

Measuring Attitudes Toward Acceptable and Unacceptable Parenting Practices

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Abstract This study investigated the properties of a new rating instrument, the Parenting Questionnaire (PQ), designed to measure attitudes about acceptable and unacceptable parenting practices. In Study 1, subject matter experts representing culturally diverse psychologists, parents, and college students were consulted to identify 110 items receiving high endorsement. In Study 2, items were administered to 1,398 undergraduate students to examine their factor structure and the effects of ethnicity and gender differences on PQ factors. In Study 3, test–retest reliability ($N = 92$) and convergent validity ($N = 142$) of the PQ factors were examined. Exploratory factor analysis revealed three factors (total of 63 items) with high internal consistencies that accounted for a moderate amount of total variance ($R^2 = .38$). The factors were Critical Feedback (26 items), Supportive Feedback (26 items), and Physical Discipline (11 items). Significant ethnicity and gender differences were found on the three PQ factors, as well as a significant interaction between ethnicity and gender on the Supportive Feedback factor. PQ factor scores demonstrated good temporal stability, internal consistency, and convergent validity. Overall findings suggest that the PQ is a reliable, stable, and valid measure of attitudes toward

parenting with three distinct factors. Future research directions with parents are discussed.

Keywords Parents · Assessment · Childrearing · Discipline · Child abuse

Introduction

Identifying and understanding similarities and differences in parenting across groups are topics of longstanding interest to social scientists (Baumrind 1971; Bornstein 1989; Korbin 1981; Levine et al. 1988; Whiting 1963). Parents are the earliest agents in children's socialization, and as such they exert considerable influence on children's development. Whereas some studies have demonstrated commonalities across groups in parenting and associations between parental behavior and child functioning (e.g., Bradley 2002; Whiteside-Mansell et al. 2003), other studies have identified differences based on demographic, cultural, or environmental variables (e.g., Chao 1994; Darling and Steinberg 1993; Harkness and Super 1996; Kotchick and Forehand 2002; Lau et al. 2006). Research on parenting determinants not only appeals to our basic curiosity about human behavior but could potentially provide valuable information about factors associated with maladaptive childrearing practices (Giovannoni and Becerra 1979; Gudino et al. 2006; Korbin 1981). Such knowledge could inform policy, advocacy, and intervention efforts to prevent child maltreatment and strengthen healthy parent–child relationships (Yasui and Dishion 2007).

One approach to studying parenting involves measuring parental attitudes toward childrearing. Attitudes are “an individual's predisposition, reaction to, or affective evaluation of the supposed facts about an object or situation,”

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reflecting a favorable or unfavorable opinion about the object or situation (Holden and Edwards 1989, p. 89–90). A social-cognitive perspective posits that attitudes are closely related to knowledge and beliefs, values, attributions, expectations, and perceptions, yet these phenomena may serve different functions in relation to behavior (Holden and Buck 2002). Attitudes about childrearing have held considerable importance in parenting research, based on the presumption that attitudes influence how parents think about and respond to children. The assumption that attitudes lead to actions is intuitively appealing; however, it is also possible that attitudes could develop after a person has already acted or that the thought and action could develop concurrently. The nature of the relationship between attitudes and behavior is an area of continuing study.

Historically, investigations of childrearing attitudes have often focused on how to control, discipline, or punish a child (Holden and Edwards 1989). Although evidence is mixed, several studies have demonstrated differences in attitudes about discipline as a function of respondents' background, environment, or experience. Childrearing methods viewed as excessively harsh in some cultures are accepted as normative in others (Collier et al. 1999; Hong and Hong 1991). Factors such as racial or ethnic background (Flynn 1998; Jambunathan et al. 2000), geographical region (Flynn 1994), conservative or fundamentalist religiosity (Danso et al. 1997), parent gender (Flynn 1998), and experiences of physical punishment as a child (Bower-Russa et al. 2001) have been associated with differing attitudes toward corporal punishment. Concerns about childrearing attitudes have arisen because acceptance of punitive disciplinary methods has been associated with propensity for child maltreatment (Chilamkurti and Milner 1993; Crouch and Behl 2001) and/or with negative outcomes for children (Gershoff 2002; Straus 2001; Thompson et al. 2003).

Research on parental attitudes toward childrearing was extremely popular in American psychology throughout much of the twentieth century. However, Holden and Edwards' (1989) review of parent attitude research identified widespread problems relating to questionnaire design, conceptual underpinnings, and psychometric characteristics. As they noted, research on childrearing attitudes is challenging due to the complex, multifaceted nature of parenting, and to the dearth of reliable and valid assessment instruments. Their review concluded that, if attitude measures were to provide useful information, they needed to adhere to basic rules of test construction, demonstrate acceptable psychometric properties, and be used in conjunction with other approaches to studying parenting. As with any self-report measure, attitude instruments may contain wording or interpretation biases, and these biases

may not be the same across groups (Whiteside-Mansell et al. 2003). Thus, findings from attitude instruments need to be evaluated for correspondence with data from other methods.

Further, Holden and Edwards (1989) found that few studies tested the link between parental attitudes and behavior, and those that did often revealed a tenuous correlation. In a follow-up review of parent attitude research, Holden and Buck (2002) found a downward trend in the frequency of studies in the 1990s, albeit with a modest increase in research relating parent attitudes to observed or reported behavior. Among the positive examples they cited was a study demonstrating a link between maternal attitudes toward spanking and parents' daily and weekly reports of spanking (Holden et al. 1995). In another example involving Mexican mothers, abusive mothers reported more frequent use of punishment and endorsed attitudes of its beneficial effects at significantly higher rates than comparison group mothers (Corral-Verdugo et al. 1995).

One reason for the traditional popularity of parent attitude instruments is convenience: Attitude measures are relatively easy to administer and score. Another reason is practicality, in that they can provide information too difficult to obtain through self-report or observation of behavioral practices. Attitude instruments tap respondents' opinions about childrearing without entailing disclosure of personal information or risk of self-incrimination. By wording items in the form of context-specific vignettes, attitude instruments can assess views about childrearing practices that typically occur in private. These attributes could potentially make attitude measures useful in providing information about disciplinary encounters on the continuum toward abuse.

