# Parenting Stress Index, Full-length Version [1]

The PSI is a very well-researched and widely used measure of parenting stress, which has been shown to be sensitive to intervention effects across a variety of studies, populations, and treatments. This measure assesses three areas of stress in the parent-child relationship: (a) child characteristics, (b) parent characteristics, and (c) stress stemming from situational or demographic conditions. High levels of stress in the parenting relationship, assessed using the PSI, have been associated with problems in parenting behavior, impaired parent-child behavior, and child psychopathology. The PSI categories may be used toward: “(a) screening for early identification, (b) assessment for individual diagnosis, (c) pre-post measurement of intervention effectiveness, and (d) research aimed at studying the effects of stress on parent-child interactions and in relation to other psychological variables.” (Abidin, 1995, p. iv)

## Overview

**Acronym:**

PSI

**Authors:**
Abidin, Richard R.
**Citation:**

Abidin, R.R. (1995). Parenting Stress Index, Third Edition: Professional Manual. Odessa, FL: Psychological Assessment Resources, Inc.

**Contact Information:**

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**Cost:**
Cost Involved
**Copyrighted:**
Yes
**Domain Assessed:**
Anxiety/Mood (Internalizing Symptoms)
Externalizing Symptoms
Health
Parenting
Services and Systems
**Age Range:**
10-12
**Measure Type:**
Screening
**Measure Format:**
Questionnaire

**Information Provided:**
Standard Scores
Strengths
Written Feedback From a Computer Program

## Administration

**Number of Items:**
120
**Average Time to Complete (min):**
20
**Reporter Type:**
Parent/Caregiver
**Average Time to Score (min):**
20
**Periodicity:**
Unknown
**Response Format:**

In general, items are scored using the following 5-point scale: 1) SA (Strongly Agree), 2) A (Agree), 3) NS (Not Sure), 4) D (Disagree), 5) SD (Strongly Disagree).

For life stress items, reporters indicate whether the events have occurred (Yes/No) in the past 12 months.

**Sample Items:**

| Domains | Scale | Sample Items |
|---|---|---|
| Child Domain | Distractability | Not available |
| | Adaptability (child) | Not available |
| | Reinforces Parent | Not available |
| | Demandingness (child) | Not available |
| | Mood (child) | Not available |
| | Acceptability (child) | Not available |
| | Competence (child) | Not available |

**Materials Needed:**
Paper/Pencil

## Training

**Training to Administer:**
Manual/Video
**Training to Interpret:**
Manual/Video
Prior Experience in Psych Testing/Interpretation

## Parallel or Alternate Forms

**Parallel Forms:**
No
**Alternate Forms:**

No
**Different Age Forms:**
No
**Altered Version Forms:**
Yes
**Alternative Forms Description:**

There is a short form of the PSI, consisting of 36 items from this version. A review of the short form is included in the NCTSN Measure Review Database.

## Psychometrics

**Norms:**
Clinical Populations
Age Groups
Demographics
**Notes on Psychometric Norms:**

From Abidin (1995) The original norm group consisted of 2,633 mothers aged 16-61 (M=30.9) and their children aged 1 month to 12 years (M=4.9, SD=3.1). The majority (41%) were recruited from well-child pediatric clinics in Central Virginia. Other participants were recruited from public school day care centers, public schools, public and private pediatric clinics, and a health maintenance program. Participants' ethnicity was 76% White, 11% African American, 10% Hispanic, 2% Asian, and 1% Other. Socioeconomic status, education, and employment status were widely distributed across the sample. Income: 27% of the sample had a total annual family income less than $20,000. Marital status: 77% of the mothers in the sample were married, 14% were divorced, 4% were separated, 4% never married, and 1% were widowed. The mean number of children living in the home was 2.1 (SD = 1.2). Normative data were also collected from 200 fathers aged 18-65 (M=32.1, SD=6.01) Ethnic group composition was approximately 95% White and 5% African-American. Education: 48% college graduates, 20% vocational training or some college, 23% high school graduates, and 9% less than 12 years of education. In comparison to mothers, fathers show lower scores on many PSI scales. Separate norms were collected using the Spanish version of the PSI with a sample of 223 Hispanic parents recruited from pediatric clinics of a major medical center in New York City. Mean age of mothers was 30.8 years (SD=7.4), mean age for fathers was 34.5 (SD=7.8), and the mean age for target children was 51.7 months (SD=39.6%). Marital status: 64% married, 14% single, 14% separated, 6% divorced, and 2% widowed. Socioeconomic status was widely distributed. Mothers' birthplace included: Puerto Rico (29%), Dominican Republic (22%), United States, (21%), Ecuador, (12%), and other Spanish-speaking countries (16%). Fathers' birthplace included: Puerto Rico (38%), Dominican Republic (22%), United States (15%), Ecuador (11%), and other Spanish-speaking countries (14%). Using Hollingshead Social Class Status of Family Classification: 5.4% was classified as I (high), 12.2% was classified as II, 23.4% was classified as III, 26.6% was classified as IV, and 32.4% was classified as V (low).

