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# The Parenting Sense of Competence Scale: Evidence of a Stable Factor Structure and Validity

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## Abstract

In this study, 110 mothers and 110 fathers of 5- to 12-year-old boys and girls completed the Parenting Sense of Competence (PSOC) scale and measures of child behaviour, parenting style, and marital satisfaction. We replicated the factor structure of the Parenting Sense of Competence Scale produced by Johnston and Mash (1989), and provided evidence that the Satisfaction and Efficacy scales from this measure assess distinct aspects of parenting self-esteem. Interestingly, parents of girls reported higher Efficacy scores than parents of boys. To address the validity of the PSOC scale, we calculated partial correlations between Efficacy and Satisfaction PSOC scores and other measures of family functioning, controlling for the shared variance between the two scales. Significant small-to-moderate size correlations were found between parents' reports of both internalizing and externalizing child problems and Satisfaction scores, but correlations with Efficacy scores were generally small and nonsignificant, particularly for mothers. We also found that mothers and fathers who reported a more easy-going, low-conflict parenting style were more satisfied in parenting; for mothers, a similar relationship was found for parenting efficacy. In addition, Satisfaction scores shared a small but significant amount of variance with mother-father agreements in parenting style, as well as marital satisfaction. Implications of the findings for the use of the Parenting Sense of Competence scale are discussed.

## Résumé

Dans cette étude, 110 mères et 110 pères de garçons et de filles âgés de 5 à 12 ans ont rempli l'échelle de mesure du sentiment parental de compétence [(Parenting Sense of Competence (PSOC)) du comportement de l'enfant, du style parental et de la satisfaction maritale. Nous avons reproduit la structure des facteurs de l'échelle de mesure du sentiment parental de compétence réalisée par Johnston et Mash (1989) et fourni des preuves que les échelles de satisfaction et d'efficacité de cette mesure évaluent les

aspects distincts de l'estime de soi parentale. Fait intéressant, les parents de filles ont déclaré des scores d'efficacité plus élevés que les parents de garçons. Pour confirmer la validité de l'échelle de mesure du sentiment parental de compétence, nous avons calculé les corrélations partielles entre les scores d'efficacité et de satisfaction et les autres mesures de fonctionnement de la famille, en contrôlant la variance partagée entre les deux échelles. On a constaté des corrélations importantes d'envergure faible à moyenne entre les déclarations des parents sur l'internalisation et l'externalisation des problèmes des enfants et les scores de satisfaction, mais les corrélations avec les scores d'efficacité étaient généralement faibles et peu importantes, particulièrement pour les mères. Nous avons également constaté que les mères et les pères qui avaient déclaré avoir un style parental plus permissif et moins conflictuel étaient plus satisfaits de leur rôle de parent, tandis que, pour les mères, un lien semblable a été constaté pour l'efficacité parentale. De plus, les scores de satisfaction partageaient une variance faible mais importante par rapport aux consensus mère-père en matière de style parental, ainsi que pour la satisfaction maritale. Les répercussions de ces constatations sur l'utilisation de l'échelle de mesure du sentiment parental de compétence sont discutées.

In both theoretical and empirical work, parents' cognitions have been recognized as playing an important role in parent-child interactions (Bugental & Johnston, 2000; Dix & Grusec, 1985; Johnston, 1996a). One type of parental cognition that has received increasing attention is parenting self-esteem. However, as with other types of parental cognitions, definitions of parenting self-esteem have been inconsistent (Sabatelli & Waldron, 1995). Our definition of parenting self-esteem is congruent with a definition of general self-esteem that emphasizes two correlated but separate components, one relating to a sense of social value and the other relating to a sense of

personal efficacy or competence (e.g., Gecas & Schwalbe, 1983; Harter, 1985). Tafarodi and Swann (1995) have reported substantial empirical support for these value (self-liking) and self-efficacy (self-competence) self-esteem components. Consistent with this bidimensional view of general self-esteem, we define parenting self-esteem as a person's contentment (the liking or satisfaction component) and perceived effectiveness (the efficacy component) as a parent.

Considering the importance of general self-esteem in our daily lives, interest in the impact of parenting self-esteem on family functioning is not surprising. For example, significant correlations (ranging from  $-.20$  to  $-.40$ ) have been demonstrated between parenting self-esteem and reports of child behaviour problems in samples of nonproblem children (e.g., Johnston & Mash, 1989; Lovejoy, Verda, & Hays, 1997), children with behaviour disorders (e.g., Johnston, 1996b; Pisterman et al., 1992), and children with physical disorders (e.g., Rodrigue, Geffken, Clark, Hunt, & Fishel, 1994; Sanders, Turner, Wall, Waugh, & Tully, 1997). This relationship may be reciprocal, as parenting a child with behavioural problems may negatively impact a person's sense of effectiveness and satisfaction as a parent; a parent with low satisfaction and efficacy is unlikely to be optimally responsive to a child's needs, which may fuel further behaviour problems. Guided by previous research, we predicted that parenting self-esteem would be negatively related to reports of child problems in this study.

