

Assessing the Validity of Parenting Measures in a Sample of Chinese Adolescents

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[Andrew J. Supple](#), Gary W. Peterson, Kevin R. Bush. (2004) Assessing the Validity of Parenting Measures in a Sample of Chinese Adolescents. *Journal of Family Psychology* 18(3), 539-544.

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Abstract:

The purpose of this study was to assess the construct validity of adolescent-report parenting behavior measures (primarily derived from the Parental Behavior Measure) in a sample of 480 adolescents from Beijing, China. Results suggest that maternal support, monitoring, and autonomy granting were valid measures when assessing maternal socialization strategies and Chinese adolescent development. Measures of punitiveness and love withdrawal demonstrated limited validity, whereas maternal positive induction demonstrated little validity. The major implications of these results are that measures of “negative” parenting that included physical or psychological manipulations may not have salience for the development of Chinese adolescents. Moreover, researchers and clinicians should question the applicability of instruments and measures designed to assess family process when working with individuals in families from diverse cultural backgrounds.

Article:

Researchers in the human and family sciences are increasingly interested in investigating similarities and differences in parental socialization processes across cultural groups. One such hypothesized difference includes the characterization of parents from China as emphasizing interdependence, filial piety, and autocratic parenting, whereas U.S. parents are described as more consistently valuing autonomy and warm parent-child relations (Chao, 1994; Ho, 1986). The research in this area is limited, as few studies have focused on direct comparisons of parenting and parental influence on adolescent development. Moreover, inconsistent results are obtained when comparing samples from the West (e.g., the United States and Australia) with samples from East Asia (Hong Kong, Taiwan, or China). Such inconsistency may result because current measures of parenting are based on studies of families from the American majority culture (i.e., White, middle class). There is a demonstrable need, therefore, to assess the validity of frequently used parenting measures for use with samples from China.

Scholars question the use of Western constructs to study parental socialization in Asian families without considering how such constructs may or may not capture meaningful behaviors among families from more collectivistic orientations (Chao, 1994; Lam, 1997). These arguments are particularly convincing given that U.S. childrearing practices originate in Western cultural traditions emphasizing personal achievement as part of an overall theme of individualism (Lam, 1997). Despite such concerns, Western measures of maternal acceptance and rejection, styles of control (Berndt, Cheung, Lau, Hau, & Lew, 1993; Steinberg, Dornbusch, & Brown, 1992; Lau & Cheung, 1987), warmth, and autonomy granting (Berndt et al., 1993; Bush, Peterson, Cobas, & Supple, 2002) have been used in studies of Chinese Americans, Chinese from Hong Kong, and Chinese from the People's Republic of China. Although the use of Western constructs and measures is common, scant evidence exists in reference to the validity of these approaches when studying adolescents from mainland China. The current study addresses these issues by assessing the construct validity of six measures of maternal parenting behaviors with a sample of 480 Chinese adolescents.

Research Goals and Expectations

In the current study we use a confirmatory factor analysis to assess the validity of six parenting measures from the Parent Behavior Measure (Henry, Wilson, & Peterson, 1989). These measures are representative of parental warmth and control, the key constructs related to parental influence on adolescent development. Conformity to parental expectations and academic orientation were selected as criterion variables because of their relevance to Chinese socialization, which emphasizes an orientation toward group harmony and academic success (Ho, 1986; Stevenson, Chen, & Lee, 1992). An additional criterion, self-esteem, was chosen given recent focus on parental influence on self-esteem among Chinese adolescents (Shek, 2002).