As reviewed by Holden and colleagues (Holden and Buck 2002; Holden and Edwards 1989), researchers have developed hundreds of measures to assess childrearing attitudes but with at best limited evidence as to their psychometric characteristics. One frequently used measure is Bavolek's (1984) Adult-Adolescent Parenting Inventory (AAPI), employed in several studies investigating attitudes related to risk of punitive or abusive parenting (e.g., Acevedo 2000; Cicchetti et al. 2006; Combs-Orne and Cain 2008; Crouch and Behl 2001; Jambunathan et al. 2000). A review of the literature since the publication of Holden and Buck's 2002 article did not reveal any new parental attitude measures receiving widespread support. The AAPI contains 32 items, to which parents respond on a 5-point Likert-type scale from *strongly agree* to *strongly disagree*. The AAPI has four subscales: Reversing Parent–Child Family Roles, Lack of Empathic Awareness of Children's Needs, Inappropriate Developmental Expectations of Children, and Strong Parental Beliefs in the Use of Corporal Punishment. Sample

items include, “Children should be expected to verbally express themselves before the age of 1 year,” and “Parents have the responsibility to spank their children when they misbehave.” Bavolek (1984) provided data to support the factor structure, internal consistency, test–retest reliability, and construct validity of the AAPI with adults and adolescents. The original version was revised and renormed, resulting in a 40-item AAPI-2 with a fifth subscale called Oppressing Children’s Power and Independence (Bavolek and Keene 1999).

Research has shown the AAPI to relate in expected ways to punitive parent behavior and child abuse risk (e.g., Cicchetti et al. 2006; Combs-Orne and Cain 2008; Crouch and Behl 2001). Other research on the AAPI (Esaki 2008; Lutenbacher 2001) and AAPI-2 (Conners et al. 2006), however, failed to confirm the instrument’s factor structure, providing partial support for some AAPI subscales and none for others. Further, the AAPI focuses on inappropriate or problematic parenting practices rather than assessing agreement with both positive and negative practices. The AAPI has been used to compare the parenting attitudes of different cultural groups (Acevedo 2000; Jambunathan et al. 2000). Acevedo (2000) reported that the internal consistency of AAPI scales was acceptable across Mexican–American and European American groups but that two of the scales (role reversal and corporal punishment) may have been interpreted differently across ethnic groups. Acevedo cautioned that the functional meaning and relevance of the AAPI parenting beliefs constructs needs to be examined across ethnic groups.

In response to the need for conceptually and psychometrically sound parental attitude measures, the current study sought to develop a measure of attitudes across a range of acceptable and unacceptable childrearing practices. Research has demonstrated links between positive parenting and children’s adaptive and prosocial development, and correspondingly between negative parenting and maladaptive child outcomes (e.g., Armistead et al. 2002; Baumrind 1971; Bornstein 1989; Steinberg et al. 1992). Positive and negative parenting have been conceptualized somewhat differently across studies, yet their relative relationship to child outcomes remains quite consistent (Whiteside-Mansell et al. 2003). Debate continues, however, on the definitions and impact of various aspects of negative parenting, particularly across ethnic, cultural, and environmental contexts (Darling and Steinberg 1993; Deater-Deckard et al. 2003; Whiteside-Mansell et al. 2003). For example, researchers have attempted to distinguish between the constructs of harsh and intrusive parenting (Whiteside-Mansell et al. 2003), behavioral and psychological control (Barber 1996), and authoritarian parenting compared to a cultural notion of training (Chao 1994). Existing instruments assessing parental attitudes

toward punitive or controlling childrearing methods (e.g., Bavolek 1984; Bavolek and Keene 1999; Flynn 1998; Holden et al. 1995) contain few if any items tapping supportive or positive parenting. The current research addressed the need for an attitudinal measure across multiple conceptual areas and a range of parenting practices. Our intent was to include items related to positive parenting as well as items reflecting routine guidance and disciplinary practices and, further, items that in some contexts have been associated with maladaptive parenting or with child abuse or neglect (Gray and Cosgrove 1985; Korbin 1981; Kotchick and Forehand 2002).

The present study assessed college students in order to develop a new instrument. College students represent a relevant, yet approximate population to study. Most college students are young, unmarried, and not yet parents, so it is important to remember that their attitudes may change as a result of becoming parents (Flynn 1998). However, as young adults, college students have experienced the childrearing practices of their own parents and can reflect upon them in light of other socialization experiences. College students are future parents and citizens who will influence social norms and policy (Flynn 1998).

The goals of this article are to describe the development of the PQ and report the results of a series of initial tests of its psychometric properties and ability to reflect group differences. Our first step was to create a pool of items describing a wide range of parenting practices and to consult with subject matter experts to refine the content, wording, and anchors used in the PQ. Second, we used exploratory factor analysis to select items that loaded on each factor, and we examined the effects of ethnicity and gender on factor scores. Third, we assessed the test–retest reliability of the PQ and provided initial evidence of its external validity by testing the extent to which each factor is related to independent scales measuring similar constructs.

Study 1

Study 1 was designed to develop a preliminary set of questionnaire items and response format, assess the content validity of items, and make revisions based on respondents’ feedback.

Method

Participants

Thirty-six individuals were invited to serve as subject matter experts. The 22 individuals responding to the invitation included 2 psychologists with measurement expertise, 1 cross-cultural researcher, 7 clinical child psychologists, 5

Table 1 Demographic characteristics of subject matter experts in Study 1 ($N = 22$)

Characteristic	Percent
Highest education	
High school	18
Four-year college degree	23
Graduate degree	59
Gender	
Male	23
Female	77
Ethnicity	
White/Caucasian	45
Black/African American	9
Asian/Asian American	14
Hispanic/Latino	32
Mixed	0
Other	0
Parenting status—ever had children	
Yes	64
No	36
Born in United States	
Yes	64
No	36

parents, and 7 graduate and undergraduate psychology students. They ranged in age from 21 to 67 years ($M = 37.2$, $SD = 14.6$), and approximately two-thirds were parents. As shown in Table 1, they represented diverse education levels, ethnic backgrounds, and life experiences.

Measures

The instruments for this study are as follows.