Parenting self-esteem may also be reciprocally related to the style that parents use in interacting with their children. In a sample of parents of children with attention-deficit hyperactivity disorder (ADHD), Johnston and Patenaude (1994) found that parents with lower parenting self-esteem tended to report more negative reactions to difficult child behaviour. This relationship is also suggested by studies linking parenting self-esteem to parent-child attachment. Mercer and Ferketich (1994), for instance, reported that parenting self-esteem was correlated with mother-rated acts and feelings of tenderness and affection towards her infant at hospital release after giving birth and at 1-, 4-, and 8-month follow-ups. Interestingly, the amount of shared variance between parenting self-esteem and attachment ratings increased from 11% to 31% for experienced mothers, but decreased from 31% to 16% for inexperienced mothers. Similarly, Lovejoy et al. (1997) reported that parenting self-efficacy was correlated ( $r = .33$ ) with mothers' dimensional ratings of statements representing secure attachment feelings towards their preschool child, but not with statements representing insecure attachment styles. Perhaps a parent who reacts with greater attentiveness to his or her child engenders a responsive, secure child who is more pleasurable to parent. Further evidence support-

ing the association between parenting self-esteem and parenting behaviour comes from studies showing changes in parenting self-esteem associated with parent skills training in families of children with disruptive behaviour, with effect sizes typically in excess of 1.0 standard deviations (e.g., Anastopoulos, Shelton, DuPaul, & Guevremont, 1993; Pisterman et al., 1992; Tiedemann & Johnston, 1992). Therefore, we predicted that positive parenting styles would be related to parenting self-esteem in our sample.

Parenting self-esteem may also be related to family interactions beyond the immediate parent-child context, such as the marital relationship. It seems logical to expect that a couple's agreement on how to raise their children would lead to greater reassurance and positive feedback regarding the spouses' interactions with the child, thereby fostering and/or reinforcing feelings of parenting satisfaction. Unfortunately, we could not find previous research that addressed this question; thus, we included a measure of co-parenting agreement in this study to test this hypothesis. Regarding marital satisfaction, it also seems logical to expect that spouses who are more satisfied will be more satisfied parents; however, the existing literature in this area is limited. Kurdek (1996), however, has reported that marital satisfaction did not significantly predict parenting satisfaction at an 8-year follow-up, and Donenberg and Baker (1993) have reported small, nonsignificant correlations between marital satisfaction and parenting self-esteem in a sample of mothers of children with and without behaviour problems. In this study, we included a measure of marital satisfaction to explore whether it would correlate with parenting satisfaction.

Given the intuitive relationship between a healthy sense of parenting self-esteem and positive family interactions, as well as the evidence for this relationship reviewed above, it is important to find a reliable, valid, and economical method of assessing parenting self-esteem. One measure of parenting self-esteem that has psychometric support is the Parenting Sense of Competence (PSOC) scale (Johnston & Mash, 1989). This scale is commonly used to measure parenting self-esteem and was the one used in the research reviewed above. Originally devised by Gibaud-Wallston and Wandersman (1978) to measure parents' perceived competence with their infants, the PSOC items were rationally constructed to form two scales: Value/Comforting and Skills/Knowledge. Gibaud-Wallston and Wandersman reported internal consistencies of .82 for the Value/Comforting scale and .70 for the Skills/Knowledge scale, and test-retest reliability coefficients over a 6-week period ranged from .46 to .82. These authors also reported evidence for concurrent validity as PSOC scores were correlated with the parents' perceived difficulty with the

infant, social support, and psychological well-being. Johnston and Mash (1989) changed item wordings from "infant" to "child" and administered the PSOC to parents of elementary school-aged children. These authors identified two factors that were consistent with the original authors' scales, and labeled these scales Satisfaction (defined as the person's liking of the parenting role), and Efficacy (defined as the person's perceived competence in the parenting role). In addition to the good fit with the scales that were rationally derived by Gibaud-Wallston and Wandersman, these scales are also consistent with the bidimensional view of self-esteem as being composed of valutive (Satisfaction) and self-efficacy (Efficacy) components. The present study sought to replicate the PSOC factor structure reported by Johnston and Mash in a different and more contemporary sample of parents with nonproblem children.