**Clinical Cutoffs:**
Yes
**Clinical Cutoffs Description:**

If Yes, Specify Cutoffs: The normal range for scores is within the 15th to 80th percentiles. High scores are considered to be scores at or above the 85th percentile.

**Reliability:**

| Type: | Rating | Statistics | Min | Max | Avg |
|---|---|---|---|---|---|

| Type: | Rating | Statistics | Min | Max | Avg |
|---|---|---|---|---|---|
| Test-Retest-# days:60 | Acceptable | Pearson's r | 0.63 | 0.96 | 0.83 |
| Internal Consistency | Acceptable | Cronbach's alpha | 0.7 | 0.95 | 0.81 |
| Inter-rater | | Unknown | | | |
| Parallel/Alternate Forms | | | | | |

**References for Reliability:**

Data are from Abidin (1995). Data in the table (above) are from the normative sample. TEST-RETEST RELIABILITY Four studies have examined test-retest reliability. Studies used intervals ranging from 3 weeks to 1 year. In general, correlations were above .60 (with the exception of the Child Domain 1-year reliability coefficient, which was .55). The range of scores reported above is from a study involving 30 mothers from a group pediatric practice with a test-retest administration period of 1 to 3 months. This study reported the following scores: Child Domain (.63), Parent Domain (.91), Total Stress (.96). INTERNAL CONSISTENCY (Cronbach's alpha) Normative sample: Child Domain Total (.90), Adaptability (.76), Acceptability (.79), Demandingness (.73), Mood (.73), Distractibility/Hyperactivity (.82), Reinforces parent (.83) Parent Domain Total (.93), Depression (.84), Attachment (.75), Role Restriction (.79), Competence (.83), Isolation (.82), Spouse (.81), Health (.70) Total Stress (.95) Hauenstein et al. (1987): A validation sample: 1) Child Domain subscales=.59-.78, 2) Parent Domain subscales=.57-.79, and 3) Total Stress and Domain scores=all >.90.

**References for Content Validity:**

(Summarized from Abidin, 1995) Items were developed from a comprehensive listing of dimensions identified based on review of literature on infant development, parent-child interaction, attachment, child abuse and neglect, child psychopathology, childrearing practices, and stress. Items were piloted on 208 mothers of children younger than age 3 who brought their children to well-child clinics. Based on the pilot, it was determined that most mothers completed the measure in 20-30 minutes and that it was understandable to those who had at least a 5th-grade education. A panel of six professionals in the area of early parent-child relationships rated items for relevance and adequacy of construction. Ultimately, the number of items was reduced through field tests and examination of correlations between items and domain scales, with items not contributing to domains or subscales deleted.

**Construct Validity:**

| Validity Type | Not known | Not found | Nonclincal Samples | Clinical Samples | Diverse Samples |
|---|---|---|---|---|---|
| Convergent/Concurrent | | | Yes | Yes | Yes |
| Discriminant | | | Yes | Yes | Yes |
| Sensitive to Change | | | Yes | | Yes |
| Intervention Effects | | | Yes | Yes | Yes |
| Longitudinal/Maturation Effects | | | Yes | | Yes |
| Sensitive to Theoretically Distinct Groups | | | Yes | Yes | Yes |
| Factorial Validity | | | Yes | | Yes |

