

The relationship between maternal self-efficacy and Parenting practices: implications for parent training

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Abstract

The present study examined the relationship between maternal self-efficacy, dysfunctional discipline practices and child conduct problems. Specifically, three levels of self-efficacy, global, domain and task-specific self-efficacy, were assessed in mothers of 2- to 8-year-old children with conduct problems (clinic group, $n = 45$) and non-clinic mothers from the community (non-clinic group, $n = 79$). Measures of global, domain and task-specific self-efficacy were completed by mothers. Clinic mothers reported significantly lower self-efficacy than non-clinic mothers for all but one of the parenting tasks assessed. Both groups of mothers reported lowest self-efficacy for similar parenting tasks. In the sample as a whole self-efficacy measures were significant predictors of maternal discipline style after controlling for other parent, child and risk factors. Of the self-efficacy variables behavioural self-efficacy was the best predictor of mothers discipline style. The findings support the importance of developing parenting strategies that enable parents to generalize their parenting skills to a diverse range of diverse parenting contexts both in the home and in the community.

Keywords: self-efficacy, parenting, practices, parent training

There is substantial evidence that parent training based on social learning models is effective in managing a wide variety of behavioural and emotional problems in children (Sanders 1999). Programmes that provide active skills training for parents (modelling, rehearsal and feedback), that teach parents how to improve their relationships and daily positive interactions with their children and how to use effective disciplinary strategies (e.g. planned ignoring, logical consequences, quiet time, timeout) report significant improvements in children's behaviour, decreased use of coercive discipline methods, parental stress and depression and reduced relationship conflict. A number of studies have also shown that parent training increases parental self-efficacy (e.g. Tucker *et al.* 1998; Sanders 1999). Self-efficacy refers to parents beliefs in their ability to effectively manage the varied tasks and situations of parenthood (Gross & Rocissano 1988).

The Triple P-Positive Parenting Program (Sanders 1999) is a population level system of parenting and family support that includes five levels of intervention on a tiered continuum of increasing strength. Each level of Triple P seeks to strengthen parents' self-regulation skills and in particular to increase parents' self-efficacy or confidence in managing the daily tasks of parenthood (e.g. helping children learn to dress and feed themselves and get ready to go out in the morning). Difficulties in managing these daily tasks of parenthood can be even more problematic for parents who have children with conduct problems.

Considerable evidence supports the importance of strengthening self-efficacy in parenting programmes. Parental self-efficacy has been shown to directly affect the quality of care provided to children. Improved self-efficacy is associated with increased quality of mother-toddler interactions (Tucker *et al.* 1998). High maternal self-efficacy is related to maternal sensitivity, warmth (Teti & Gelfand 1991) and responsiveness (Stifter & Bono 1998). These parental characteristics are protective factors against the development of child and adolescent behaviour problems (Pettit & Bates 1989; Lamborn *et al.* 1991), promote higher child self-

esteem, school performance and social competence, and lower levels of anxiety and depression (Patterson *et al.* 1989; Holmbeck *et al.* 1995). Low maternal self-efficacy is related to parents' use of coercive discipline (Bugental & Cortez 1988). Discipline practices that are overly harsh, coercive and abusive, or that are permissive and inconsistent have been linked to the development and maintenance of child behavioural and emotional problems (Feehan *et al.* 1991; Arnold *et al.* 1993).

Research examining the relationship between self-efficacy beliefs, parenting practices and child behaviour has been limited in focus. Self-efficacy can be assessed at three levels: a global or general level without reference to specific tasks or conditions, an intermediate level assessing a range of performances within a particular domain (such as parenting self-efficacy), and a specific level measuring self-efficacy for particular tasks under specified conditions. According to Bandura (1997) task level self-efficacy is a better predictor of performance, as specific self-efficacy beliefs guide a person's behaviour and dictate how well activities are performed.

Although parenting self-efficacy has been shown to affect the quality of parenting provided to children less attention has been given to identifying the specific everyday behavioural demands that parents find hard to manage and settings that are high risk for dysfunctional parenting and inappropriate child behaviour (Sanders *et al.* 1989).

Hence, the present study examined the interrelationship between the three levels of self-efficacy – global, domain (parenting), and task self-efficacy, and their impact on parenting practices. Two measures of task self-efficacy were used to investigate mothers' confidence in dealing with common problems occurring in specific high-risk settings such as shopping trips (setting self-efficacy) and handling common specific child behaviour problems such as whining or tantrums (behavioural self-efficacy).

We predicted that (i) clinic mothers would display significantly lower overall levels of task-specific self-efficacy for each child care setting and specific behaviour than non-clinic mothers; and (ii) self-efficacy would significantly predict dysfunctional parenting practices for the combined sample of mothers after controlling for the effects of parent, child, contextual and sociodemographic variables. Task self-efficacy measures were expected to be most predictive of parenting outcomes.

Method

Participants

A total of 124 mothers with at least one child aged between 2 and 8 years participated in the study, 79 forming a community sample and 45 representing a clinic sample. Sociodemographic characteristics of the two groups are presented in Table 1. Overall the groups were similar on most sociodemographic variables with the exception of mothers' age, $t(122) = 2.02$, $P < 0.05$, and level of education attained, $\chi^2(5, n = 123) = 16.38$, $P < 0.01$, with the non-clinic mothers being slightly older and more educated.

Clinic mothers were recruited through their involvement in the Triple P-Positive Parenting Program at the Parenting and Family Support Centre (PFSC), at the University of Queensland. This Centre serves parents of children with disruptive behaviour problems.

Parents can be referred through a number of avenues including health services, general practitioners, lawyers or self referral. This is a fee paying service.