Previous studies using the PSOC have provided some evidence of divergent correlates for its two scales. In a sample of parents of children with ADHD, Johnston and Patenaude (1994) found that scores on both the Satisfaction and Efficacy scales correlated with negative reactions to oppositional child behaviours ( $-.31$  and  $-.27$ , respectively), but only Satisfaction scores correlated significantly with reactions to inattentive child behaviours ( $-.37$  compared to  $-.11$  for Efficacy scores). However, parents who rated inattentive behaviours as more uncontrollable by the child reported higher Efficacy scores, suggesting that seeing inattention as unintentional may protect a parent's self-esteem. Johnston and Mash (1989) found that perceived child behaviour problems were negatively correlated with the Satisfaction scale for both parents, but with the Efficacy scale for fathers only, suggesting that the perceived difficulty of the child's behaviour is not related to mothers' feelings of effectiveness as a parent. Despite these suggestions of differences between the two scales of the PSOC, further work is needed. In this study, we examined correlations between each scale and measures of child behaviour, parenting style, and the marital relationship.

Johnston and Mash (1989) reported means and standard deviations on the PSOC for a community sample of 297 mothers and 215 fathers of younger (aged 4 to 6 years) or older (aged 7 to 9 years) children. The authors found that fathers scored higher on the Satisfaction scale, but there was no mother-father difference on the Efficacy scale. Analyses of both scales indicated no definitive child gender or age differences. The lack of significant effects of child age might be attributable, at least in part, to the relatively confined age range studied. In this study, we gathered reports of parents of children between 5 and 12 years of age. To replicate and extend the findings of Johnston and Mash, we tested for differences in PSOC scores across child gender, parent gender,

and child age. We predicted, based on previous results, that mothers would score lower than fathers on the Satisfaction scale.

In summary, the goals of this study included: 1) to examine the factor structure of the PSOC scale, 2) to provide more evidence for the validity of the PSOC scale, and 3) to examine how family characteristics relate to the PSOC scores in a sample of parents with children between 5 and 12 years of age.

## METHOD

### *Participants*

The design of this study was reviewed and approved by our university's ethical review committee. Interested couples who had been parenting together for at least three years and had a 5- to 12-year-old child were recruited from a large urban area through posters in community centres and newspaper notices. When contact was made, a research assistant briefly explained the study and verbal consent was obtained from parents who were interested in participating. If there was more than one child between 5 to 12 years old in the household, one was selected as the target child for the study (this was determined by a desire to recruit equal numbers of boys and girls at each age). The measures reported in this study were mailed to families, and both mothers and fathers were asked to complete the measures independently and to each put their completed measures in sealed envelopes. As part of a larger study, research assistants went to the homes of participating families to obtain signed informed consent, to collect the measures, and to administer other tasks that are not reported in the present study. As an exception to this procedure, 14 families returned their measures when they attended the laboratory for participation in another study.<sup>1</sup> In total, 110 couples completed all measures. One additional couple completed only the PSOC scale, and their data is used in analysis of PSOC scores, but obviously not in correlations between the PSOC and other measures.

Information regarding family socioeconomic status (SES), parental age, number of children in the family, number of years married, and the numbers of parents completing the measures for each age and sex of child is shown in Table 1.

<sup>1</sup> The larger study that most families participated in involved an observational assessment of couples' child-rearing discussions. Thus, this sample consists of couples who both agreed to participate in research concerning co-parenting. However, the observational measure was always administered after all questionnaires were completed, and therefore is unlikely to have influenced the results on the measures reported here. The 14 families who came to the lab completed all questionnaires first, then the co-parenting measure, and finally participated in observational assessments of parent-child interactions.

TABLE 1  
Means and Standard Deviations for Demographic Characteristics of Participants

Child Age	Number of Families	Family SES <sup>a</sup>	Mother Age <sup>b</sup>	Father Age <sup>b</sup>	Number of Siblings
Boys					
5-6 years	8 (SD)	2.25 (1.04)	34.62 (4.44)	35.71 (2.36)	1.38 (0.52)
	range	1-4	30-43	32-38	1-2
7-9 years	35 (SD)	2.69 (1.08)	34.44 (4.00)	37.40 (4.63)	1.31 (0.87)
	range	1-5	28-46	33-49	1-2
10-12 years	13 (SD)	2.38 (0.87)	37.62 (2.69)	41.15 (4.47)	1.31 (0.48)
	range	1-4	31-41	33-49	1-2
Girls					
5-6 years	9 (SD)	2.67 (0.71)	35.89 (3.26)	35.44 (2.35)	1.33 (0.50)
	range	2-4	31-42	33-39	1-2
7-9 years	30 (SD)	2.50 (1.11)	34.67 (4.13)	37.60 (4.63)	1.31 (0.60)
	range	1-4	26-44	30-47	0-2
10-12 years	16 (SD)	2.75 (1.18)	37.13 (3.67)	38.56 (3.33)	1.88 (1.02)
	range	1-5	30-42	32-43	0-3
Total					
	111 (SD)	2.58 (1.04)	35.40 (3.95)	37.78 (3.95)	1.40 (0.76)
	range	1-5	26-46	26-49	0-4

<sup>a</sup> Family socioeconomic status calculated according to the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975). Scores range from 1 to 5 and higher scores indicate lower socioeconomic status.

<sup>b</sup> Parent age in years.