**References for Construct Validity:**

As noted in the reference section, the PSI has been used in well over 500 studies. It is not possible to review all of them. The research summarized below focuses on looking at the use of the PSI with trauma and diverse populations and as a treatment outcome measure. The focus is also on literature published after 1995, when the manual was published. 1. Validity: This measure has been widely used and validated with a broad variety of populations including: mothers of developmentally delayed children, mothers of infants exposed to cocaine prenatally, clinical samples, parents of children with conduct disorders, parents of hyperactive children, parents of children with attention deficit disorder, depressed mothers, parents of children with various disabilities and physical illnesses, parents who have adopted children, grandparents, adolescents, and parents who have used in-vitro fertilization. It has also been used in attachment studies, language development studies, and treatment-outcome studies. Construct validity has been found in a wide variety of populations including a myriad of developmental issues, behavior problems, disabilities, illnesses, and ethnic backgrounds. The PSI manual, as well as the author's website, provides an exhaustive list of studies that can be referred to, depending on the relevant population. 2. Examples of treatment outcome studies include: Robbins, Dunlap, & Plienis, (1991), N=12, children and mothers participating in a preschool training project, Acton and During (1992), n=29, parents completing an aggression management training program for children with aggressive problems, Barkley et al. (1988), n=23, parents of children with ADD who got Ritalin dosages. The PSI has been used in numerous randomized trials of treatments for disruptive disorder including Webster-Stratton's treatment (e.g., Webster-Stratton & Hammond, 1997, Webster-Stratton, Hollinsworth, & Kolpakoff, 1989) and Parent-Child Interaction Therapy (e.g., Bagner & Eyberg, 2003; Nixon, Sweeney, Erickson, & Touyz, 2003; Nixon, Sweeney, Erickson, & Touyz, 2004). Treatment mothers show greater PSI reductions than did mothers of comparison group children, and reductions are maintained at follow-up. In another study, PSI scores were found to be related to participation in treatment for child behavior problems. Mothers who failed to attend a first appointment following referral had higher levels of parenting stress than those who did attend (Calam, Bolton, & Roberts, 2002). 3. PSI scores have been found to predict later child behavior problems in at-risk samples (Goldberg et al., 1997). In a longitudinal analysis, parenting stress in infancy due to the child's distractibility predicted Child Behavior Problems on the ECBI at age 7 (Benzies, Harrison, & Magill-Evans, 2004). 4. PSI scores differentiate between a number of different groups. Mothers of children with multiple diagnoses (ADHD/ODD or ADHD/ODD/CD) have higher PSI scores than did mothers of ADHD-only children (Ross et al., 1998). In a highrisk sample, PSI scores for mothers with five or more risks were significantly higher than for mothers with four or fewer risks (Nair et al., 2003). 5. Factorial validity was found in three separate analyses, one for each domain: Child Domain, Parent Domain, and overall. In the Child Domain, the 6 factors accounted for 41% of the variance. In the Parent Domain, the 7 factors accounted for 44% of the variance. Overall, the two domains as factors accounted for 58% of the variance. A factor analysis with Chinese (Hong Kong) mothers replicated this structure. However, analyses with African-American and Latina samples have found a 3-factor solution best fit the data (see Notes under "Use With Diverse Populations" for these studies). USE WITH TRAUMA POPULATIONS 1. PSI scores correlated with scores on the Child Abuse and Trauma Scale in a sample of mothers recovering from drug and alcohol addiction (Harmer, Sanderson, & Mertin, 1999). 2. Parents of children in treatment for sexual behaviors displayed high levels of parenting stress (total stress and child domain), with average scores in the 91st percentile. Biological parents scored significantly higher than did foster parents on total stress (Pithers, Gray, Busconi, & Houchens, 1998). 3. Multiple studies have shown correlations between PSI scores and Child Abuse Potential Inventory Scores (e.g., Holden, Willis, & Foltz, 1989, Rodriguez & Green, 1997). 4. Neglecting parents scored significantly lower on PSI scales than physically abusive parents (Holden, Willis, & Foltz, 1989). 5. In a sample of Hong Kong mothers, abusive mothers had higher scores than did nonabusive mothers on the Parent Domain, Child Domain, and Total PSI scores. PSI scores alone correctly classified 62.16% of cases as abusive or nonabusive. 6. A French-Canadian study (Lacharité, Éthier, & Couture, 1999) examined the sensitivity and specificity of the PSI with regard to discriminating maltreating from nonmaltreating mothers. (See