Initial Item Pool An initial set of 124 PQ items based on the research literature and consultation with clinical and developmental psychology colleagues. Potential items were written to operationalize childrearing responses in three areas that include some examples potentially associated with physical or emotional child abuse or neglect, as well as a fourth area of responsive parenting. The areas were (a) physical discipline (31 items): any behavior involving the use of physical contact, force, or restrictions in movement to control or correct a child's behavior; (b) evaluative communication (38 items): words or gestures that may convey a message that the child or his/her behavior is inappropriate, wrong, or unworthy; (c) delegation of responsibility (26 items): the act of requiring or expecting a child to perform tasks or make decisions to meet family needs, fulfill family expectations, or promote the child's independence; and (d) responsive communication (29

items): words, gestures, or actions that may convey a message that the child or his/her behavior is appropriate, desired, or worthy, or that the parent cares about the child. All items were newly written, but a few were loosely based on items used in other measures (Collier et al. 1999; Hong and Hong 1991), and behaviors described in some items were similar to behaviors referred to in the literature (Giovannoni and Becerra 1979; Gray and Cosgrove 1985).

Each item described a situation in which a parent (or parents) responds to a specific child's behavior. Items were 1–2 sentences in length and included the child's age (ranging from 0 to 11 years). The age and gender of the child as well as items referring to the gender of parent were balanced across items in each area. Sample items are, “A 2-year-old boy keeps pinching his parent, so the parent pinches the boy's arm back” (physical discipline); “The parents of a 6-year-old child call the child an ‘idiot’ for forgetting to flush the toilet” (evaluative communication); “The parents require their 8-year-old child to iron clothes as an assigned chore” (delegation of responsibility); and “A 10-year-old girl is upset after she loses a competition. Her parents tell her they are very proud of her for trying” (responsive communication). The reading level of items was approximately seventh grade (Flesch-Kincaid Reading Level of 6.9).

Parenting Questionnaire Sample A form for obtaining experts' feedback on the initial directions for completing the PQ, guidelines and anchors for ratings choices, and five illustrative PQ items. Subject matter experts were asked to comment on the clarity of the directions and the response choice format (4 choices from *acceptable* to *unacceptable* plus a *do not understand* option). They were given the option of writing their changes on a hard copy of the form, using the Track Changes feature of Microsoft Word, or highlighting (shading) to indicate comments.

Subject Matter Expert Ratings Survey A form for obtaining experts' feedback on the 124 questionnaire items, organized by the four conceptual areas and their descriptions. Subject matter experts were asked to rate, “How appropriate is this item to the category?” on a 5-point scale from *very* (1) to *not at all* (5), or to indicate *don't know*. On a separate line, they were asked to rate, “How likely is it that this item would vary across cultures?” on the same 5-point scale. The latter item was included with the anticipation that the PQ might eventually be used to evaluate childrearing attitudes across cultural groups. In addition, respondents were asked to note any editorial suggestions or unclear wording on the form. For each category, space was provided for experts to write in additional items or content areas.

Demographic Information A form requesting background information on subject matter experts. Areas assessed

include gender, age, education, occupation, ethnicity, country of origin, and any experiences living outside the United States.

Procedures

Subject matter experts were sent an e-mail describing the study and inviting them to participate. Those who agreed were sent the Parenting Questionnaire Sample, Subject Matter Expert Ratings Survey, and Demographic Information forms, along with a cover letter of instructions. Respondents were asked to return their forms within 3 weeks. They received no remuneration but were thanked for their time.

Results

Responses were received from 22 of the 36 potential participants (61%). Survey ratings were coded and independently rechecked for accuracy. Five surveys had apparent validity problems specific to rating the appropriateness of each item to a conceptual area. In all five cases, the pattern of responses suggested the respondents were rating the acceptability of the parent's behavior instead of appropriateness of the item. Therefore, these five respondents' answers were excluded from the expert ratings analysis.

Means and standard deviations of experts' ratings ($n = 17$) were calculated for each item regarding *appropriateness to the content area* and *likelihood to vary across cultures*. Mean item scores for appropriateness ranged from 1.12 ($SD = .033$) to 2.93 ($SD = 1.29$) (1 = *very*, 5 = *not at all*). Mean item scores for likelihood to vary across cultures ranged from 1.24 ($SD = 0.56$) to 4.47 ($SD = 1.07$) using the same 5-point scale. Several respondents also provided editorial suggestions regarding item wording, questionnaire directions, or response anchors.

After examining the pattern of expert ratings across all items, we established a cut-off of 2.50 for the appropriateness of an item to a content area and 3.00 for likelihood of the item to vary across cultures. Items with mean ratings above these cut-offs were eliminated from the questionnaire. Based on the ratings and editorial feedback, we eliminated 14 items and made revisions in wording, resulting in 110 total items.

Study 2

Study 2 investigated the factor structure of the 110-item version of the PQ with college students as well as the effects of ethnicity and gender on PQ factor scores.

Table 2 Demographic characteristics of undergraduate students in Study 2 ($N = 1,398$) and test–retest sample in Study 3 ($N = 92$)

Characteristic	Percent of subjects in Study 2	Percent of subjects in Study 3
Year in college		
1st	44	48
2nd	29	26
3rd	14	12
4th	9	8
5th or beyond	3	5
Gender		
Male	32	25
Female	68	75
Ethnicity		
White/Caucasian	64	65
Black/African American	7	7
Asian/Asian American	9	8
Hispanic/Latino	10	9
Mixed	5	5
Other	5	6
Parenting status—ever had children		
Yes	2	3
No	98	97
Born in United States (yes)		
Participant	89	90
Participant's mother	68	79
Participant's father	66	74

Method

Participants

Undergraduate students enrolled in introductory psychology at an urban Midwestern university were invited to participate in an online parenting survey, which had been approved by the university's Institutional Review Board. The study was one of several options students had to fulfill a departmental research requirement. In addition, a small number of participants (40–50) were recruited from university clubs for students of various ethnic minority groups. The 1,398 study participants ranged in age from 18 to 43 years, with a mean age of 19.8 ($SD = 2.2$); 98% were between 18 and 25 years of age. As shown in Table 2, a majority of the sample was female and White, although 36% identified as an ethnic minority. Eleven percent of the sample was born outside the US, as were approximately one-third of their parents.

Measures

The instruments administered in the study were as follows.