#### Measures

*Parenting Sense of Competence Scale (PSOC; Johnston & Mash, 1989).* As described in the introduction, the PSOC consists of 17 items answered on a 6-point scale ranging from "strongly disagree" to "strongly agree." Scoring for some items is reversed so that, for all items, higher scores indicate greater parenting self-esteem. Johnston and Mash (1989) have reported internal consistencies of .75 for the Satisfaction scale and .76 for the Efficacy scale, and Lovejoy et al. (1997) have reported internal consistencies of .82 and .88 for the Efficacy scale in two samples of mothers with preschool children.

*Child Behaviour Checklist (CBCL; Achenbach, 1991).* The CBCL presents items describing 113 problem behaviours in children. Taking into account their child's behaviour in the past six months, respondents rate each behaviour on a 3-point scale as: "not true," "somewhat or sometimes true," and "very true or often true" of their child. Sex- and age-appropriate norms are available. The CBCL has demonstrated excellent psychometric properties (Achenbach, 1991). *T*-scores for the broadband Internalizing and Externalizing factors were used in this study.

*Child-Rearing Practices Report (CRPR; Block, 1965).* The CRPR is a 91-item Q-sort assessing parents' child-rearing attitudes and behaviours. Respondents are asked to sort 91 cards, each with a description of a child-rearing attitude or behaviour, into 7 piles of 13 cards (from 1 = "most unlike me" to 7 = "most like me"). The CRPR has shown test-retest reliability over a one-year interval of .71 (Block, 1965) and correlates with observed parent behaviours, socioeconomic status, and parental education (Dekovic, Janssens, & Gerris, 1991; Roberts, 1987). For the present study, we examined four subscale scores (Easy-going, Encourages Autonomy, Cool/Distant, and Protective/Indulgent), which have been empirically derived and replicated across six different samples (Roberts, 1989). We calculated Cronbach's alphas for each of these scales in our sample of parents and set a cut-off of .60 for retaining scales for further analyses. The obtained alphas were .68 (Easy-going, 6 items), .60 (Encourages Autonomy, 9 items), .59 (Cool/Distant, 12 items), and .42 (Protective/Indulgent, 11 items). Considering that the Easy-going, Cool/Distant and Encourages Autonomy subscales were near or just below our minimal .60

TABLE 2  
Item Loadings on the Two Factors of the Parenting Sense of Competence Scale by Parent Gender

Item	Satisfaction Scale		Efficacy Scale	
	Mothers	Fathers	Mothers	Fathers
2. Even though being a parent could be rewarding, I am frustrated now while my child is at his/her present age.	.62	.71	(.35)	(.09)
3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	.67	.59	(.24)	(.20)
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	.77	.65	(.28)	(.11)
5. My mother/father was better prepared to be a good mother/father than I am.	.58	(.32)	(.37)	(-.04)
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	.44	.40	(.24)	(.25)
9. Sometimes I feel like I'm not getting anything done.	.63	.60	(.26)	(.35)
12. My talents and interests are in other areas, not in being a parent.	(.37)	.59	(.35)	(.17)
14. If being a mother/father of a child were only more interesting, I would be motivated to do a better job as a parent.	(.36)	.56	(.30)	(.18)
16. Being a parent makes me tense and anxious.	.49	.57	.49	(.21)
1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	(.18)	(.03)	.54	.55
6. I would make a fine model for a new mother/father to follow in order to learn what she/he would need to know in order to be a good parent.	.46	(.31)	.67	(.35)
7. Being a parent is manageable, and any problems are easily solved.	(.24)	(.13)	.55	.78
10. I meet my own personal expectations for expertise in caring for my child.	.55	.40	.69	.66
11. If anyone can find the answer to what is troubling my child, I am the one.	(.36)	(.12)	.62	.59
13. Considering how long I've been a mother/father, I feel thoroughly familiar with this role.	(.36)	(.27)	.72	.50
15. I honestly believe I have all the skills necessary to be a good mother/father to my child.	(.28)	(.17)	.62	.55
17. Being a good mother/father is a reward in itself.	(.22)	.42	.48	(.33)

Note. Loadings below .40 are shown in brackets.

criteria, we conducted principal components analyses to assess the dimensionality of these scales. Because the matrix of eigenvectors for the Cool/Distant and Encourages Autonomy scales revealed multidimensional structures that were difficult to interpret, we did not consider these scales further. On the other hand, the scree plot test for the Easy-going subscale suggested only one component. Thus, we used only the Easy-going scale in our analyses. This scale contains three items indicating a relaxed parenting style (e.g., I am easy-going and relaxed with my child) as well as three negatively scored items relating to parent-child conflict (e.g., there is a good deal of conflict between my child and me).

In addition, a co-parenting agreement index (Block, Block, & Morrison, 1981) was used to measure the extent to which a couple agrees about their child-rearing practices. This score was calculated by correlating moth-

ers' and fathers' responses to all CRPR items for each parent dyad.