next section, #5, last paragraph.) USE WITH DIVERSE POPULATIONS 1. The PSI has been used in numerous studies of adolescent mothers. Interestingly, PSI scores were related to peer support but not to family support in one study of 66 adolescent mothers (Richardson, Barbour, & Bubenzer, 1995). 2. The PSI has also been used in numerous studies with low-income African American mothers. Hutcheson & Black (1996) report acceptable internal consistency and 6-month test-retest reliability. Factor analysis suggests a 3- factor solution best fit the data with Parent, Child, and Parent-Child Interaction factors. Parenting stress has been found to be related to observations of parenting behavior (Chang et al., 2004). 3. A Spanish version of the PSI is available from PAR, and its psychometric properties were investigated by Solis & Abidin (1991). A description of the population involved can be found under “Norms.” They found good internal consistency for domain scores and most subscales (alpha): Child Domain (.94), Adaptability (.65), Acceptability (.74), Demandingness (.58), Mood (.63), Distractibility/Hyperactivity (.65), Reinforces Parent (.76), Parent Domain (.92), Depression (.75), Attachment (.58), Restriction of Role (.74), Sense of Competence (.73), Social Isolation (.74), Relationship with Spouse (.76), Parent Health (.71), Total Stress (.94). Principal components analysis with a varimax rotation for a 2-factor solution (replicating procedures used with the original sample) did not result in a clean solution, and a 3-factor solution was identified based on the scree test and interpretability of the factors. Factor 1 was composed of Depression, Restriction of Role, Social Isolation, Relationship with Spouse, and Parental Health (all are Parent Domain subscales). Factor 2 included Reinforces Parent, Attachment, Acceptability, and Sense of Competence. This factor was identified as the “Parent-Child Interaction Factor.” Factor 3 included Adaptability, Demandingness, Mood, and Distractibility (all are Child Domain subscales). A subsample of mothers with children with a physical or mental handicap was compared to the remaining 200 mothers. They had higher scores on all domains and subscales except Sense of Competence and Attachment. Solís-Cámara et al. (2004) found intervention effects using the PSI with Spanishspeaking parents in Mexico. 4. Tam, Chan, & Wong (1994) examined the psychometrics of the PSI with 2 samples of Chinese mothers in Hong Kong. The first sample included mothers of children with mental retardation, autism, Down Syndrome, and also physically abusive mothers. This sample was considered to have high levels of stress. The second sample was recruited from the community. All mothers spoke Cantonese. A slightly modified version of the PSI (items 59 and 60 “slightly modified to suit the Hong Kong context”) was used. The results suggest good internal consistency for domain scores. Internal consistency ranged from good to poor for subscales. Reliabilities were as follows: Child Domain (.85), Adaptability (.65), Acceptability (.65), Demandingness (.69), Mood (.41), Distractibility/Hyperactivity (.40), Reinforces Parent (.63), Parent Domain (.91), Depression (.75), Attachment (.39), Restriction of Role (.81), Sense of Competence (.74), Social Isolation (.69), Relationship with Spouse (.67), Parent Health (.71), Total Stress (.93). Validity was supported by correlations with the General Health Questionnaire, Langner’s Stress Scale, the Global Assessment of Recent Stress Scale, and single-item measures of self-perceived parenting difficulty and self-perceived parenting pressure. PSI scores differentiated between high-stress and low-stress groups (categorized on the basis of responses to statements regarding stress from child care). Exploratory principal components factor analysis with a varimax rotation identified 2 factors with a structure similar to that found in Abidin (1983). Chan (1994) assessed 50 identified abusive mothers and 37 community sample nonabusive mothers of similar demographic and socioeconomic background. Both samples were recruited in Hong Kong. Abusive mothers had significantly higher scores on all three PSI domains (Child, Parent, and Life Stress). They also had statistically higher scores on the Acceptability, Mood, Reinforces Parent, and Attachment subscales. PSI scores correctly classified 62.2% of the mothers as abusive or nonabusive. 5. The psychometrics of the French-Canadian version of the PSI have also been studied in numerous studies. Bigras, La Freniere, & Dumas (1996) conducted regression analyses using the Dyadic Adjustment Scale, a rating of Insularity, and the Beck Depression Inventory. Each of these measures was moderately correlated with the PSI Parent and Child Domain scores. The Parent Domain score of the PSI was a better predictor of these variables than was the Child Domain. Lacharité, Éthier, & Couture (1999) examined the

