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Caregiver's Feeding Styles Questionnaire: Establishing Cutoff Points

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Abstract

Researchers use the Caregiver's Feeding Styles Questionnaire (CFSQ) to categorize parent feeding into authoritative, authoritarian, indulgent, and uninvolved styles. The CFSQ assesses self-reported feeding and classifies parents using median splits, which are used in a substantial body of parenting literature and allow for direct comparison across studies, on dimensions of demandingness and responsiveness. No national norms currently exist for the CFSQ. This paper establishes and recommends cutoff points most relevant for low-income, minority US samples researchers and clinicians can use to assign parents to feeding styles. Median scores for 5 studies are examined and the average across these studies reported.

Keywords

parent feeding; feeding styles; minorities; cutoff points

Introduction

The prevalence rates of overweight and obesity in young children continue to be higher among low-income minority families (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). The family home environment, including how parents feed their children, has been shown to be linked to the development of childhood obesity (Faith, Scranlon, Birch, Francis, & Sherry, 2004). The Caregiver's Feeding Styles Questionnaire (CFSQ; Hughes, Power, Fisher, Mueller, & Nicklas, 2005) was developed specifically for low-income minority parents, using both qualitative and quantitative methods, and has been used extensively with these populations in an effort to better understand childhood obesity (Fisher, Birch, Grusak, &

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Hughes, 2008; Hennessy, Hughes, Goldberg, Hyatt, & Economos, 2010; Hennessy, Hughes, Goldberg, Hyatt, & Economos, in press; Hoerr, Hughes, Fisher, Nicklas, Liu, & Shewchuk, 2009; Hughes et al., 2005; Hughes, Patrick, Power, Fisher, Anderson, & Nicklas 2007; Hughes et al., 2011; Hughes, Shewchuk, Baskin, Nicklas, & Qu, 2008; O'Connor et al., 2010; Papaioannou et al., 2011; Tovar et al., 2011). Designed to be consistent with a parenting style paradigm (Baumrind, 1971), two dimensions of feeding demandingness and responsiveness result in four feeding style typologies similar to Maccoby & Martin's (1983) general styles of parenting (authoritarian, authoritative, indulgent, and uninvolved).

Convergent validity on the CFSQ has been established through associations with other validated measures of parenting (Parenting Dimensions Inventory [PDI]; Power, 2002) and aspects of parental control in feeding (Child Feeding Questionnaire [CFQ]; Birch, Fisher, Grimm-Thomas, Markey, Sawyer, & Johnson, 2001). Parent-centered feeding was positively associated with restriction (CFQ), physical punishment, consequences, and scolding (PDI). Child-centered feeding was positively associated with monitoring (CFQ), organization, nurturance, and discipline (PDI), and negatively associated with inconsistency (PDI). Test-retest reliability, internal consistency, convergent validity, and predictive validity have been demonstrated (Hughes et al., 2005). Observational data with low-income families support the feeding style constructs (Hughes et al., 2011).

Studies using the CFSQ with ethnically diverse, low-income families have found that young children of indulgent parents were most likely to have a higher weight status (Hennessy et al., 2010; Hughes et al., 2005; Hughes et al., 2008). The indulgent and uninvolved feeding styles have been linked to less optimal child eating behaviors among diverse ethnic groups (Fisher et al., 2008; Hennessy et al., in press; Hoerr et al., 2009).

The aim of this brief report is to describe the cutoff points that were used to derive the four feeding styles from the CFSQ in five separate empirical studies. Currently no norms exist for the CFSQ for the United States or for international samples. These cutoff points will be a useful tool not only for researchers using the CFSQ with low-income samples in the United States but also for clinicians working with low-income parents around feeding. Without cutoff points, it is not possible to classify parents into the four feeding styles.

Methods

Measures

The feeding styles of the parents in the five studies described below were assessed using the Caregiver's Feeding Styles Questionnaire (CFSQ; Hughes et al., 2005). The CFSQ measures the overall feeding pattern of parents based on dimensions of demandingness and responsiveness. The two dimensions are derived through 7 child-centered and 12 parent-centered feeding directives measured on a 5-point Likert scale (ranging from *never* to *always*). Child-centered feeding directives are those that promote child autonomy (e.g., reasoning, complimenting, and helping the child to eat). Parent-centered feeding directives attempt to control children's eating through external pressure (e.g., demands, threats, and reward contingencies). Using median splits, a cross-classification of high and low scores on the two dimensions identifies four feeding styles: authoritative (high responsiveness, high demandingness), authoritarian (low responsiveness, high demandingness); indulgent (high responsiveness, low demandingness), and uninvolved (low responsiveness, low demandingness). The process of using median splits is based on a substantial body of research in the parenting literature (Maccoby & Martin, 1983) and allows for a direct comparison of results across different studies.

Five Low-Income Samples Using the CFSQ

Study 1—Head Start parents from the Houston metropolitan area (101 African American and 130 Hispanic) completed questionnaires regarding feeding and parenting of their children aged 3 to 5 (Hughes et al., 2005). Head Start is a federally funded, comprehensive preschool program in the United States with the overall goal of increasing school readiness in young children from low-income families. The goal of this study was to develop the CFSQ measure designed to assess styles of feeding in low-income parents.

