisfaction in caregiver involvement, measuring caregiver satisfaction has historically been problematic. Prior to 1994, most measures of caregiver satisfaction had not yet addressed concerns around accurately measuring caregiver satisfaction in diverse communities. The majority of measures used to assess satisfaction were not validated, not standardized and were largely unreported in the methodology in the literature (McNaughton, 1994). To date, very little research exists on caregiver satisfaction in education. The topic of caregiver satisfaction in early education remains particularly unexplored. In the absence of adequate measurement tools around the topic of caregiver satisfaction in early education, the potential implications of the construct remain unknown.

In response to the need to develop an established measure of caregiver satisfaction, Fantuzzo et al. (2006) developed the Parent Satisfaction in Educational Experiences Scale. The measure presented an opportunity for the research community to begin to understand the relationship between satisfaction and any number of possible constructs as well as an opportunity for service providers to assess their program. The PSEE was developed with input from parents and teachers in an urban school setting. The measure is brief, easy to read, and straight forward enough for schools to use to gain feedback from families and facilitate communication to improve the school community (Fantuzzo et al., 2006).

Parent Satisfaction and Involvement in Male Caregivers and Immigrant Communities

Although there is a burgeoning body of literature on parent involvement in children's education, much of the literature is based primarily on female caregiver involvement. Father involvement in a child's education in both Head Start schools and traditional models of education has historically been poorly defined and poorly measured, particularly when measured with diverse populations (Campos, 2008). Traditional measures of father involvement in a child's education are limited to essentially attendance records; asking if fathers are present or not present during education related events (Campos, 2008). More comprehensive

measures of father involvement have been largely based in notions of fatherhood from middle and upper middle class Caucasian families. Research has demonstrated that culture influences parental gender roles and expectations in families (Campos, 2008; Tamis-Lemonda et al., 2009). Research tools developed by and for higher-income Caucasian families may fail to capture culturally nuanced differences in parenting behaviors, leading to the perception of many low-income, ethnic minority fathers as inadequately involved in their child's education. More culturally responsive research has indicated many African American fathers show nurturing fathering behaviors with their children and, when asked, express that they wish they could spend more time with their children (Campos, 2008).

Similarly, research on Latino father involvement has neglected many cultural markers of masculinity in Latino communities. Many constructs of fathering behaviors in Latino men go underrepresented in the literature, particularly pertaining to children's education. However, Latino men have been shown to spend more time alone with their young children, eat more meals with their young children and be more involved in pre and postnatal medical care than Dominican or African American fathers (Tamis-Lemonda et al., 2009).

Cultural barriers to measuring and understanding caregiver satisfaction and involvement pose challenges in the myriad of cultural communities within the U.S., but particularly large challenges exist in measuring parenting behaviors in ethnic minority and immigrant communities. Very few studies examining parent satisfaction in the U.S. have included immigrant parents (McWayne et al., 2008). Research does exist examining immigrant parent involvement in education and has largely concluded parents from diverse communities engage and interact with their child's education in unique and varied ways in both Head Start schools and traditional models of education (Lee, 2005; Campos, 2008; McWayne et al., 2008; McWayne et al., 2013). Challenges arise when the cultural framework of a school are incongruent with the cultural framework of a family and parenting styles, often marginalizing or disengaging minority culture families (Hill, 2010).

Combating a sense of marginalization in cultural minority families requires bi-directional conversations with families. Sumsion and Goodfellow (2006) analyzed past attempts at researching and adjusting public services in early childhood education and care in Australia to improve quality through a supply and demand model. The results showed a drastic trend toward supply side adjustments with little attention toward demand side input. In this economic-style, supply and demand model, it can certainly be argued that Head Start has also historically fallen into the habit of largely supply side research, adjustment and action with minimal demand side input. In other words, research and policy in Head Start has been largely conducted from the theoretical model of "experts" and "clients." In this model, experts conduct research and create policy initiatives while clients simply do as they are instructed. Input from clients is minimal and seldom asks questions regarding the client's perspectives or preferences. The vast absence of literature regarding satisfaction in Head Start services is a testament to the minimal research conducted from community-based perspectives of Head Start families. In the absence of caregiver input, Head Start

preschools are unable to appropriately adjust to their unique communities and may disengage and marginalize cultural minority families.