We expected maternal support, monitoring, and positive induction to demonstrate a high degree of construct validity. Previous research suggests that parental support is positively associated with adolescent self-esteem in Chinese adolescents (Shek, 2002). Moreover, maternal monitoring and positive induction are similar conceptually to parental socialization strategies frequently associated with Chinese parenting (e.g., *chiao shun* and *guan*; Chao, 1994; Ho, 1986). Our expectations regarding punitiveness and love withdrawal were more equivocal because although Chinese parents are often characterized as harsh, strict, and using shaming to control children, there is controversy regarding the applicability of these concepts to Asian parenting. Although Chinese families are typically characterized as emphasizing a collectivistic orientation, we expected autonomy granting to be a valid parenting construct, as recent studies of adolescents in Hong Kong and mainland China have suggested that youths desire autonomy and that autonomy granting positively predicts self-esteem (Bush et al., 2002; Lau & Yeung, 1996; Yau & Smetana, 1996).

Method

Sample

The sample for this study consisted of 480 adolescents selected from six state-funded high schools in Beijing that are representative of a variety of test score criteria. See Table 1 for a detailed description of the sample. Although selected through a convenience strategy, the sample demonstrated a wide range of sociodemographic characteristics.

Table 1
Descriptive Statistics of the Sample

Variable	%
Age 12–15	44
Age 16–19	56
Female	50
Mother education level	
College or higher	28
High school	22
Middle or technical school	45
Grade school	5
Father educational level	
College or higher	47
High school	20
Middle or technical school	31
Grade school	2
Most highly competitive schools	44
Competitive schools	24
Less competitive schools	32

Note. $N = 480$. Mean age was 15.4 ($SD = 1.7$).

Procedure

Teachers, trained according to a standard protocol outlined by the project investigators, administered the questionnaires to 497 students in classrooms while researchers collected consent forms signed by both the adolescents and a parent. Consent procedures were approved by the Institutional Review Board office at Washington State University (consent was not acquired by any agencies in China), and consent was obtained from both the participating adolescent and his or her parent. In the current study we analyzed adolescent responses in reference to mothers' parenting behaviors for simplification of presentation (adolescent reports of fathers' behaviors were omitted from the study). Adolescents with substantial missing data were eliminated from the study (resulting in a sample size of 480) and, alternatively, missing values on individual parenting items were replaced with mean substitution.

Measures

The questionnaire for this study consisted of items measuring adolescent and parent sociodemographic variables, adolescent outcomes, parenting behaviors, and aspects of parental authority. During questionnaire development back-translation techniques were used to ensure that the Chinese version of the questionnaire conveyed item meanings that were as comparable as possible to those written in English.

The majority of maternal parenting items are from the Parent Behaviors Measure (PBM), a self-report instrument that measures adolescent perceptions of several dimensions of behavior by mothers and fathers (for a detailed discussion of the PBM measures, see Bush et al., 2002, and Henry et al., 1989). Responses were rated on either a 5-point scale, with 0 = never and 4 = always, for all parenting items except autonomy granting or on a 4-point scale, with 1 = strongly disagree to 4 = strongly agree for autonomy granting and the criterion variables. Likert-type responses were used for all the scale items. Items were recoded so that higher scores on each item indicated greater frequency of behaviors, or more agreement by the adolescent with each statement (see Appendix for a full list of items). Cronbach's alpha for the parenting measures ranged from .69 to .87.

Criterion measures included conformity to maternal expectations, self-esteem, and academic effort/orientation. Conformity to parental expectations (8 items) measured adolescent conformity to parental wishes regarding leisure activities, friends, and goals. Five items measuring self-esteem were taken from the Rosenberg Self-Esteem Scale, with items measuring derogatory feelings toward the self omitted, as previous research suggested that these items are not appropriate for Chinese samples (Hamid & Cheng, 1995). Academic orientation (5 items) assessed adolescent attitudes regarding the importance of education and enjoyment in school. Sample reliability for these scales ranged from .68 to .80.