*Dyadic Adjustment Scale (DAS; Spanier, 1976).* The DAS is a widely used self-report measure of marital satisfaction. It has shown high internal consistency (.96), and has correlated with other measures of marital adjustment (Spanier, 1976). We used the total DAS score.

## RESULTS

### *Sample Characteristics*

As can be seen in Table 1, the average family participating in this study was middle class, with parents in their mid-30s, and consisted of one to two children. To check for demographic differences within the sample, a 2 (Sex of Target Child)  $\times$  3 (Age of Target Child) analysis of variance (ANOVA) was used to analyze SES and number of siblings. Child age was divided into three categories that

were chosen to be consistent with the Johnston and Mash (1989) report: 5 years 0 months to 6 years 11 months, 7 years 0 months to 9 years 11 months, and 10 years 0 months to 12 years 11 months. No significant main effects or interactions were found for family SES or number of siblings.

#### *Factor Analyses*

Although confirmatory factor analyses would be the preferred method for comparing the factor structure of the PSOC in this sample to that in Johnston and Mash (1989), several things preclude its use. As Floyd and Widaman (1995) note, confirmatory factor analysis is least useful when more than five items load on the factors, the initial factor structure accounts for a relatively small amount of the variance, and relatively small sample sizes make it difficult to evaluate the adequacy of model fit. Given that all of these conditions are true of the present situation, we decided to use exploratory rather than confirmatory factor analyses.

We used principal axis factoring<sup>2</sup> to investigate the factor structure of the PSOC. We conducted analyses for mothers and fathers separately to examine if there are underlying differences in the factor structure of parents' cognitions on this scale. Initial analysis revealed three factors with eigenvalues greater than 1 for both mothers and fathers. However, a scree plot test indicated that a two-factor solution was most appropriate in both cases. This decision was also supported by the fact that only two of the three factors accounted for more than 10% of the variance and had more than two items loading above .40. We therefore repeated the principal axis factoring, forcing two-factor solutions. The first factor accounted for 31.80% of the variance for mothers and 26.79% for fathers, and had an eigenvalue of 5.41 for mothers and 4.56 for fathers. The second factor accounted for 11.44% of the variance for mothers and 14.09% for fathers, and had an eigenvalue of 1.95 for mothers and 2.40 for fathers. The two factors were rotated to an oblique solution because theoretically the two aspects of parenting self-esteem are related. The correlation between factors was .48 for mothers and .27 for fathers. Factor loadings for both mothers and fathers are shown in Table 2 (loadings below .40 are shown in brackets).

The factors that resulted for mothers and fathers are congruous in many respects: 1) a two-factor solution provided the best fit for both mothers and fathers, 2) the coefficients of congruence between the solutions derived

for mothers and fathers were high (.95 for the Satisfaction factor and .92 for the Efficacy factor), 3) despite some differences in the strength of item loadings, the pattern of loadings was identical between mothers and fathers with two minor exceptions (items 16 and 17), and 4) the percentage of variance accounted for by both factors was roughly equivalent in the two samples (42% for mothers, 41% for fathers). However, some differences resulted, including: 1) two items for fathers and one item for mothers did not load above .40 on either scale, 2) item 16 loaded equally on both factors for mothers, but only on the Satisfaction factor for fathers, and 3) item 17 loaded on the Efficacy factor for mothers but the Satisfaction factor for fathers. Despite these minor differences, in all, the underlying structure of the PSOC appears to be quite similar between mothers and fathers.

Given the evidence that the underlying structure of the scale is similar for mothers and fathers, and given that one of our original intention was to compare and contrast the factor analytic results of our sample to those of Mash and Johnston (1989), which included both mothers and fathers, we conducted another factor analysis combining mothers and fathers. Three factors with eigenvalues greater than 1 emerged; however, only two factors were indicated by a scree plot test, and only the first two factors accounted for more than 10% of the variance and had more than two items loading above .40. Therefore, the procedure was repeated, forcing a two-factor solution. The first factor accounted for 28.8% of the variance and had an eigenvalue of 4.90; the second factor accounted for 12.2% of the variance and had an eigenvalue of 2.08. These two factors were rotated to an oblique solution with a correlation between factors of .43.

The factors and item factor loadings from this analysis very closely replicate those found by Johnston and Mash (1989). The only exceptions were: item 10, which loaded above .40 on both factors in this analysis, but loaded only on the Efficacy factor in the Johnston and Mash data; item 16, which loaded equally on both factors for mothers; and item 17, which loaded at .41 on the Efficacy factor for mothers and .42 on the Satisfaction factor for fathers in this data set but did not load above .40 on either factor in the Johnston and Mash sample. To further examine the apparent similarity between our results and those of Johnston and Mash (1989), we calculated congruence coefficients for both scales. The coefficients of congruence were .99 for both scales, suggesting a great deal of similarity.