Demographics Questionnaire A form requesting background information (e.g., gender, age, year in school, parenting status, and country of origin for each student and his/her parent). Students were asked to self-identify their ethnic group as one of the following: White or Caucasian, American Indian/Native American, Asian or Asian American, Black or African American, Hispanic or Latino, Mixed, or Other. If participants chose Other, they were asked to write in their ethnicity. The two respondents who self-identified as American Indian/Native American were subsequently grouped in the Other category. Respondents who self-identified as Other wrote in their ethnicity as Indian, Arab, Ghanaian, Middle Eastern, Polish, Jewish, Pakistani, or a variety of other terms.

Parenting Questionnaire (PQ) The 110-item instrument developed in Study 1 on which respondents rated the acceptability or unacceptability of a parent's responses to their child's behavior. The instructions read as follows:

The items below describe ways parents may respond to their child's behavior. Rate how acceptable or unacceptable the parent's responses are for each item. Please answer each item honestly. Even if you are not sure, please give a response for each item. Your responses are completely confidential.

Guidelines for ratings choices were listed as follows:

Acceptable: Acceptable, reasonable, likely to help stop the behavior or encourage and support the child.

Somewhat Acceptable: Somewhat acceptable, reasonable, likely to help stop the behavior or encourage and support the child.

Minimally Acceptable: Minimally acceptable, reasonable, likely to help stop the behavior or encourage and support the child.

Unacceptable: Not acceptable, reasonable, likely to help stop the behavior or encourage and support the child.

Don't Understand: Item does not make sense.

Items in each conceptual area included a range of content. For example, the 29 physical discipline items included examples of spanking such as, "When their 1-year-old child throws food on the floor, the parents slap the child's hand," and more extreme actions such as, "The parents of an 11-year-old boy learn that he has stolen candy from the store again. They burn a mark on his arm with a cigarette."

Procedures

Students who signed up were given a link to access the study online. Administration took an average of 30 min or less. An introductory page described the study, and by continuing on to the next page students indicated their agreement to participate. After completing the demographics portion and another measure not relevant to this study, students completed one of two forms of the PQ consisting of identical items in different randomized order. Below each item, the five response boxes appeared with their labels (e.g., acceptable, somewhat acceptable) written immediately above the boxes. Students had to respond to each PQ item with one of the acceptability ratings choices or the *do not understand* option in order to move on to the next item. After completing the questionnaires, an informational feedback sheet with bibliographic references appeared, and students in introductory psychology were automatically credited for their participation. Students in clubs were invited to partake in refreshments (pizza and soft drinks) provided to the entire group when the study was introduced.

Results

PQ responses for individual items were analyzed using a 4-point scale (5 = *acceptable*, 4 = *somewhat acceptable*, 3 = *minimally acceptable*, or 2 = *unacceptable*). Responses of *do not understand* on an item were coded as 1 and treated as missing values using pairwise deletion. Tests of factorability suggested the dataset was appropriate for factor analysis. Bartlett's Test of Sphericity indicates that this matrix can be factored ($\chi^2(1953) = 32703.274$, $p < .001$), the Kaiser–Meyer–Olkin Measure of Sampling Adequacy (.955) indicates that the shared common variance between the items was excellent (0.763), and the Individual Measures of Sampling Adequacy values were all above 0.80, indicating that the common variance of the individual items is excellent. With the goal of identifying items related within factors and downsizing the length of the original questionnaire, exploratory factor analysis with Principal Components Analysis (PCA) was used. The analysis of variance explained by each factor and the scree plot both suggested a 3-factor structure. PCA with Promax Rotation was repeated in an iterative process retaining 3 factors to keep items loading above |.40| on the structure matrix, thereby deleting 37 items. Ten additional items were deleted due to lack of conceptual fit with their empirically assigned factor, leaving 63 items. Based on item content, we relabeled two of the three factors and retained the original name of one factor.

Table 3 Results of exploratory factor analysis (PCA) on the Parenting Questionnaire (PQ) ($N = 1,398$)

PQ factor	% variance R^2	Structure factor loadings	Internal consistency α	Factor correlations r	
				CF	SF
Critical feedback (CF) (26 items)	24.16	.42–.78	.93		
Supportive feedback (SF) (26 items)	9.02	.40–.75	.90	–.55**	
Physical discipline (PD) (11 items)	4.45	.44–.75	.83	.26**	.05
Total score	37.62				

EFA was conducted using both principal components analysis (PCA), shown above, and principal axis factoring (PAF), and the results were very similar

** Correlation is significant at the 0.01 level (2-tailed)

The results, displayed in Table 3, revealed three factors, Critical Feedback (CF), Supportive Feedback (SF), and Physical Discipline (PD), with high internal consistencies that accounted for a moderate amount of total variance. CF was positively correlated with PD ($r = 0.260$) and negatively correlated with SF ($r = -0.552$), and PD and SF were almost uncorrelated ($r = 0.046$). Examples of items that loaded strongly on CF include: “The parents of an 11-year-old boy learn that he has stolen candy from the store again. They burn a mark on his arm with a cigarette;” “A 3-year-old boy soils his pants, and his parents smell the odor. They call him ‘stinky pants’;” and “When a 2-year-old boy gets up in the middle of the night, his parents tell him to go back to bed. After he continues to bother them, they tell him they won’t love him anymore if he doesn’t leave them alone.” Items that loaded strongly on SF include: “The parents of an 8-year-old boy see him playing patiently with his 3-year-old sister. They tell him it pleases them that he is playing so nicely with her;” “A 3-year-old girl overhears her parents tell a neighbor how proud they are of her for sharing her toys;” and “The parents of a 3-year-old boy let him choose which story he wants to hear when they read to him.” Items that loaded strongly on PD include: “The parents spank their 5-year-old child with their hand on the child’s rear end when the child misbehaves,” and “The parents of a 7-year-old boy spank him on the buttocks with a belt when he misbehaves.” Individual items loading above $|.40|$ are listed in Table 4. With the 63 items, a Principal Axis Factoring (PAF) was run to examine the factor structure focusing on the interrelations of items instead of the item reduction. The results revealed a very similar factor structure.