This study seeks to evaluate the validity of the PSEE in a linguistically, culturally and gender diverse Head Start community. The PSEE represents a unique opportunity for Head Start that is not currently reaching its full potential. As Fantuzzo et al. (2006) noted, "School administrators have an opportunity to create bi-directional communication to foster genuine parent involvement. To realize this opportunity, administrators will need culturally sensitive and practical means to determine parental satisfaction with various aspects of their school contact." (p. 144). To assess the applicability of the PSEE in diverse communities, this proposed project seeks to assess the following two questions through quantitative evaluation: 1) Does the PSEE maintain consistent reliability and validity in both men and women? 2) Does the PSEE maintain consistent reliability and validity in both U.S.-born and immigrant families?

Methods

Procedure

As this is a pilot study, the sample was relatively small but diverse. The sample was taken in the fall of 2013 from an urban Head Start preschool serving children aged three to five. The sampling method was developed with the assistance of the Head Start staff and the Head Start's Parent Advisory Committee. All Head Start programs have, to some degree, a committee of parents that advise the school administration on everything from school curriculum to hiring and firing staff. In an effort to better partner with the school and draw upon the expertise of the families and staff, the research team met with the Parent Advisory Committee as well as school staff prior to administering any measures with the school's families. As advised by the families and staff, questionnaires were administered to caregivers as they arrived at the school to drop their child off in the morning or as they arrived at school to pick their child up in the evening. Records were maintained to ensure each caregiver completed each survey only once; however, children with multiple caregivers were permitted to allow each caregiver to complete the surveys. Teachers were on hand to care for children while caregivers completed the questionnaires and caregivers were thanked for their time with a $25 gift card to a local store.

Paper surveys were administered to caregivers in the Head Start preschool situated in an immigrant community. To accommodate caregivers with limited English proficiency, research documents were translated by a professional translation service into the 5 predominant languages at the school: English, Spanish, Vietnamese, Haitian Creole and Cape Verdean Creole. All documents contained written instructions to allow research staff to administer surveys to caregivers regardless of any language barriers between families and the research team.

Sample

A total of 141 Head Start caregivers agreed to participate in the study. The Head Start was situated in an ethnically diverse community and serves a large number of recently immigrated families from a wide range of countries. All information collected in the study was self-reported, including demographic information. The sample is a convenience sample taken from large Head Start preschool engaged in an ongoing partnership with the research team. Slightly less than half of the sample participants (47.9%) were born in the United States and 52.1% were born outside of the United States. The majority were women; however, the study was able to survey slightly more men than is typical in Head Start samples. In the sample, 22.7% identified as male and 77.3% identified as female. Ethnically, the majority of participants identified as non-Hispanic Black (43%) or Black Hispanic (12%). In total, the 141 participants included 121 parents, 6 grandparents, 10 aunts or uncles, 1 caregiver identified as "Other" and 3 caregivers did not identify their relation to their child (Table 1).

Table 1. Sample Demographics

Gender		**Race**		**Place of Birth**		**Birth Countries among Foreign Born**	
22.7%	Male	43%	Non-Hispanic	47.9%	Born in U.S.	13%	Haiti
77.3%	Female	12%	Black			8%	Cape Verde
		10.5%	Black Hispanic		Born Outside U.S.	7%	Dominican Republic
		9%	White Hispanic	52.1%		6%	Vietnam
			Asian or Pacific Islander			4%	Jamaica
		8%	Hispanic			3%	Puerto Rico
		7%	Non-Hispanic white			1.5%	Barbados
		1%	Biracial			1.5%	Dominca
		9.5%	Other			1.5%	Mexico
						1.5%	Guatemala
						1%	Nigeria
						1%	Trinidad
						1%	Venezuela
						1%	Sierra Leone
						1%	

Measure

The PSEE was developed by and for urban Head Start families. This questionnaire represents the only instrument specifically designed to measure levels of caregiver satisfaction in Head Start's unique model of education (Fantuzzo et al., 2006). The PSEE includes 12 questions describing three areas

of contact with the school (i.e. teacher, administrator, and classroom). Each item on the PSEE is rated on a 4 point-Likert scale ranging from *very satisfied* to *very dissatisfied*, indicating the caregiver's level of satisfaction with each area of school contact.