In sum, results generally indicated good agreement in the factor structures revealed for mothers and fathers and for our sample and the Johnston and Mash (1989) sample. However, small but possibly meaningful differences were apparent between mothers and fathers. Thus, we decided to calculate PSOC scores in two ways and to use both sets

<sup>2</sup> Johnston and Mash (1989) used principal components analyses, although the assumptions of principal axis factoring are probably more appropriate for the type of data. We also conducted our analyses using principal components analyses and obtained results identical to those found with principal axis factoring.

TABLE 3

Means and Standard Deviations for PSOC Satisfaction and Efficacy Scores by Child Age, Child Gender, and Parent Gender

	Satisfaction		Efficacy	
	Mothers	Fathers	Mothers	Fathers
5- to 6- year-old children				
Boys ( <i>n</i> = 8)	36.38 (6.89)	41.25 (6.50)	21.63 (6.46)	26.00 (4.60)
Girls ( <i>n</i> = 9)	38.67 (4.85)	43.56 (5.64)	29.00 (3.35)	30.33 (6.04)
7- to 9- year-old children				
Boys ( <i>n</i> = 35)	38.79 (6.93)	39.34 (7.41)	26.88 (6.59)	27.20 (5.39)
Girls ( <i>n</i> = 30)	39.27 (6.34)	41.87 (6.68)	28.60 (3.76)	27.02 (5.73)
10- to 12-year old-children				
Boys ( <i>n</i> = 13)	37.00 (8.59)	37.92 (6.08)	26.23 (7.28)	27.00 (4.81)
Girls ( <i>n</i> = 16)	41.00 (8.34)	38.44 (6.57)	30.50 (6.37)	28.00 (4.95)

However, small but possibly meaningful differences were apparent between mothers and fathers. Thus, we decided to calculate PSOC scores in two ways and to use both sets of scores in analyses. First, we calculated scale scores using unit weightings of the items comprising the factors found for mothers versus fathers in this study. Second, we calculated scale scores consistent with the methods of Johnston and Mash (1989) and ensuing studies (i.e., unit weightings based on the results of the Johnston and Mash factor analysis). Because these two methods of calculation resulted in highly similar results for *all* ensuing analyses, we report only the results based on scores calculated based on the Johnston and Mash analysis in order to enhance comparability with this and other studies.

#### *Internal Consistency of the PSOC Scale Scores*

Internal consistencies were calculated for both scales according to the Johnston and Mash (1989) study (items 2, 3, 4, 5, 8, 9, 12, 14, and 16 on the Satisfaction scale, and items 1, 6, 7, 10, 11, 13, and 15 on the Efficacy scale). We used equal weights to sum items because of evidence suggesting that differences between using item loadings and equal weights are minimal (Hakstian, Suedfeld, Ballard, & Rank, 1986), and because this measure is intended for clinical use for which the ease of equal weightings is desirable. For mothers, the internal consistency of both the Efficacy and Satisfaction scales was .80. For fathers, the internal consistency of the Efficacy scale was .77 and the consistency of the Satisfaction scale was .80.

#### *Effects of Child Age, Child Gender, and Parent Gender on PSOC scores*

Means and standard deviations for the PSOC scales as

they are scored according to Johnston and Mash (1989) are provided in Table 3 for mothers and fathers of boys and girls in three age groups: younger (5-6 years), intermediate (7-9 years), and older (10-12 years). Satisfaction and Efficacy scores were each submitted to a  $3 \times 2 \times 2$  ANOVA with child age and gender as between-subjects factors and parent gender as a within-subjects factor. No significant effects or interactions were found for Satisfaction scores. For Efficacy scores, there was a significant effect of child gender,  $F(2, 105) = 8.95$ ,  $p < .01$ ,  $\eta^2 = .08$ , with parents of girls reporting higher Efficacy scores than parents of boys. No other significant effects or interactions were found for Efficacy scores.

Correlations computed between mother and father scores on the PSOC indicated significant associations for Satisfaction scores,  $r(110) = .33$ ,  $p < .001$ , and Efficacy scores,  $r(110) = .27$ ,  $p < .01$ . Finally, the Satisfaction scores and the Efficacy scores were significantly related to each other for both mothers,  $r(110) = .49$ ,  $p < .001$ , and fathers,  $r(110) = .29$ ,  $p < .01$ , respectively.

#### *Correlations of the PSOC with Other Measures of Family Functioning*

Means and standard deviations for mother and father reports on the CBCL, CRPR, DAS, and Co-Parenting Agreement score of the CRPR are shown in Table 4. As would be expected in a sample of community parents, these means are well within the normal limits for these scales.