A MANOVA was conducted to determine the effect of ethnicity and gender on the three factors of the PQ. Significant ethnicity and gender differences were found on the three factors (ethnicity: Wilks’ $\Lambda = .92$, $F(3, 1367) = 7.84$, $p < .001$; gender: Wilks’ $\Lambda = .95$, $F(3, 1367) = 24.32$, $p < .001$). A significant interaction between ethnicity and gender was also found (Wilks’ $\Lambda = .97$, $F(15, 3774) = 2.61$, $p < .001$). Follow-up ANOVAs were performed for each PQ factor with gender and ethnicity entered

as the between-group variables and the interaction term between them. Significant ethnicity differences were found on CF ($F(5, 1369) = 2.77$, $p < .05$), PD ($F(5, 1369) = 8.041$, $p < .001$), and SF ($F(5, 1369) = 13.14$, $p < .001$). Additionally, significant gender differences were found on CF ($F(1, 1369) = 18.48$, $p < .001$), PD ($F(1, 1369) = 11.044$, $p < .001$), and SF ($F(1, 1369) = 57.38$, $p < .001$). Relative to females, males rated CF and PD factors higher (i.e., more acceptable) and the SF factor lower. A significant ethnicity by gender interaction was also found for SF ($F(5, 1369) = 6.00$, $p < .001$).

Post-hoc Tukey tests (see Table 5) were conducted to examine the pairwise comparisons between ethnic groups. For the significant ethnicity difference in CF, White participants scored lower than participants in the Other category ($p < .05$). For PD, Black participants scored higher than any other groups except the Other group ($ps < .05$). Asian participants scored higher than Hispanic/Latino participants and White participants ($ps < .05$). White participants scored significantly lower than participants in the Other category, the latter of which scored significantly higher than Hispanic/Latino participants ($ps < .05$). For SF, White participants scored higher than Asian participants and Black participants, ($ps < .01$). Hispanic/Latino participants also scored higher than Black participants ($p < .05$). To understand the significant interaction between gender and ethnicity for SF, two Tukey tests were conducted for males and females, respectively. For males, Black participants scored lower than all other groups ($ps < .01$). For females, although an overall significant main effect of ethnicity was found ($F(5, 932) = 3.12$, $p < .01$), no significant pairwise ethnic group differences were found.

Study 3

The test–retest reliability and convergent validity of the 63-item PQ were investigated with a new group of college students. To assess convergent validity, we created an Attitudes toward Parenting measure composed of items from

Table 4 Parenting Questionnaire (PQ) items structure matrix

Initial area	Items by factor	Factor		
		CF	SF	PD
Critical feedback (CF)				
PD	1. The parents of an 11-year-old boy learn that he has stolen candy from the store again. They burn a mark on his arm with a cigarette	.78	−.44	
EC	2. A 3-year-old boy soils his pants, and his parents smell the odor. They call him “stinky pants”	.74	−.45	
EC	3. When a 2-year-old boy gets up in the middle of the night, his parents tell him to go back to bed. After he continues to bother them, they tell him they won’t love him anymore if he doesn’t leave them alone	.72		
EC	4. The parents of an 11-year-old girl warn their daughter that she won’t be able to get a husband if she doesn’t get rid of the pimples on her face	.70		
EC	5. A 5-year-old boy is overweight compared to his siblings. His parents call him “the little fat one”	.69		
EC	6. The parents of an 8-year-old girl keep her hair cut short, frequently dress her in boy’s clothing, and tell her that they really wanted to have a boy instead of a girl	.68	−.47	
EC	7. The parents of a 6-year-old child call the child an “idiot” for forgetting to flush the toilet	.67		
EC	8. The parents of a 7-year-old girl tell her that she doesn’t deserve to be part of their family because she lied to them	.65		
EC	9. The parents of an 8-year-old boy forget their son’s birthday. When he reminds them, they tell him that birthdays are for babies	.65	−.41	
EC	10. An 11-year-old girl who is left-handed tells her parents that her teacher cannot read her handwriting. The parents tell her that left-handed people cannot write as well as right-handed people	.64		
PD	11. The parents of a 3-year-old girl tie her to a sturdy table post to keep her from moving more than 3 feet away from the post while they are not in the room	.63		
PD	12. The parents of a 6-year-old girl make her leave her clothes on after she wets herself in public, even when a change of clothing is available	.62		
PD	13. When a 4-year-old boy throws a rock at his brother’s head, his parents whip him on his bare legs with a leather switch, breaking the skin	.59		
EC	14. An 11-year-old girl admits to her parents that she is attracted to girls rather than boys. In response, the parents tell her that she is disgusting and dirty	.58		
EC	15. A 9-year-old boy has a special blanket he carries with him around the house. His parents bring out the blanket while he is playing with his friends saying, “Here’s your security blanket, little boy”	.58		
RC	16. Of the three children in the household, only one is a boy. His parents tell him he is their favorite	.56		
PD	17. An 8-month-old girl has been crying for an hour, even though the parents have tried feeding her, changing her diapers, and rocking her. The parents firmly shake the baby	.56		
PD	18. A 5-year-old girl throws toys at her parent. When she won’t stop, her parent throws the toys back at her	.55		
EC	19. When they are frustrated with him, the parents of a physically disabled, 10-year-old boy refer to him as “the crippled one”	.54		
EC	20. After a father finds his 7-year-old son playing with a doll, he tells the boy that he will have to go to school wearing girl’s clothes for a day if the father catches him playing with dolls again	.53		
EC	21. The parent of a 5-year-old child sees the child playing in the mud. The parent yells out to the child, “You dirty little shit!”	.53		
EC	22. An 11-year-old boy forgets repeatedly to take out the trash. His parents threaten to give him away the next time he does not do his chores	.52		