The calculation procedure of the PSEE focuses on the use of the three submeasures within the overall PSEE. The PSEE is a relatively new measure and the calculation procedures are still in the process of fine-tuning to ensure the measure is as accurate as possible. At the time of data collection and analysis, calculating the scores of the PSEE to create an evaluation of each area of satisfaction relies on the summation of each of the question in the submeasures to create three sum scores. For example, questions number 1, 2, 4, and 5 are summed to give a score that indicated the level of satisfaction with classroom contact. Sum scores can be standardized to allow comparison between each submeasure. The PSEE does not emphasize utilizing the entire measure as a 12-item measure of general satisfaction; rather, the measure provides an emphasis on the use of the three submeasures (Fantuzzo et al., 2006). Given the focus on the submeasures in scoring and interpreting the PSEE, this analysis will also provide equal focus on evaluating the submeasures in the PSEE.

Previous detailed validation work on the PSEE is limited to the development work done by Fantuzzo et al. (2006). In the development of the PSEE, factor analysis focused on a three-factor, varimax solution, which produced adequate internal consistency. In the three factor solution, alpha levels remained above α=.70 for each of the measures submeasures: teacher contact (α=.82), classroom contact (α=.82) and school contact (α=.75) (Fantuzzo et al., 2006).

Analysis

Reliability of the PSEE was assessed across 4 subsamples using STATA 12. Initial analysis examined Cronbach's Alpha levels and item rest statistics across subsamples drawn from the original sample. The original sample was broken into a male-female gender dichotomy, then into a U.S Born-Foreign Born birthplace dichotomy. Dichotomies were compared to one another on Cronbach's Alpha levels and item rest statistics for inconsistencies indicative of threats to cross cultural reliability. Later, all 4 subsamples of U.S. Born Female, Foreign Born Female, U.S. Born Male, and Foreign Born Male were compared on Cronbach's Alpha levels and item rest statistics for inconsistencies. Participants that were members of the same family were analyzed separately rather than in a paired-analysis for two reasons: (1) the child or family is not the unit of measurement, rather the individual caregiver is the unit of measurement and (2) it cannot be assumed that caregivers agree with one another. Certainly, it is likely that caregivers may influence one another, but that influence would like be on the caregiver's level of satisfaction not on the reliability and validity of the measurement of satisfaction.

The PSEE was then assessed using a confirmatory factor analysis across the entire sample. Due to the small sample size, an exploratory factor analysis was not conducted on each subsample for comparison; rather, a confirmatory

factor analysis was conducted on the entire 141-person sample to assess the proposed 3-factor solution. As noted earlier, the original validation of the PSEE lacked a sufficient sample of male Latino and Asian participants. Through attempting a confirmatory factor analysis on this more diverse sample, we seek to evaluate the proposed 3-factor solution in a more diverse sample.

Results

Cross-Gender Comparison

Results of the cross-gender comparison show the overall PSEE maintains an overall acceptable Cronbach's Alpha level above .70 (Tran, 2009). The acceptable overall alpha levels point toward a strong cross-gender reliability of the PSEE, however the item-rest correlations point toward inconsistencies within the measure. Given the emphasis on the three submeasures in the PSEE, inconsistencies within the measure are reason for concern. These varying scores among the item-rest correlations indicate individual questions are not "performing" similarly across groups. Although those questions may even out in the end of the measure to give the measure an acceptable Cronbach's Alpha score, the variability within the measure indicates when each question is examined individually, it may not hold similar levels of reliability across groups