sensitivity and specificity of the PSI in a sample of 81 maltreating (44.3% neglect, 14.7% abuse, and 41% neglect and abuse) and 81 nonmaltreating mothers of low socioeconomic status. They found an increase in correct classification when the subscales of Adaptability, Hyperactivity, and Competence were included into the analysis. Sensitivity using total scores was 67.9%; using the subscales it was 76.5%. Specificity using total scores was 79%; using subscales it was 75.3%.

**Criterion Validity:**

| | Not Known | Not Found | Nonclinical Samples | Clinical Samples | Diverse Samples |
|---|---|---|---|---|---|
| Predictive Validity: | | | Yes | Yes | Yes |
| Postdictive Validity: | | | | Yes | |

**References for Criterion Validity:**

Sensitivity and Specificy (reported above) are from a study using the French-Canadian version of the PSI and examine the Sensitivity and Specificity of the total PSI score in discriminating abusive from nonabusive mothers.

**Sensitivity Rate Score:**
67.9
**Specificity Rate Score:**
79
**Overall Psychometric Limitations:**

While there are norms for Spanish speakers, it should be noted that the norms were developed with an East Coast sample. Norms for other Spanish-speaking groups, e.g.,immigrants from Nicaragua, El Salvador, Peru, and Columbia, may differ from those collected, given the high rates of trauma often experienced by immigrants from these countries.

## Translations

**Languages:**
English
**Translation Quality:**

| Language: | Translated | Back Translated | Reliable | Good Psychometrics | Similar Factor Structure | Norms Available | Me De for Gr |
|---|---|---|---|---|---|---|---|
| 1.Spanish (Spain, Puerto Rico) | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 2.Chinese (Mandarin) | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 3.Portuguese | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 4.Korean | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 5.Japanese | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 6.Italian | Yes | Yes | Yes | Yes | Yes | Yes | Ye |

| Language: | Translated | Back Translated | Reliable | Good Psychometrics | Similar Factor Structure | Norms Available | Me De for Gr |
|---|---|---|---|---|---|---|---|
| 7.Hebrew | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 8.Dutch | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 9.French | Yes | Yes | Yes | Yes | Yes | Yes | Ye |
| 10.French (Canadian) | Yes | Yes | Yes | Yes | Yes | Yes | |

Population Information

**Population Used for Measure Development:**

Pilot testing during development consisted of a group of 208 mothers of children younger than 3 years of age who brought their children to the well-child clinic of a private pediatric group in Charlottesville, Va.

**For Specific Population:**
Military and Veteran Families
**Populations with which Measure Has Demonstrated Reliability and Validity:**
Physical Abuse
Sexual Abuse
Medical Trauma
Domestic Violence
Imprisonment
Other
**Use with Diverse Populations:**

| Population Type: | Measure Used with Members of this Group | Members of this Group Studied in Peer-Reviewed Journals | Reliable | Good Psychometrics | Norms Available | Measure Developed for this Group |
|---|---|---|---|---|---|---|
| 1. Developmental disability | Yes | Yes | Yes | Yes | | |
| 2. Disabilities | Yes | Yes | Yes | Yes | | |
| 3. Lower socio-economic status | Yes | Yes | Yes | Yes | | |
| 4. African American | Yes | Yes | Yes | Yes | | |
| 5. Latino | Yes | Yes | Yes | Yes | Yes | |

Pros & Cons/References

**Pros:**

1. Widely used. 2. Psychometrically sound, reliable and validated across a range of populations. 3. Normative data available. 4. Translated into multiple languages. 5. Sensitive to change resulting from treatment. 6. The concept of parenting stress is one that is important for families who have experienced traumatic events. Parenting stress may be an important target for traumafocused interventions.