Table 4 continued

Initial area	Items by factor	Factor		
		CF	SF	PD
PD	23. The parent of an 11-year-old girl cuts her long hair short as a punishment for flirting with boys	.51		
DR	24. The parents of an 11-year-old girl choose a man for their daughter to marry who is twice her age. They tell her she will marry him in a few years and therefore cannot see any other boys	.50		
EC	25. A 7-year-old girl takes growth hormones on a doctor's recommendation. Her parents tell her not to talk about this with anybody because normal kids don't have to take growth hormones	.42		
PD	26. The parents of a 6-year-old hold the child under a cold shower briefly each morning that the child wets the bed	.42		
Supportive feedback (SF)				
RC	27. The parents of an 8-year-old boy see him playing patiently with his 3-year-old sister. They tell him it pleases them that he is playing so nicely with her	–.53	.75	
RC	28. A 3-year-old girl overhears her parents tell a neighbor how proud they are of her for sharing her toys	–.52	.74	
RC	29. A 10-year-old girl is upset after she loses a competition. Her parents tell her they are very proud of her for trying	–.56	.70	
RC	30. The parents take their 8-year-old child out for ice cream after the child brings home a good report card	–.40	.68	
RC	31. The parents of a 3-year-old boy let him choose which story he wants to hear when they read to him	–.46	.66	
RC	32. The parents of a 5-year-old boy hug him after leaving a parent-teacher conference where they received a positive behavior report regarding their son	–.53	.66	
RC	33. A 2-year-old boy falls down and scrapes his knee. The father picks him up, checks his knee to be sure he is alright, and rocks him gently	–.42	.65	
RC	34. The parents of a 4-year-old boy kiss him and sing “goodnight” songs when they put him to bed each night		.64	
RC	35. The parents of a 2-year-old girl hug her when she wakes up from her nap		.63	
RC	36. When food is limited, the parents of two children feed the children first and eat less themselves	–.46	.62	
DR	37. The parents of an 8-year-old boy give him a small amount of money each week for helping with household chores		.62	
EC	38. The parents of a 6-year-old boy find out that he bit another child. The parents ask him about the incident and encourage him to call the child that evening to apologize	–.43	.62	
RC	39. A 6-year-old girl makes her bed without her parents' help. In response, the parents tell her what a “big girl” she is, without mentioning the mistakes (e.g., the sheets are crooked and pillow on the floor)		.61	
RC	40. The parents of a 7-year-old boy have a chart of three tasks (such as taking a bath without arguing) that he is expected to do. At the end of each week, they pay him 10 cents for each task completed		.58	
EC	41. A 9-year-old girl got in trouble at school for hitting a younger child, and the school notified her parents. As a consequence, the parents talk with the girl about why fighting is bad		.56	
RC	42. As part of a toilet training program, the parents of a 2-year-old child give a small prize (such as a piece of candy or matchbox car) each time the child successfully uses the toilet		.56	
RC	43. When her 10-year-old son leaves for school each morning, the mother gives him a hug and says, “I love you”		.56	
RC	44. An 8-year-old girl took music lessons last year but didn't like them. This year, her parents let her choose whether she wants to continue taking lessons		.55	

Table 4 continued

Initial area	Items by factor	Factor		
		CF	SF	PD
RC	45. The parents of a 5-year-old girl let her stay up an extra 20 min when she cooperates in taking her bath		.53	
RC	46. At home, the father of a 9-year-old girl calls her by an affectionate nickname (such as “Sweetie”)		.51	
RC	47. An 11-year-old boy has had problems with talking out and fighting in school. His parent takes him for a special activity after a week of no disciplinary reports from school		.51	
RC	48. A 1-year-old girl begins to cry when her parents first leave her at a family member’s house. They stay for an extra 10 min before leaving		.45	
PD	49. A 2-year-old girl hits her infant brother. In response, her parents sit her on a chair facing the corner and make her stay there for 2 min		.45	
EC	50. A 10-year-old boy is 2 h late coming home from a friend’s house, so his parents tell him he is not allowed to go out for recreational activities for a week		.43	
DR	51. The parents of a 1-year-old boy let him feed himself when he wants to with his hands or a spoon, even though he often makes a mess		.41	
EC	52. When a 10-year-old girl swears at her parent, the parent says, “It makes me sad when you swear at me”		.40	
Physical discipline (PD)				
PD	53. The parents spank their 5-year-old child with their hand on the child’s rear end when the child misbehaves			.75
PD	54. The parents of a 7-year-old boy spank him on the buttocks with a belt when he misbehaves			.72
PD	55. The parents of a 4-year-old child spank the child with a wooden spoon for talking back to an adult			.70
PD	56. A 9-year-old boy is supposed to be doing his homework but is reading a magazine. When his parents find him with the magazine, they take it away from him and pull on his ears			.63
PD	57. When their 1-year-old child throws food on the floor, the parents slap the child’s hand			.62
PD	58. Each time their 9-year-old daughter uses a vulgar or obscene word, the parents place spicy sauce on her tongue			.59
PD	59. The parents of an 8-year-old boy wash his mouth with soap (place soap in his mouth) when he uses obscene words			.58
PD	60. The parents make an 8-year-old girl crouch in the same position for 5 min as a consequence for talking back			.56
PD	61. A 2-year-old boy keeps pinching his parent, so the parent pinches the boy’s arm back			.54
PD	62. When the parents of a 10-year-old girl learn that she has been lying to them about where she goes after school, they slap her on the face, leaving a red mark	.41		.52
PD	63. The parents of a 10-year-old boy make him sit on his hands for 10 min when he keeps flipping his pencil around instead of doing his homework			.44

Initial areas were *EC* evaluative communication, *RC* responsive communication, *PD* physical discipline, and *DR* delegation of responsibility. Factor labels are *CF* critical feedback, *SF* supportive feedback, and *PD* physical discipline. Factor loadings less than .40 were suppressed from reporting

three existing instruments. The instruments were selected for their focus on the specific constructs assessed in the PQ factors identified in Study 2, their brevity, and prior evidence of their psychometric characteristics in use with parents. For the CF factor, we selected Olsen et al.’s (2002) Psychological Control scale, an adaptation of Barber’s (1996) psychological

control questionnaire based on research showing the comparability of items for use with a cross-cultural sample. For the SF factor, we used the Positive Parenting scale of the Alabama Parenting Questionnaire (Shelton et al. 1996). Both of the above instruments assessed the frequency of parents’ use of specific childrearing practices, so we modified the

Table 5 Mean and standard deviation scores by gender and ethnicity for the three PQ factors

	Critical feedback (CF)		Physical discipline (PD)		Supportive feedback (SF)	
	Mean	SD	Mean	SD	Mean	SD
Gender						
Male	2.68	.28	2.72	.41	4.39	.50
Female	2.60	.22	2.59	.37	4.57	.33
Ethnicity						
White/Caucasian	2.61	.23	2.59	.36	4.55	.35
Black/African American	2.63	.31	2.87	.42	4.34	.63
Asian/Asian American	2.67	.25	2.72	.41	4.41	.45
Hispanic/Latino	2.62	.23	2.58	.36	4.49	.37
Mixed	2.62	.22	2.63	.36	4.51	.44
Other	2.71	.36	2.73	.45	4.44	.46

Ratings choices on PQ items are *Acceptable* (5), *Somewhat Acceptable* (4), *Minimally Acceptable* (3), and *Unacceptable* (2)

items to assess their acceptability as methods of parenting. For the PD factor, we used the Attitudes toward Spanking scale, which measures parents' endorsement of corporal punishment techniques (Deater-Deckard et al. 2003). Each of these measures provided five response choices. For consistency, we employed a 5-response format for all items on the Attitudes toward Parenting scale.