Table 2. Cronbach's Alpha & Item-Rest Correlation for Gender Comparison

	Male	Female
Classroom Planning	.232	.570
Volunteering in Class	.486	.443
Phone Contact with Teacher	.665	.639
Support for Parent Involvement	.663	.731
Participation in Decision Making	.756	.781
Notes from Teacher	.611	.707
Contact with Other Parents	.737	.682
Parent Workshops	.568	.703
Contact with Teacher About Child Behavior	.537	.748
Contact with Administration	.608	.594
School Work Sent Home	.556	.690
Support for Culture or Language	.606	.738
Alpha	.882	.920

With the variability across each question shown in the item-rest correlation, an examination of the submeasure Cronbach's Alpha levels is necessary to assess if the submeasures maintain reliability across groups. Each

submeasure in the PSEE relies on only four questions to assess each of the three constructs- teacher contact satisfaction, classroom contact satisfaction and school contact satisfaction. With such a small number of questions assessing each construct, variability on any one question can greatly affect the reliability of each submeasure. The submeasure Cronbach's Alpha scores are all notably lower than the overall Cronbach's Alpha level for the 12-item PSEE. All of the Cronbach's Alpha scores for the submeasures for both men and women remain above the .70 mark, indicating strong reliability, with the exception of the Cronbach's Alpha score for male caregiver's satisfaction in their classroom contact. The Cronbach's Alpha score for men assessing their level of satisfaction with classroom contact shows somewhat lower score of α=.670, meaning men's assessments of their satisfaction with their child's classroom shows weaker reliability (Tran, 2009).

Cross-Birthplace Comparison

Due to the constraints of the small sample size, cross-birthplace analysis can only be considered to be very early, exploratory analysis. The sample is too small to control for many, possibly significant variables such as the location of birth, the language the PSEE was completed in or the number of years in the U.S..

Examining this very preliminary analysis of the PSEE among participants born in the U.S. and participants born outside the U.S. shows similar concerns as those seen in the cross-gender analysis. The overall alpha levels of the PSEE for the groups born in the U.S. and the group born outside the U.S. remain at strong levels; however a significant amount of variability is seen in the item-rest correlations. Similar to the cross-gender analysis, the cross-birthplace analysis indicates some potential threats to the reliability of the PSEE across birth locations.

Table 3. Cronbach's Alpha & Item-Rest Correlation for Birthplace Comparison

	Born in U.S.	Born Outside U.S.
Classroom Planning	.429	.552
Volunteering in Class	.432	.478
Phone Contact with Teacher	.700	.615
Support for Parent Involvement	.687	.742
Participation in Decision Making	.742	.799
Notes from Teacher	.720	.681
Contact with Other Parents	.646	.734
Parent Workshops	.743	.638
Contact with Teacher About Child Behavior	.843	.623
Contact with Administration	.741	.490
School Work Sent Home	.531	.758
Support for Culture or Language	.818	.661
Alpha	.916	.913

The submeasures in the PSEE once again show slight threats to the reliability of the PSEE in the measure of satisfaction with classroom contact. All other submeasures in the PSEE show Cronbach's Alpha scores over .70 for both U.S. born families and families born outside the U.S. except for the submeasure on classroom contact. The Cronbach's Alpha score for individuals born inside the U.S. assessing their level of satisfaction in classroom contact falls slightly below an acceptable score of α=.70 and shows an alpha level of α=.668. The alpha levels of each submeasure drop to lower levels than were seen in the overall PSEE alpha scores, however, only the measure of classroom contact satisfaction for US born participants drops below α=.70 (Tran, 2009).

Cross-Birthplace and Gender Comparison

Dividing each subsample into further subsample allows us to narrow down which groups, specifically, show particular threats to the reliability of the PSEE. However, it should be noted that by dividing this already small sample into four subsamples, these analyses must be considered the most preliminary.