In order to test whether the Satisfaction and Efficacy scales of the PSOC assess distinct aspects of parenting self-esteem, we conducted partial correlations between each of the PSOC scales and child behaviour problems, marital adjustment, and parenting style, while controlling for the other PSOC scale. To control for type-I error, we employed

TABLE 4  
Means and Standard Deviations for Measures of Family Functioning

Variable	Mothers ( <i>n</i> = 110)		Fathers ( <i>n</i> = 110)	
	Mean	SD	Mean	SD
Child Behaviour Checklist				
Internalizing T Score	57.44	9.36	53.14	10.41
Externalizing T Score	55.45	10.90	53.38	11.29
Child-rearing Practices Report				
Easy-going	5.43	0.94	5.75	0.86
Co-Parenting Agreement	.52	.16	.52	.16
Dyadic Adjustment Scale	111.01	15.48	110.54	14.26

of .01. For both parents, the Satisfaction scale was significantly correlated with all measures of family functioning after variance due to the Efficacy scale was controlled. For mothers, the Efficacy scale was correlated with an easy-going parenting style after variance due to the Satisfaction scale was controlled. For fathers, the Efficacy scale was negatively correlated with child internalizing behaviour after variance due to the Satisfaction scale was controlled. See Table 5 for the partial correlations.

#### DISCUSSION

The purposes of this study were: 1) to assess the factor structure of the PSOC, 2) to examine evidence for the validity of the PSOC, and 3) to better understand the relationship of family characteristics and PSOC scores in a community sample of parents with children of diverse ages.

##### *Factor Structure*

We began by examining the factor structure of mothers' and fathers' reports separately, and found similar structures. For example, a two-factor solution, which accounted for approximately half of the variance with similar patterns of item loadings, was indicated for both mothers and fathers and a comparison of the solutions produced strong congruence coefficients. These results suggest that the underlying structure of the Satisfaction and Efficacy scales did not differ substantially between mothers and fathers. Perhaps most importantly, the factors that emerged for both genders were consistent with previous theoretical and empirical work supporting a bidimensional view of parenting self-esteem as being composed of liking and effectiveness components (e.g., Johnston & Mash, 1989; Tafarodi & Swann, 1995).

Another purpose of this study was to examine how the PSOC factor structure in our sample compared to that found by Johnston and Mash (1989). The factor structure that emerged for the entire sample was highly similar to that obtained by Johnston and Mash as indicated by the pattern of item loadings and strong congruence coefficients. Thus, it appears that the factor structure for a combined sample of parents is stable across a different

sample and across parents with children of a wider age range than previously reported.

##### *Evidence for Internal Consistency, Convergent and Divergent Validity*

Consistent with past research (e.g., Johnston & Mash, 1989; Lovejoy et al., 1997), in this sample both PSOC scales indicated good internal consistency. In addition, the internal consistencies did not vary meaningfully across parent gender.

Validity of the PSOC was examined through its relationships with aspects of family life that we had hypothesized would be linked to parenting self-esteem. To demonstrate not only the convergent validity of the PSOC in relation to these family variables, but also the independent contributions of Satisfaction and Efficacy scores to each relationship, we used partial correlations controlling for the alternate PSOC scale (such that the correlations for Satisfaction scores are reported with variance due to Efficacy controlled, and vice versa for relationships with Efficacy scores). As expected, internalizing and externalizing child behaviour problems were negatively related to parents' reports of their liking of the parenting role (Satisfaction). In contrast, parents' reports of their perceived competence in the parenting role (Efficacy) were not related to child behaviour for mothers and significantly related to only internalizing child problems for fathers. This lack of association with parental Efficacy is in contrast to findings of previous studies with parents of clinic-referred children (e.g., Baker & Heller, 1996; Rodrigue et al., 1994), but is similar to results from community samples (e.g., Johnston & Mash, 1989). Perhaps in community samples where the level of child problems is generally low, parents, particularly mothers, do not use this absence of problems as a basis by which to judge their effectiveness. Rather, they may rely on other aspects of child behaviour, such as child competencies or academic achievements, which were not measured in this sample.

We also expected that parenting style would be related to parenting self-esteem. Confirming our hypothesis, feelings of parenting Satisfaction were linked with an



TABLE 5  
Partial correlations between the PSOC Scales and Measures of Family Functioning

Variable	Satisfaction <sup>a</sup>		Efficacy <sup>b</sup>	
	Mothers ( <i>n</i> = 110)	Fathers ( <i>n</i> = 110)	Mothers ( <i>n</i> = 110)	Fathers ( <i>n</i> = 110)
Child Behaviour Checklist				
Internalizing <i>T</i> Score	-.47*	-.38*	.06	-.26*
Externalizing <i>T</i> Score	-.41*	-.37*	-.01	-.19
Child-rearing Practices Report				
Easy-going	.30*	.37*	.30*	.03
Co-parenting Agreement	.28*	.30*	-.04	.01
Dyadic Adjustment Scale	.27*	.32*	.16	.08

Note. All correlations are 2-tailed significance tests.

<sup>a</sup>Controlling for Efficacy scores.