Study 2—The second study (Hughes et al., 2008) extended the use of the CFSQ to include Head Start families from three ethnicities (African American, Hispanic, and White). Head Start parents of children aged 3 to 5 (metropolitan and rural) from Houston, Texas, and northeast Alabama participated in the study (309 African American, 209 Hispanic, and 200 White).

Study 3—The third study (Hennessy et al., 2010) further validated the CFSQ with older children (6-11 years old) from low-income rural families in the Appalachia, Central Valley, Mississippi River Delta, and Southeast regions of the United States. Families with elementary school aged children participated in the study (48 African American, 22 Hispanic, and 29 White).

Study 4—The fourth study (Hughes et al., 2011) was an observational study of Head Start families in Houston, Texas, with preschool aged children (3-5 years old) who were observed in their homes during three mealtimes (97 African American and 80 Hispanic). Further validation of the CFSQ was conducted using mixed methods (self-report and observation) from this sample (Hughes et al., 2011).

Study 5—The fifth study (Tovar et al., 2011) used the CFSQ as part of the Live Well study, an ongoing community-based participatory intervention aimed to prevent weight gain in new immigrant mothers from Haiti, Brazil, and Spanish-speaking Latin American countries (27 Haitian, 63 Brazilian, and 50 Latinas). Immigrant mothers ($n = 140$) from Somerville, Massachusetts, and the surrounding area with children ranging from 3- to 12-years-old were recruited for the first of two cohorts and completed questionnaires (6 with missing data on the CFSQ).

Results

All statistical analyses were run using Statistical Package for the Social Sciences (version 18.0; SPSS Inc., Chicago, IL, 2009). Using the CFSQ measure, parents were categorized into four feeding styles across the studies as follows: Study 1: authoritative, $n = 34$, authoritarian, $n = 84$, indulgent, $n = 80$, and uninvolved, $n = 33$; Study 2: authoritative, $n = 118$, authoritarian, $n = 219$, indulgent, $n = 240$, and uninvolved, $n = 141$; Study 3: authoritative, $n = 15$, authoritarian, $n = 26$, indulgent, $n = 37$, and uninvolved, $n = 21$; Study 4: authoritative, $n = 35$, authoritarian, $n = 55$, indulgent, $n = 51$, and uninvolved, $n = 36$; Study 5: authoritative, $n = 24$, authoritarian, $n = 42$, indulgent, $n = 43$, and uninvolved, $n = 25$. Median scores across the five studies for demandingness and responsiveness are listed in Table 1. Because the median and mean scores are very similar, we suggest using a cutoff point of 2.80 for the demandingness scale and 1.16 for the responsiveness scale when using the CFSQ with samples similar to those described here. Participants' scores are considered low if they are less than or equal to the cutoff points.

Discussion

Because national norms in the United States are currently unavailable for the CFSQ, the median cutoff points across these studies should be useful for researchers or practitioners who want to classify the feeding styles of low-income parents and/or compare across studies. Such cutoff scores have been used with other standardized questionnaires such as the Center for Epidemiologic Studies Depression Scale (CES-D) to identify depressive symptomology in the population (Nguyen, Kitner-Triolo, Evans, & Zonderman, 2004; Williams et al., 2007). Our cutoff points on the CFSQ would be preferable to using within-sample cutoff points for any particular study because our current cutoff points are based on over 1300 parents or caregivers. Cutoff points derived from small samples are likely to be unreliable.

Given that research presented here was conducted with low-income samples, these norms may not be appropriate for research with samples of different socioeconomic status (i.e., middle- and high-income). Future studies should investigate how feeding styles might differ across income levels. Therefore, these cutoff points are useful for researchers who want to classify low-income parents in the United States into the four feeding style categories. It is important to note that some parents show styles that are more prototypical of the feeding styles, whereas others, with scores near the cutoff points, show styles that are less distinct. Further studies should examine ways to use the demandingness and responsiveness scores as continuous measures and possibly examine differences between parents with prototypical and borderline styles (Qu, Shewchuk, & Hughes, 2011).

It is important to note that ethnic differences in the scores for demandingness and responsiveness have not been thoroughly investigated. Because of the higher prevalence of obesity among African American and Hispanic children (Ogden et al., 2010) and that ethnic differences exist in African American and Hispanic children compared to Whites on numerous early-life risk factors for childhood obesity (Taveras, Gillman, Kleinman, Rich-Edwards, & Rifas-Shiman, 2010), future research should also address whether these cutoff points differ across ethnicity in other samples.

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Table 1

Median scores on demandingness and responsiveness across 5 samples

	<i>N</i>	Ethnicity ^a	Demandingness	Responsiveness
Study 1	231	AA, H	2.79	1.16
Study 2	718	AA, H, W	2.79	1.17
Study 3	99	AA, H, W	2.63	1.21
Study 4	177	AA, H	3.00	1.14
Study 5	140	Haitian, Brazilian, Latin American	2.89	1.12
Mean			2.82	1.16
SD			0.14	0.03

^a AA = African American, H = Hispanic, W = White