Much like the cross-gender and cross-birthplace comparisons, the cross-gender and birthplace comparison shows acceptable overall alpha levels but very high variability in the item-rest correlations. Variability in the item-rest correlations among the four subsamples seen in Table 4 is notably high, indicating individuals question in the PSEE "behave" differently in each subsample.

Table 4. Cronbach's Alpha & Item-Rest Correlation for Gender and Birthplace Comparison

	U.S. Born Male	U.S. Born Female	Born Outside U.S. Male	Born Outside U.S. Female
Classroom Planning	-.02	.56	.40	.57
Volunteering in Class	.57	.41	.45	.47
Phone Contact with Teacher	.67	.71	.68	.58
Support for Parent Involvement	.75	.72	.70	.74
Participation in Decision Making	.33	.78	.84	.77
Notes from Teacher	.80	.74	.56	.71
Contact with Other Parents	.51	.66	.81	.70
Parent Workshops	.26	.85	.77	.62
Contact with Teacher About Child Behavior	.76	.86	.54	.68
Contact with Administration	.58	.78	.55	.49
School Work Sent Home	.37	.59	.73	.76
Support for Culture or Language	.67	.84	.57	.68
Alpha	.832	.904	.900	.913

Based on the result of the previous cross-gender and cross-birthplace analysis, it is expected to see the lower Cronbach's Alpha level of the assessment of satisfaction with classroom contact among U.S. born males of α=.402. This score represents the lowest Cronbach's Alpha level found in this cross-gender, cross-birthplace analysis and certainly indicates an area for further research. These low alpha scores indicates the PSEE measure of satisfaction in school contact does not have a strong reliability among U.S. born males in this sample and may produce varying results.

Confirmatory Analysis of the 3-Factor Structure in The PSEE

Concerns over the Cronbach's alpha levels raise question about the 3-factor structure proposed for the PSEE. Given the discrepancies between the Fantuzzo et al., (2006) proposed 3-factor solution within the PSEE and the outcomes of the exploratory Cronbach's Alpha analysis in this more diverse sample, a confirmatory factor analysis was conducted to attempt to evaluate the fit of a 3-factor solution. The sample is too small to accurately conduct a confirmatory factor analysis when the sample is split into subgroups, thus one confirmatory analysis was conducted on this group as whole. This group represents a more diverse sample than that seen in Fantuzzo et al. (2006) sample and can shed light on how well the 3-factor solution fits in diverse communities. As seen in

Table 5, the three-factor solution did not fit this more diverse sample. These results indicate the proposed structure of the PSEE does not fit when the PSEE was administered to this diverse sample and proposes there may be threats to the validity of the PSEE in diverse populations.

Table 5. Goodness of Fit Statistics for 3-Factor Solution of the PSEE

chi2_ms(51)	187.41
p > chi2	0.000
chi2_bs(66)	933.255
p > chi2	0.000
RMSEA	0.146
AIC	266.391
BIC	2744.006
CFI	0.813
TLI	0.796
SRMR	0.066

Discussion

The Head Start preschool program has historically been a program designed to be an inclusive, engaging two-generational approach to early education (McWayne et al., 2010). As Head Start becomes an increasingly diverse educational system, maintaining a culturally sensitive environment requires Head Start to establish open communicating between schools and families. Assessing caregiver satisfaction in Head Start services provides an opportunity to engage caregivers in a two-way dialogue, increasing involvement and potentially shaping services.

Prior research on caregivers in Head Start has largely focused on caregiver involvement with minimal attention toward the highly correlated construct of caregiver satisfaction (Fantuzzo et al., 2006). In response to the need for accurate and organized assessment of satisfaction in Head Start families, Fantuzzo et al. (2006) created the PSEE to assess caregiver satisfaction in education specifically for Head Start families. Although the PSEE provided an opportunity for researchers and Head Start schools to assess caregiver satisfaction in Head Start families, the initial validation work done on the PSEE did not include immigrant families or a sufficient number of Asian families, Latino families or male caregivers.