**Cons:**

1. The measure is face valid and in mandated samples (as with other measures), many parents score low even when they have high levels of stress. Although there is a validity scale, research suggests that the PSI validity scales are not as good at detecting invalid responses as validity scales on the Child Abuse Potential Inventory (Milner & Crouch, 1997). 2. The measure is long. It yields important and good information, but it does present a burden to participants. 3. Some researchers who have attempted to use the Spanish version of the measure with low-income samples have found that participants often have a hard time understanding specific items. The problem appears to stem from the use of double negatives, which may be harder to process in the Spanish language.

**References:**

The reference for the manual is: Abidin, R.R. (1995). Parenting Stress Index, Third Edition: Professional Manual. Odessa, FL: Psychological Assessment Resources, Inc. The manual lists over 300 studies that have used the PSI. A PsychInfo search (6/05) using the words “Parenting Stress Index” or “PSI” anywhere revealed that the measure has been referenced in 621 peer-reviewed journal articles. After eliminating those that clearly referenced the PSI-SF, 536 remained. Below is a sampling of those articles: 1. Abidin, R. R. (1983).Parenting Stress Index — manual. Charlottesville, Virginia: Pediatric Psychology Press. 2. Acton, R.G., & During, S.M. Preliminary results of aggresssion management training for aggressive parents. Journal of Interpersonal Violence, 7(3), 410-417. 3. Bagner, D.M., & Eyberg, S.M. (2003). Father involvement in parent training: When does it matter? Journal of Clinical Child & Adolescent Psychology, 32(4), 599-605. 4. Barkley, R.A., Fischer, M., Newby, R.F., & Breen, M.J. (1988). Development of a multimethod clinical protocol for assessing stimulant drug response in children with attention deficit disorder. Journal of Clinical Child Psychology, 17(1), 14-24. 5. Benzies, K.M., Harrison, M.J., & Magill-Evans, J. (2004). Parenting stress, marital quality, and child behavior problems at age 7 years. Public Health Nursing, 21(2), 111-121. 6. Bigras, M., La Freniere, P.J., & Dumas, J.E. (1996). Discriminant validity of the parent and child scales of the Parenting Stress Index. Early Education and Development, 7(2), 167-178. 7. Calam, R., Bolton, C., & Roberts, J. (2002). Maternal expressed emotion, attributions and depression and entry into therapy for children with behaviour problems. British Journal of Clinical Psychology, 41(2), 213-216. 8. Chan, Y.C. (1994). Parenting stress and social support of mothers who physically abuse their children in Hong Kong. Child Abuse and Neglect, 18(3), 261-269. 9. Chang, Y., Fine, M.A., Ispa, J., Thornburg, K.R., Sharp, E., & Wolfenstein, M. (2004). Understanding parenting stress among low-income, African-American first-time mothers. Early Education and Development, 15(3), 265-282. 10. Goldberg, S., Janus, M., Washington, J., Simmons, R.J., MacLusky, I., & Fowler, R.S. (1997). Prediction of preschool behavioral problems in healthy and pediatric samples. Journal of Developmental & Behavioral Pediatrics, 18(5), 304-313. 11. Harmer, A. L.M., Sanderson, J., & Mertin, P. (1999). Influence of negative childhood experiences on psychological functioning, social support, and parenting for mothers recovering from addiction. Child Abuse & Neglect, 23(5), 421-433. 12. Holden, E.W., Willis, D.J., & Foltz, L. (1989). Child abuse potential and parenting stress: Relationships in maltreating parents. Psychological Assessment, 1(1), 64-67. 13. Hutcheson, J.J., & Black, M.M. (1996). Psychometric properties of