Results

Analyses and Strategy for Assessing Construct Validity

Using a CFA procedure to assess the validity of the parenting measures, we examined (a) all measurement items (the latent factor structure based on model fit), (b) concurrent validity of the parenting constructs, and (c) criterion validity of the parenting constructs (Kline, 1998). More specifically, we specified a model where 39 parenting items were hypothesized to load onto six factors (see the Appendix), with correlational paths among the parenting factors and correlational paths between the parenting factors and the criterion variables. To the extent that all individual measurement items demonstrate large and significant factor loadings on the appropriate specified latent construct and the specified model provides a reasonable fit to the data, there is evidence for the validity of the measurement items. Correlations among parenting factors (in a theoretically expected manner) provide an indication of concurrent convergent and concurrent divergent validity. For example, positive associations among measures theoretically linked with an authoritative parenting style (i.e., maternal support, monitoring, induction, and autonomy granting) would provide evidence to the concurrent convergent validity of each measure. The final portion of our analyses included an examination of evidence for

criterion validity, assessed quantitatively by examining correlations between the parenting factors and the criterion variables (Kline, 1998).

Evidence for Validity

Standard indicators of model fit suggested that the hypothesized factor structure provided a poor fit for the observable data, $\chi^2(687, N = 480) = 2,257, p < .01$; goodness-of-fit index (GFI) = .795; adjusted goodness-of-fit index (AGFI) = .768; root mean square (RMS) = .068. We created a respecified model based on modification indices that were consistent with theory by dropping items that demonstrated cross-loadings or allowing correlated errors. For example, the positive induction items were all dropped from the revised model, as each of these items loaded onto factors in a manner that was inconsistent with theory (i.e., most items loaded onto the punitiveness factor). A total of 12 items were dropped from the analyses and three correlations among error terms were added to the model (see the Appendix for items that were dropped). All modifications to the revised model were justified both substantively and empirically. The modified model demonstrated an adequate fit, as the GFI (.919), AGFI (.900) and RMS (.037) all attained acceptable levels; the chi-square for this model was significant, $\chi^2(311, N = 480) = 591, p < .01$; however, the chi-square to degrees of freedom ratio was less than 2. Moreover, the remaining items all demonstrated factor weights (interpreted as reliability coefficients) ranging from .40 to .82, suggesting a high degree of validity for individual indicators and their respective parenting constructs.

An examination of correlations among the parenting factors revealed a high degree of concurrent validity for each parenting construct. Maternal support, monitoring, and autonomy granting all were positively associated with one another and either unrelated or negatively related to punitiveness and love withdrawal, whereas the punitiveness and love withdrawal factors were strongly correlated with one another (see Table 2). Taken together, these results suggest a high degree of concurrent validity (both convergent and divergent) for these parenting constructs.

Table 2
Correlations Among the Latent Factors and Adolescent Criterion Variables

Variable	1	2	3	4	5
1. Support	—				
2. Monitoring	.33**	—			
3. Autonomy	.44**	.15**	—		
4. Love withdrawal	-.07	.02	-.13*	—	
5. Punitiveness	-.29**	-.07	-.27**	.85**	—
6. Conformity	.33**	.30**	.18**	-.05	-.06
7. Academic orientation	.19**	.22**	.17*	-.01	-.12*
8. Self-esteem	.21**	.23**	.34**	.00	-.07

* $p < .05$. ** $p < .01$.

Results also suggest a high degree of criterion validity for the support, monitoring, and autonomy granting measures, as each demonstrated positive associations with adolescent conformity, self-esteem, and academic orientation (see Table 2). With the exception of a negative relationship between punitiveness and academic orientation, there was limited evidence for the criterion validity of the punitiveness and love withdrawal measures as neither was consistently associated with the criterion variables.

Age and Gender Differences

We conducted additional analyses to assess potential variation in these results by adolescent gender and age. With gender (male vs. female) and age (older [age 16–19 years] vs. younger [age 12–15 years]) constraints placed on the factor loadings and on the correlations among parenting constructs, few differences were found. In reference to criterion validity, the results were relatively consistent by gender and by age with one exception. There were a number of age-related differences in the correlations between the parenting factors and the conformity measure. However, these differences appeared to reflect age variation in responses to some items

assessing conformity rather than age-related differences in the parenting measures. That is, once age differences in the factor structure of the conformity measure were taken into account, correlations between the parenting factors and the conformity criterion variable were similar across age groups. Across the criterion variables, only one consistent difference was found by age: For older adolescents, punitiveness was negatively associated with conformity, self-esteem, and academic orientation but was not significantly related to these same outcomes for the younger adolescents. The general pattern of results, however, provided evidence for the validity of these parenting measures similarly for boys and girls and for younger and older adolescents.