This paper provides a preliminary exploration of the PSEE across a male and female sample as well as a U.S. born and non-U.S. born Head Start families. Results indicate there may be threats to the cross-cultural reliability and validity of the PSEE, particularly among U.S. born males. Results show Cronbach's alpha levels fall below strong score in the submeasure of satisfaction in classroom contact for the overall group of U.S.-born participants, for the overall group of male participants and for the small group of U.S.-born male participants. Item-rest correlations also show a significant variability between the U.S.-born group and the immigrant group, as well as showing significant variability between the male and female group. The failure to fit the proposed 3-factor solution to this diverse sample also suggests challenges to the submeasures assessing satisfaction with teacher, classroom, and schools embedded within the PSEE. Challenges to the validation of the submeasures in the PSEE are particularly troublesome given the PSEE's scoring procedure and emphasis on the submeasures embedded in the PSEE.

It should be noted that this exploratory analysis was conducted on a small sample. In particular, the sample that displayed the lowest reliability scores, U.S. born men, is a very small sample of 11 participants. This small sample cannot lead to any generalizable results about the use of the PSEE in U.S. born men. However, the concerning results of this analysis in this small sample of U.S. born men does highlight the need for further exploration into the use of the PSEE in U.S. born men before the measure can be assumed to be valid and reliable in the population.

Although this is only an exploratory analysis, variations across the submeasure's Cronbach's alpha scores as well as variations in the item-rest correlations and the challenges in fitting a 3-factor solution within this sample provide reason to believe the PSEE may not maintain reliability and validity across genders and/or birthplace. The large levels of variability within the measure, coupled with the acceptable overall Cronbach's alpha scores for the PSEE and the challenges in the fit of the three-factor model suggest the PSEE may not measure the three defined concepts it purports to measure. Overall, the PSEE does appear to measure some concept or concepts related to satisfaction, however, the three-factor model measuring teacher, classroom and school satisfaction does not appear to maintain reliability and validity in a cross-gender, cross-birthplace sample.

This exploration suggests current research on caregiver satisfaction in Head Start using the PSEE in limited in its generalizability for U.S. Born fathers, uncles, grandfathers, etc. Cultural norms impact how families interact with their school and almost certainly impact how families feel about their child's school (López, 2001: Campos, 2008; Tamis-Lemonda et al., 2009). Such cultural norms create challenges in defining and measuring satisfaction. Epstein (1987) established an often-cited framework for understanding the concept of parent involvement in education, but a similar framework does not currently exist for understanding the concept of satisfaction in education.

Historically, measuring satisfaction in education has not relied on validated, standardized tools of measurement. Satisfaction has been a concepts often

reported in the literature as a side note with no explanation for how the concept was measured (McNaughton, 1994). In the absence of a cross-culturally validated, standardized measure of satisfaction, the potential relationship between caregiver satisfaction and other, unidentified outcomes for children will go unexplored in diverse communities. With the recent push in Head Start to reach out to male caregivers in their community, the need to validate the PSEE and begin to understand its relation to involvement and other potential outcomes is even more urgent (Hall, 2008). Little can be known about the implications of caregiver satisfaction in education without properly validating a measure with a representative, diverse sample of families. The PSEE is a potentially valuable tool for creating bi-directional communication between families and the Head Start school system and warrants further exploration to strengthen its reliability and validity across cultures.

Limitations and Future Directions

The limited sample of this project lends to the need for future examination of the PSEE in a larger sample. The PSEE has taken great strides in measuring and valuing feedback from Head Start families however; the predominantly female, English only, predominantly Black and Caucasian sample used to validate the PSEE is not representative of the changing face of Head Start families. The limited sample of this analysis did not provide the opportunity to validate the PSEE in a Spanish only population, or to complete a factor analysis on the PSEE in each of the subgroups. As such, this project serves as a pilot to later investigations of the reliability and validity of the PSEE in a larger sample with a focus on Spanish speaking families and male caregivers. Once the PSEE has been fully validated, it has the potential to be the only measure of caregiver satisfaction developed by and for the Head Start community and can play a vital role creating a responsive and supportive environment for their children's first school experience.