Method

Participants

Undergraduate students enrolled in introductory psychology at the same urban Midwestern university as in Study 2 were invited to participate in an IRB approved online study at two time points scheduled 3 weeks apart. Students had the option of participating at one or both time points and received course credit accordingly. Data from the 92 students who participated at both Times 1 and 2 were available for the test–retest study. These participants ranged in age from 18 to 29 years, with a mean age of 19.7 (SD = 2.2). At Time 2, 142 students participated. A majority of Time 2 participants also had participated at Time 1; however, because the demographics form was not readministered at Time 2, background characteristics on the additional students are not available. As shown in Table 2, the demographic profile of participants is very similar across Studies 2 and 3.

Measures

The online study included the following instruments:

Demographics Questionnaire A background information form (described under Study 2). This measure was administered at Time 1.

Parenting Questionnaire (PQ) An instrument on which respondents rated the acceptability or unacceptability of a parent's responses to child behavior, comprised of the 63 items identified in the factor analysis in Study 2. Instructions and ratings categories were identical to the format in Study 2. The PQ was administered at Times 1 and 2. Participants were randomly given one of two forms of the PQ in differing order; those participating twice received the alternate form on the second administration.

Attitudes Toward Parenting A 22-item measure combining items in random order from three independent scales of constructs similar to the three PQ factors. Eleven items came from Olsen et al.'s (2002) Psychological Control scale. Sample items are "If the child hurts the parent's feelings, the parent stops talking to the child until he/she pleases the parent again," and "A parent tells the child that he/she gets embarrassed when the child does not meet his/her expectations." Six items came from Shelton et al.'s (1996) Positive Parenting scale of the Alabama Parenting Questionnaire. Sample items are "A parent compliments the child when he/she does something well" and "A parent rewards or gives something extra to the child for obeying the parent or behaving well." Five items are from Deater-Deckard et al.'s (2003) Attitudes toward Spanking scale. Sample items are "Parents should spank their children when the children need it," and "Spanking does not harm children." This measure was administered at Time 2. The instructions read as follows:

Please rate each item below by indicating how much you agree or disagree with it as a method or view of parenting.

The five ratings choices were *strongly agree* (5), *agree* (4), *unsure or depends* (3), *disagree* (2), and *strongly disagree* (1), which are the choices used by Deater-Deckard

et al. (2003) in the Attitudes toward Spanking Scale. Cronbach's alphas for the three subscales in the current study ranged from .84 to .92.

Procedures

The procedures for Study 3 were analogous to Study 2, except that participants at Time 1 were asked to create a personal identification code to link their online responses at Times 1 and 2. Only entries where the personal identification code was entered identically at both administrations were used for the test–retest reliability study.

Results

As displayed in Table 6, test–retest reliability coefficients for the three PQ factors were .68 (SF), .72 (CF), and .80 (PD). Internal consistency coefficients were .83 (PD), .91 (SF), and .93 (CF). Table 6 shows that Pearson correlations between independent scales and the PQ factors ranged between .61 and .70 for pairs that were hypothesized to be related to one another and between $-.54$ and $.42$ for other pairs. Comparisons using Fisher's z showed significantly higher correlations for hypothesized pairs than other pairs ($ps < .05$).

Discussion

This study sought to develop a new inventory of attitudes about parenting across a range of childrearing practices, including behaviors potentially associated with child maltreatment. The AAPI and AAPI-2 (Bavolek 1984; Bavolek and Keene 1999) have frequently been used to measure childrearing attitudes with populations considered at risk of child abuse or neglect. In contrast to the AAPI's exclusive

focus on inappropriate or deficient parenting practices, the PQ assesses views about a continuum of childrearing practices, including positive parenting patterns associated in prior research with adaptive child outcomes and negative parenting associated with maladaptive child outcomes (e.g., Armistead et al. 2002; Baumrind 1971; Bornstein 1989; Steinberg et al. 1992). We developed the PQ using a sequence of steps assessing its structure and psychometric properties in order to create a psychometrically sound measure.

The overall results of our three studies exploring the content validity, factor structure, ethnic and gender effects, test–retest reliability, and content validity of the Parenting Questionnaire suggest that the PQ is a reliable, stable, and valid measure of attitudes toward parenting with three distinct factors. Subject matter experts provided evidence of the content validity of questionnaire items by endorsing the appropriateness of items to their hypothesized content areas and likelihood of item ratings to vary across cultures. The EFA confirmed three of the four hypothesized factors, with most retained items loading onto factors consistent with our original item development. The high internal consistencies and pattern of factor correlations suggest that the PQ has three factors: Critical Feedback (CF), reflecting harsh, demeaning, or guilt-inducing practices; Supportive Feedback (SF), positive, warm, or reasoning-based practices; and Physical Discipline (PD), physical control or correction of child behavior. Test–retest findings demonstrated strong temporal stability for the PQ factors, and convergent validity findings show a pattern of correlations between independent scales and PQ factors consistent with hypothesized expectations. Below, we discuss aspects of the EFA that differed from our expectations, the effects of gender and ethnicity on the PQ factors, limitations of the study, and implications for future research.