Discussion

The results of this study suggested that, consistent with our expectations, maternal support, monitoring, and autonomy granting demonstrated a high degree of construct validity based on significant and large item loadings, meaningful correlations with other parenting factors, and consistent positive associations with the criterion measures. More limited support was found for the punitiveness and love withdrawal measures, as these two parenting factors demonstrated few significant correlations with the criterion factors. Further analyses suggested, however, that punitiveness had greater criterion validity when considering older Chinese adolescents. Contrary to our expectations, maternal positive induction failed to emerge as a viable latent factor in this sample of Chinese adolescents.

These results imply that measures of more authoritative styles of parenting demonstrated the most consistent validity in this sample. Consistent with previous findings that support, behavioral control (i.e., monitoring), and autonomy granting are positive predictors of academic achievement and self-esteem among Chinese adolescents (Lau & Cheung, 1987; Lau & Yeung, 1996; Stevenson et al., 1992), our results suggest that these dimensions of parenting are important aspects of the socialization process for adolescents in Chinese families. Results in reference to the positive influence of autonomy granting on adolescent outcomes support recent arguments that contemporary Chinese youths, as a result of socioeconomic changes leading to a Westernization of Chinese culture, increasingly desire freedom from parents and value individuality (Lau & Yeung, 1996). It is plausible, therefore, that Chinese youths who experience increasing autonomy from parents (a desirable event) develop positive feelings towards the self and conform to parental expectations even in a relatively collectivistic culture.

Contrary to our expectations, there was little support for the viability of the positive induction measure. This result is noteworthy as the use of verbal encouragements to shape adolescent behavior is similar conceptually to the Chinese notion of *guan* that is often described as an important aspect of parental socialization. Failure to establish construct validity for the punitiveness or love withdrawal measures may lend support to arguments that measures of authoritarian or harsh parenting fail to capture the most salient parenting strategies among Chinese parents (i.e., Chao, 1994). However, these results did point to possible age differences in the deleterious influence of harsh parenting on adolescent outcomes among the Chinese.

Future Directions

In this study we provided a first step in examining the validity of Western measures of parenting for studying parental socialization in families from China by quantitatively assessing the construct validity of six measures of maternal support and control in a sample of Chinese adolescents. Given the limitations of this study, future studies should (a) consider a wider range of criterion variables in determining the validity of parenting measures for Chinese adolescents, (b) include more diverse samples to better understand the regional and urban/rural variation in relationships between parenting and adolescent outcomes, (c) examine the validity of behaviors by Chinese fathers, (d) include parental reports or objective measures of criterion measures for a more robust test of construct validity, (e) focus on cultural interpretations or “meaning” that young people from various cultures ascribe to parenting behaviors and (f) endeavor to generate measures that capture indigenous concepts relevant to Chinese parental socialization.

Although increased interest in cross-cultural research has led to innovative studies focusing on parental influence on adolescent outcomes, too little attention has been devoted to issues related to the validity of measures developed in the West for collecting data on individuals from China. This study suggested that measures of parental support, monitoring, and autonomy granting demonstrated a high degree of validity in a sample of Chinese adolescents. Punitiveness, love withdrawal, and positive induction were not adequately evaluated. These results underscore the importance of considering measurement validity when conducting cross-cultural research. For clinicians working directly with families from diverse cultural backgrounds, care should be taken when employing assessments (tests or instruments) of family or individual functioning that have been standardized on White samples. Equally important, clinicians should consider that traditional conceptions of negative parenting (i.e., authoritarian, punitive, psychologically manipulative) may not be particularly salient for adolescents in families of Chinese heritage.