Psychometric work in the area of measure and defining satisfaction in education is an area of research that warrants attention. The measurement of satisfaction is education has thus far remained largely unstandardized and unreliable. Caregiver satisfaction in education remains an unexplored and poorly understood construct. In the absence of psychometric work to solidify the measurement of satisfaction in education, the importance of this topic will remain unknown.

It should also be noted that this line of research should be explored separately in Head Start preschools and the majority of public schools. Head Start preschools operate on a two-generation approach to education, which differs from many, child-only focused schools. Although there are certainly lessons to be learned from Head Start that can inform child-only focused schools, any lessons must be adequately explored before conclusions can be drawn due to the significant differences between the two models of education.

References

Arnold, D., Zeljo, A., Doctoroff, G., & Ortiz, C. (2008). Parent involvement in preschool: Predictors and the relation of involvement to preliteracy development. *School Psychology Review*, *37*(1), 74-90.

Aspiazu, G. G., Bauer S. C., & Spillett, M. D. (1998). Improving the academic performance of Hispanic youth: A community education Model, *Bilingual Research Journal*, *22*(2-4), 127-147. doi:10.1080/15235882.1998.10162719

Barnard, W. B. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review*, *26*(1), 39-62.

Campos, R. (2008). Considerations for studying father involvement in early childhood among Latino families. *Hispanic Journal of Behavioral Sciences*, *30*(2), 133-160. doi:10.1177/0739986308316658

Epstein, J. L. (1987). Parent involvement: What research says to administrators. *Education and Urban Society, 19*(2), 119-136.

Fantuzzo, J., Perry, M. A., & Childs, S. (2006). Parent satisfaction with educational experiences scale: A multivariate examination of parent satisfaction with early childhood education programs. *Early Childhood Research Quarterly*, *21*(2), 142-152. doi:10.1016/j.ecresq.2006.04.002

Hall, R. L., & Schaverien, L. (2001). Families' engagement with young children's science and technology learning at home. *Science Education*, *85*(4), 454–481. doi:10.1002/sce.1018

Hall, J. M. (2008). Reauthorizing Head Start father involvement. *Children and Families*, 12–14. Retrieved from http://www.tapartnership.org/docs/callNotes/20110811_fatherhoodCallFatherInvolvement.pdf

Hill, N. (2010). Culturally-Based Worldviews, Family processes, and family-school interactions. In S. L. Christenson & A. L. Reschly (Eds.), *The Handbook of family-school partnerships* (pp. 101–127). New York, NY: Routledge

Kohl, G., Lengua, L., & McMahon, R. (2000). Parent involvement in school conceptualizing multiple dimensions and their relations with family demographic risk factors. *Journal of School Psychology*, *38*(6), 501-523. doi:10.1016/S0022-4405(00)00050-9

Laws, G., & Millward, L. (2001). Predicting parents' satisfaction with the education of their child with Down's syndrome. *Educational Research*, *43*(2), 209–226. doi:10.1080/00131880110051173

Lee, S. (2005). Selective parent participation: Structural and cultural factors that influence school participation among Korean parents. *Equity & Excellence in Education, 38*(4), 299-308. doi:10.1080/10665680500299734

López, G. R. (2001). The value of hard work: Lessons on parent involvement from an (im)migrant household. *Harvard Education Review*, *71*(3), 416-438.

Mcbride, B. A., Bae, J., & Wright, M. S. (2002). An examination of family-school partnership initiatives in rural prekindergarten programs. *Early Education and Development, 13*(1), 37–41. doi:10.1207/s15566935eed1301_6

McNaughton, D. (1994). Measuring parent satisfaction with early childhood intervention programs: Current practice, problems, and future perspectives. *Topics in Early Childhood Special Education*, *14*(1), 26-48. doi:10.1177/027112149401400106

McWayne, C., Campos, R., & Owsianik, M. (2008). A multidimensional, multilevel examination of mother and father involvement among culturally diverse Head Start families. *Journal of School Psychology*, *46*(5), 551-573. doi:10.1016/j.jsp.2008.06.001

McWayne, C., Green, L. & Cheung, K. (2010). Head Start: A brief history of the largest federally-funded early childhood initiatives. In Clauss-Ehlers, C.S. (Ed). *Encyclopedia of Cross-Cultural School Psychology.* New York: Springer.