Table 6 Test–retest reliability ($N = 92$) and convergent validity ($N = 142$) for 63-item Parenting Questionnaire (PQ)

PQ factor	Test–retest reliability r (n)	Internal consistency α (n)	Correlation with validity scales r (n)		
			Psychological control (11 items)	Positive parenting (6 items)	Attitudes toward spanking (5 items)
Critical feedback (CF) (26 items)	.72** (78)	.93 (117)	.61** (117)	$-.54^{**}$ (117)	.40** (117)
Supportive feedback (SF) (26 items)	.68** (77)	.91 (120)	$-.30^{**}$ (120)	.70** (120)	$-.27^{**}$ (120)
Physical discipline (PD) (11 items)	.80** (87)	.83 (126)	.42** (126)	$-.23^{*}$ (126)	.68** (126)

Italicized correlations reflect hypothesized positive relationships between factors and validity scales

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

We originally conceptualized four core areas of parenting that research suggested may differ across groups of varying backgrounds or experiences, including methods of communicating positive attention and affection, exerting physical discipline, providing evaluative feedback, and delegating responsibility to children. The factor analysis provided support for the constructs represented in the first two areas by identifying the Supportive Feedback and Physical Discipline factors, respectively; however, the results for the third factor, Critical Feedback, were somewhat different than we had initially conceptualized, and the fourth factor was not supported. Most items loading onto Critical Feedback were created originally for the evaluative communication area, designed as words or gestures that may convey a message that the child or his/her behavior is inappropriate, wrong, or unworthy. Negative evaluative feedback of this sort has been conceptualized as a psychologically oriented form of control (cf. Barber 1996; Becker 1964; Schaefer 1965; Steinberg 1990), which at higher levels could become psychological or emotional maltreatment. Barber (1996, p. 3296) defined psychological control as control attempts that intrude into the psychological and emotional development of the child. Psychological control differs from behavioral control in that the former emphasizes shaming, guilt induction, love withdrawal, and intrusiveness, as opposed to physical means to manage the child's behavior. Inspection of the individual item factor loadings (Table 4) shows that the Critical Feedback factor includes both psychological and physical control items, several of which suggest retaliation or humiliation as a motive rather than discipline per se. In order to capture the broader and more negative tone of items loading onto this PQ factor, we labeled it Critical Feedback. Further research will be important to determine the generality of this factor pattern with parents and how the factors relate to other measures of parenting and parent-child relationships.

In contrast to the empirical support provided for three of the four hypothesized factors, the factor analysis did not support Delegation of Responsibility (DR) as an independent factor. We had conceptualized DR to reflect practices in which the child was expected to perform tasks or make decisions to meet family needs, fulfill family expectations, or promote independence, which could in some cases represent child neglect. Neglect is often viewed as an act of omission or failure to provide for the child's basic needs, as opposed to abuse, which is an act of commission. Research on neglect has been complicated by definitional vagueness about what constitutes a child's basic needs, whether parental failure to provide is intentional, the consequences to the child for failure to provide, and other contextual factors (Miller-Perrin and Perrin 2007). These issues or others may have contributed to the lack of empirical

support for a factor related to Delegation of Responsibility in this study. It is also possible that the format of PQ items, in which respondents rate the acceptability of a parent's behavior in response to a specific child and situation, is not well suited to assessing general developmental expectations for parental structure and involvement.

Tests of the effects of gender and ethnicity on the three PQ factors revealed significant differences for both variables on all three factors as well as a significant interaction between gender and ethnicity for the Supportive Feedback factor. For the total group, males had higher mean ratings (i.e., rated items as more acceptable) on Critical Feedback and Physical Discipline factors and had correspondingly lower ratings on Supportive Feedback than females. This pattern is consistent with some prior research showing males to have more accepting attitudes of corporal punishment than females (Flynn 1998). Ethnicity findings varied across the PQ factors, with relatively stronger effects for Physical Discipline and Supportive Feedback ($\eta^2 = .029$ and $.046$, respectively) than for Critical Feedback ($\eta^2 = .010$). Black participants had higher Physical Discipline factor scores than Asian, Hispanic/Latino, White, and Mixed participants; further Asians had higher Physical Discipline scores than Hispanic/Latino and White participants. These findings fit with the relatively more favorable attitudes about corporal punishment reported for Blacks and Asians in some prior research (e.g., Flynn 1998; Jambunathan et al. 2000). Ethnicity comparisons with the Other group in the current study were not interpretable due to the varied ethnicities listed by participants who self-identified as Other.

Post-hoc tests examining the significant interaction between gender and ethnicity for the Supportive Feedback factor revealed significantly lower ratings for Black males than for all other ethnic groups. By contrast, for females, the overall test was significant, but no pairwise comparisons reached significance. Black males and females endorsed similar levels of acceptability for Critical Feedback and Physical Discipline factors, but Black males endorsed lower levels of acceptability on the Supportive Feedback factor than any other groups. It is possible that this pattern is related to gender socialization experience and norms of parenting among Blacks, or that Black males might perceive displays of affection or other positive parenting practices as undermining masculinity. Systematic replication using the PQ with culturally diverse groups will help to determine the generality of this pattern.

Although the initial tests of factor structure, reliability, and convergent validity of the PQ are encouraging, some important limitations should be addressed in future research. First and most important, the current study explored the PQ with college students, the vast majority of who were not yet parents, whereas the ultimate goal is to

establish the PQ as a reliable and valid instrument with parents. Therefore, studies of the PQ with parents are essential. Our goal in publishing the PQ at this stage is to enable and encourage research on its use with parents. Independent analyses of the PQ across diverse samples of parents will provide valuable information on the replicability of the current findings.

Second, tests of the ecological validity of the PQ are needed to determine whether the three PQ factors are each independently associated with other indices of the conceptual factors they represent. As Holden and colleagues (Holden and Buck 2002; Holden and Edwards 1989) noted, parent attitude measures have rarely been tested for their concordance with parent self-reported or observed behavior, and these tests have often shown weak relationships. It will be important to investigate whether parent attitudes reflected on the PQ correlate with parent behavior, as well as with measures of parenting style dimensions, child maltreatment risk, or child behavior. Third, the number of PQ items (63) is greater than ideal for use as a screening measure with at-risk parents or in research studies. We expect that further research with parents will identify a subset of items with greater power to identify differences across groups. This would enhance its feasibility for use in applied research.

Despite the acknowledged limitations of the current research, initial findings suggest that the PQ is a potentially useful method for assessing views about the acceptability of a range of positive and negative parenting behaviors. The next step is to examine the PQ's factor structure with parents, and further to determine whether the gender and ethnicity differences on the PQ found with college students are replicated with parents. Given the dearth of psychometrically validated parental attitude measures, the PQ could be a valuable resource for developmental, cross-cultural, and clinical researchers in pursuit of greater understanding of the role of parental attitudes in childrearing.

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