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APPENDIX A: Measurement Items

Appendix Measurement Items

Parenting Measures

Support

- This parent has made me feel that he/she would be there for me if I needed him/her.
- This parent seems to approve of me and the things that I do.
- This parent tells me how much he/she loves me._a
- This parent says nice things about me._a

Positive Induction

- This parent explained to me how good I should feel when I did something he/she liked. (omitted)
- Over the past several years, this parent explained to me how good I should feel when I shared things with other family members. (omitted)
- This parent explains to me how good I should feel when I do what is right. (omitted)
- This parent explains to me when I share things with other family members that I am liked by other family members. (omitted)
- This parent tells me how good others feel when I do what is right. (omitted)

Monitoring

- This parent knows where I am after school.
- I tell this parent where I am going to be when I go out.
- When I go out, this parent knows where I am.
- This parent knows the parents of my friends. (omitted)
- This parent knows who my friends are.
- This parent knows how I spend my money.

Autonomy Granting

- This parent gives me enough freedom.
- This parent allows me to choose my friends without interfering._b
- This parent allows me to decide what is right and wrong without interfering.
- This parent allows me to decide what clothes to wear without interfering.
- This parent allows me to choose my own dating partner without interfering._b

Appendix (continued)

Autonomy Granting (continued)

- This parent has confidence in my ability to make my own decisions.
- This parent encourages me to help in making decisions about family matters.
- This parent allows me to make my own decisions regarding career goals._c
- This parent allows me to make my own decisions about educational goals._c
- This parent lets me be my "own person" in enough situations.

Punitiveness

- This parent hits me when he/she thinks I am doing something wrong.
- This parent does not give me any peace until I do what he/she says.
- This parent punishes me by not letting me do things.
- This parent yells at me a lot without good reason.
- This parent punishes me by not letting me do things with other teenagers.
- This parent tells me that I will be very sorry that I wasn't better behaved. (omitted)
- This parent tells me that someday I will be punished for my behavior. (omitted)
- This parent is always finding fault with me.
- This parent punishes me by sending me out of the room. (omitted)
- This parent punishes me by hitting me. (omitted)

Love Withdrawal

- This parent tells me that if I loved him/her I would do what he/she wants me to do.
 - This parent tells me about all the things he/she has done for me. (omitted)
 - This parent will not talk to me when I displease him/her.
 - This parent avoids looking at me when I have disappointed him/her. (omitted)
-

Criterion Measures

Conformity to Parental Expectations

- If this parent did not want me to go to a particular movie, then I would not go.
- If this parent did not like me to talk in certain ways, then I would stop talking that way.
- If this parent wanted me to go to a different school, then I would go to the school that he or she wanted me to attend.
- If this parent wanted me to go around with a particular group of friends, then I would do as this parent wanted me to do.
- If this parent wanted me to attain a certain level of education, then I would try to attain this level of education.
- If this parent wants me to marry a particular person in the future, then I would marry that person.
- If this parent wanted me to live at home, then I would do so as long as the parent wished.
- If this parent wanted me to choose a particular career, then I would try to prepare for this career.

Self-Esteem

- On the whole I am satisfied with myself.
- I am able to do things as well as most other people.
- I take a positive attitude toward myself.
- I feel that I am a person of worth at least on an equal plane with others.
- I feel that I have a number of good qualities.

Academic Orientation

- I try hard in school.
 - Grades are very important to me.
 - I usually finish my homework on time.
 - Education is so important, it's worth putting up with things about school that I don't like.
 - In general, I like school.
-

Note. The items were primarily derived from the Parenting Behavior Measure (Bush et al., 2002; Peterson, Bush, & Supple, 1999). The self-esteem items are derived from the Rosenberg Self-Esteem Scale (Rosenberg, 1989). "Omitted" denotes items dropped from the final confirmatory factor analysis model. Item pairs with the same subscript indicate correlated errors.