McWayne, C. M., Melzi, G., Schick, A. R., Kennedy, J. L., & Mundt, K. (2013). Defining family engagement among Latino Head Start parents: A mixed-methods measurement development study. *Early Childhood Research Quarterly*, *28*(3), 593–607. doi:10.1016/j.ecresq.2013.03.008

Miedel, W., T. & Reynolds, A. J. (1999). Parent involvement in early intervention for disadvantaged children: Does it matter? *Journal of School Psychology*, *37*(4), 379-402. doi:10.1016/S0022-4405(99)00023-0

Park, J., & Turnbull, A. P. (2001). Cross-cultural competency and special education: Perceptions and experiences of Korean parents of children with special needs. *Education and Training in Mental Retardation and Developmental Disabilities*, *36*(2), 133–147.

Rao, S. S. (2000). Perspectives of an African American mother on parent-professional relationships in special education. *Mental Retardation*, *38*(6), 475–488.

Reid, M. J., Webster-Stratton, C., & Beauchaine, T. P. (2001). Parent training in Head Start: A comparison of program response among African American, Asian American, Caucasian, and Hispanic mothers. *Prevention Science*, *2*(4), 209–227. doi:10.1023/A:1013618309070

Reynolds, A. J., Temple, J. A., White, B. A. B., Ou S., Robertson, D. L. (2011) Age 26 cost-benefit analysis of the Child-Parent Center Early Education Program. *Child Development, 82*(1) 379-404. doi:10.1111/j.1467-8624.2010.01563.x

Schwartz, I. S. & Baer, D. M. (1991). Social validity assessments: Is current practice state of the art? *Journal of Applied Behavior Analysis*, *2*(2), 189–204. doi:10.1901/jaba.1991.24-189

Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant Benefits: The High/Scope Perry Preschool Study Through Age 27.* (Monographs of the High/Scope Educational Research Foundation, 10). Ypsilanti, MI: High/Scope Press.

Soodak, L., & Erwin, E. J. (2000). Valued member or tolerated participant: Parents' experiences in inclusive early childhood settings. *Research and Practice for Persons with Severe Disabilities, 25*(1), 29–41. doi:10.2511/rpsd.25.1.29

Summers, J. A., Hoffman, L., Marquis, J., Turnbull, A., & Poston, D. (2005). Relationship between parent satisfaction regarding partnerships with professionals and age of child. *Topics in Early Childhood Special Education*, *25*(1), 48–58. doi:10.1177/02711214050250010501

Sumsion, J., & Goodfellow, J. (2006). Parents as consumers of early childhood education and care: The feasibility of demand-led improvements to quality. In D. King & G. Meagher (Eds.), *Paid care in Australia: Politics, profits, practices* (pp. 167–202). Australia: Sydney University Press.

Tamis-LeMonda, C., Kahana-Kalman, R., & Yoshikawa, H. (2009). Father involvement in immigrant and ethnically diverse families from prenatal period to the second year: Prediction and mediating mechanisms. *Sex Roles*, *60*(7-8), 496-509. doi:10.1007/s11199-009-9593-9

Tran, T. V. (2009). *Developing cross-cultural measurement*. New York, NY: Oxford University Press.

U.S. Census, (2013, June 13). Asians fastest-growing race or ethnic group in 2012, Census Bureau Reports. *Census Bureau Reports*. Retrieved from http://www.census.gov/newsroom/press-releases/2013/cb13-112.html

Waanders, C., Mendez, J. L., & Downer, J. T. (2007). Parent characteristics, economic stress and neighborhood context as predictors of parent involvement in preschool children's education. *Journal of School Psychology*, *45*(6), 619-636.