the Parenting Stress Index in a sample of low-income African-American mothers of infants and toddlers. Early Education and Development, 7(4), 381-400. 14. Innocenti, M.S., Huh, K., & Boyce, G.C. (1992). Families of children with disabilities: Normative data and other considerations on parenting stress. Topics in Early Childhood Special Education, 12(3), 403-427. 15. Lacharité, C., Éthier, L.S., & Couture, G. (1999). Sensitivity and specificity of the Parenting Stress Index in situations of child maltreatment/Sensibilité et spécificité de l'indice de stress parental face à des situations de mauvais traitements d'enfants. Canadian Journal of Behavioural Science, 31(4), 217-220. 16. Loyd, B.H., & Abidin, R.R. (1985). Revision of the Parenting Stress Index. Journal of Pediatric Psychology, 10(2), 169-177. 17. Milner, J.S., & Crouch, J.L. (1997). Impact and detection of response distortions on parenting measures used to assess risk for child physical abuse. Journal of Personality Assessment, 69(3), 633-650. 18. Nair, P., Schuler, M.E., Black, M.M., Kettinger, L., & Harrington, D. (2003). Cumulative environmental risk in substance abusing women: Early intervention, parenting stress, child abuse potential and child development. Child Abuse & Neglect, 27(9), 997-1017. 19. Nixon, R.D.V., Sweeney, L., Erickson, D.B., & Touyz, S.W. (2004). Parent-Child Interaction Therapy: One and two-year follow-up of standard and abbreviated treatments for oppositional preschoolers. Journal of Abnormal Child Psychology, 32(3), 263-271. 20. Nixon, R.D.V., Sweeney, L., Erickson, D.B., & Touyz, S.W. (2003). Parent-Child Interaction Therapy: A comparison of standard and abbreviated treatments for oppositional defiant preschoolers. Journal of Consulting and Clinical Psychology, 71(2), 251-260. 21. Pithers, W.D., Gray, A., Busconi, A., & Houchens, P. (1998). Caregivers of children with sexual behavior problems: Psychological and familial functioning. Child Abuse & Neglect, 22(2), 129-141. 22. Puura, K., Davis, H., Cox, A., Tsiantis, J., Tamminen, T., Ispanovic-Radojkovic, V., et al. (2005). The European Early Promotion Project: Description of the service and evaluation study. International Journal of Mental Health Promotion. Special Issue: The European Early Promotion Project (EEPP), 7(1), 17-30. 23. Richardson, R.A., Barbour, N.E., & Bubenzer, D.L. (1995). Peer relationships as a source of support for adolescent mothers. Journal of Adolescent Research, 10(2), 278-290. 24. Robbins, F. R., Dunlap, G., & Plienis, A. J. (1991). Family characteristics, family training, and the progress of young children with autism.Journal of Early Intervention, 15, 173–184. 25. Rodriguez, C.M., & Green, A.J. (1997). Parenting stress and anger expression as predictors of child abuse potential. Child Abuse & Neglect, 21(4), 367-377. 26. Ross, C.N., Blanc, H.M., McNeil, C.B., Eyberg, S.M., & Hembree-Kigin, T.L. (1998). Parenting stress in mothers of young children with oppositional defiant disorder and other severe behavior problems. Child Study Journal, 28(2), 93-110. 27. Solis, M.L., & Abidin, R. (1991). The Spanish version Parenting Stress Index: A psychometric study. Journal of Clinical Child Psychology, 20(4), 372-378. 28. Solís-Cámara R.P., Salcido, P.C., Romero, M.D., & Aguirre, B.I.R. (2004). Multidimensional effects of a parenting program on the reciprocal interaction between parents and their young children with behavior problems/Efectos multidimensionales de un programa de crianza en la interacción recíproca entre padres y sus niños pequenos con problemas de comportamiento. Psicologia Conductual, 12(2), 197-214. 29. Tam, K., Chan, Y., & Wong, C.M. (1994). Validation of the Parenting Stress Index among Chinese mothers in Hong Kong. Journal of Community Psychology, 22(3), 211-223. 30. Webster-Stratton, C., Hollinsworth, T., Kolpacoff, M. (1989). The long-term effectiveness of three cost-effective training programs for families with conduct problem children. Journal of Consulting & Clinical Psychology. Vol 57(4), 550-553. 31. Webster-Stratton, C., & Hammond, M. (1997). Treating children with early-onset conduct problems: A comparison of child and parent intervention trainings. Journal of Consulting and Clinical Psychology, 65(1), 93-109. Other Related References 1. Abidin, R. A. (1976). Parenting skills. New York: Human Sciences Press.

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