<sup>b</sup>Controlling for Satisfaction scores.

\**p* < .01.

easy-going and low-conflict parenting style for both mothers and fathers, even after accounting for variance due to parenting Efficacy. Perhaps a tolerant, low-conflict method of parenting allows parents to gain more pleasure in the parenting role, and, transactionally, parents who find satisfaction in parenting may approach their children more positively and be less likely to initiate or escalate conflictual interactions. Interestingly, for mothers but not fathers, feelings of competence on the PSOC Efficacy scale were also linked with an easy-going, low-conflict parenting style, after covarying Satisfaction scores. This suggests that, at least for women, a tolerant, low-conflict style of parenting is linked to an increased sense of control and competence as well as to pleasure as a parent. Alternately, fathers may base their feelings of parenting effectiveness more on their success in discipline and teaching, aspects not assessed by the Easy-going scale.

We also found that two aspects of the marital relationship, marital satisfaction and inter-parent agreement on parenting style, were related to parenting satisfaction. A plausible explanation is that couples who are happy in their relationship and who agree in their parenting styles are more likely to be supportive and approving of each others' parenting efforts, and this positive inter-parent feedback and mutual satisfaction with family life may provide the basis for reports of enhanced satisfaction in the parenting role. Although these findings diverge from the very small and nonsignificant relationships reported by Kurdek (1996) and Donenberg and Baker (1993) (e.g., correlations ranging from .05 to -.17), differences in methodology and sample characteristics may well account for the discrepancies. Obviously, more research is needed examining the relationships in satisfaction across various domains of family life.

As with measures of child behaviour, however, the relationships between marital measures and parenting Efficacy were not significant after covarying Satisfaction

scores. This suggests that, while the affective aspects of parenting were independently linked to other aspects of family life, this was not generally the case for feelings of parenting competence or efficacy. We suggest that this difference may reflect the nonproblem nature of this sample. In generally well-functioning families, feelings of parenting efficacy may not be directly challenged, and as such may not be related to the parents' assessment of functioning in other aspects of the family (e.g., the child's adjustment or the marital relationship). Instead, parents may see the general well-being of the family as a basis for feelings of enjoyment and value in parenting (as tapped by the Satisfaction scale). Whether this same difference in the unique relationships of PSOC Satisfaction and Efficacy scores would appear in families directly facing parenting challenges (e.g., children with behaviour or developmental problems) is not known. In addition, it may be that our measures of family functioning (especially the constructs of marital satisfaction and easy-going parenting style) were more conceptually linked to feelings of parenting satisfaction than to feelings of perceived competence. Aspects of family life that are seen as more under the parent's control or within the parent's responsibilities (e.g., the child's academic success) may be more uniquely linked to the Efficacy scale.

Finally, it has been previously noted that the items on the Efficacy scale of the PSOC are worded in the positive direction, whereas those on the Satisfaction scale are worded in the negative direction (Johnston & Mash, 1989). Thus, it might be argued that the two-factor solution for this measure is an artifact of item valence. This is a continuing problem with the PSOC scale that needs to be addressed in future research on measuring parenting self-esteem.

#### *Relationship of PSOC Scores to Family Demographics*

We tested differences in PSOC scores based on parent gender, child gender, and child age group. We did not

replicate Johnston and Mash's (1989) findings that fathers report greater satisfaction than mothers; however, this may reflect the decreased power in our sample, as effect sizes, although small, are consistent between the Johnston and Mash study and our study (effect sizes of .27 and .26 standard deviations, respectively). Contrary to Johnston and Mash (1989), we found significantly higher Efficacy scores for parents reporting on girls compared to parents reporting on boys. Perhaps parents of boys perceive their sons' behaviour as more challenging to parenting skills than girls or that girls provide parents with more positive feedback about their parenting skill than do boys. Future research will be necessary to resolve both of the gender effects.

### Limitations and Conclusions

As with any investigation, the results of this study must be considered within the context of its limitations. One such limitation is the issue of source variance, given that parents provided all of the information for the study. Obviously, including other sources of information (e.g., teacher reports of child behaviour, observations of parenting or the marital relationship) would clarify the extent to which rater variance contributed to the observed relationships and is an important next step for research. In addition, the measures used in the study were not administered in a counterbalanced order and therefore order effects may confound the results. Although the total sample size was adequate, smaller groups resulted when child age, child gender, and parent gender were used to partition the sample. This limited the power of analyses comparing these various groups and also prevented us from determining how parenting multiple children of different ages and genders affects mothers' and fathers' parenting self-esteem. Moreover, because we did not include single parents in our study, the degree to which these results are generalizable to single parent families is not known.

In summary, the PSOC continues to demonstrate utility in assessing parenting self-esteem. However, further research is needed to explore the properties of this measure. For example, the issue of item valence differences between the two scales and the possible influence of response biases should be further investigated.

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