Table 1. Sociodemographic characteristics of community and clinic samples

	Community (n = 79)		Clinic (n = 45)	
	M	SD	M	SD
Mean mother age (years)*	35.35	5.12	33.27	6.20
Mean child age (years)	4.27	1.26	4.11	1.80
Mean number of child siblings	1.12	0.30	1.20	0.35
	n	%	n	%
Sex of child:				
Male	49	62	27	60
Female	30	38	18	40
Relationship status (%):				
Single	15	19	7	15
Married/de facto	64	81	38	85
Highest educational attainment (%):†				
Less than year 10	2	3	2	4
Year 10/11	3	4	10	22
Year 12	15	19	9	20
TAFE/college certificate	15	19	12	27
Trade/apprenticeship	3	4	0	0
University degree	40	51	12	27
Gross annual family income (%):				
Less than \$25 000	12	16	6	14
\$25 000–50 000	22	29	15	36
\$50 000–70 000	15	19	11	26
Over \$70 000	28	36	10	24

*Groups significantly different on *t*-tests, $P < 0.05$ (two-tailed).

†Groups significantly different on χ^2 tests, $P < 0.05$ (two-sided).

The non-clinic sample was recruited through letters outlining the research to 30 child care centres and kindergartens around Brisbane, asking parents that wish to participate to contact the PFSC. Mothers were contacted by telephone to explain the study and answer questions, following which, survey packages were sent to the family's home or left at the relevant centre for the mother to collect.

Measures

Sociodemographic disadvantage index

The Family Background Questionnaire (FBQ; Sanders *et al.* 1999) provided a cumulative sociodemographic risk index. It was calculated such that respondents scored one point for reporting (i) age of less than 20 years at the target child's birth (ii) highest educational attainment of less than year 12, and (iii) gross family income of less than \$25 000 annually. Following Feehan *et al.* (1991), scoring two or more indicated significant risk, occurring for 4% of non-clinic mothers and 13% of clinic mothers.

Social support

Impact of contextual variables was limited to consideration of social support via a second cumulative risk index. One point was scored for (i) single relationship status, and (ii) falling below the combined sample median ($Mdn = 4$) for perceived social support. Relationship status was assessed by the FBQ. Perceived social support from others was assessed by a

question from a recent Queensland Health survey (Sanders *et al.* in press) asking the extent to which they had felt emotionally supported in parenting over the past 6 months by family, friends and neighbours. Scoring two points was considered to reflect a lack of social support, as was the case for 8% of non-clinic mothers and 9% of clinic mothers.

Child behaviour

Mothers' perceptions of the child's behaviour were assessed with the Eyberg Child Behaviour Inventory (ECBI; Robinson *et al.* 1980), a 36-item measure for children between 2 and 16 years of age. The measure yields scores on two dimensions: the behaviours parents consider problems (problem scale) and frequency with which they occur (intensity scale). The ECBI had an internal consistency of 0.94 (intensity) and 0.93 (problem) in the present sample.

Maternal discipline

The Parenting Scale (Arnold *et al.* 1993) measures parental discipline strategies for 30 situations that yield scores on three scales, laxness, overreactivity and verbosity. This study used the short-form of the Parenting Scale (Hahlweg 1999). Cronbach's alpha coefficients were 0.81 (laxness) and 0.71 (overreactivity).

Global self-efficacy

The General Self-Efficacy scale (GSE) assesses an individual's global and stable perceptions of competence to effectively deal with stressful situations (Jerusalem *et al.* 1992). The GSE contains 10 items scored on a four-point scale that are summed, with higher scores indicative of higher self-efficacy. Cronbach's standardized item alpha was 0.81 for the combined community and clinic sample.

Domain-level maternal self-efficacy

The Efficacy subscale of the Parenting Sense of Competence Scale (PSOC; Gibaud-Wallston & Wandersman, 1978; cited in Johnston & Mash 1989) assessed maternal self-efficacy, which reflects parental feelings of competence, familiarity with the parenting role, and problem-solving skills. Seven items are rated on six-point scales from strongly agree to strongly disagree and reverse scored so higher scores reflect stronger parental self-efficacy. Cronbach's alpha was 0.67.

Task self-efficacy

The Parenting Tasks Checklist (Sanders & Woolley 2001), was created for the current study in order to assess mothers' task-specific self-efficacy. Two subscales were created measuring parents' confidence in dealing with difficult child behaviours (Behavioural Self-Efficacy) and parents' confidence in dealing with difficult behaviour in different settings (Setting Self-Efficacy).

The Behavioural Self-Efficacy subscale comprises 14 items that assess parental confidence dealing with difficult child behaviours on a scale from 0 (certain I cannot do it) to 100 (certain I can do it). The 14 most frequently reported problems were included in the behavioural subscale as identified through a frequencies analysis of reports of difficult

behaviours as measured by the ECBI Problem scale (Robinson *et al.* 1980) in 666 parents seen by therapists at the PFSC. Cronbach's alpha for this subscale was 0.97.

The Setting Self-Efficacy subscale comprises 14 items representing settings in which children may misbehave, such as shopping with the child or having visitors arrive. Settings were identified through the PFSC as the most problematic settings for parents. Parental confidence is rated on a scale from 0 (certain I cannot do it) to 100 (certain I can do it). An average of the 14 items yields the parent's setting self-efficacy. Cronbach's alpha for this subscale was 0.91.

Maternal distress

Assessment of mothers' level of subjective distress was examined with the Depression and Stress subscales of the Depression Anxiety Stress Scale (DASS; Lovibond & Lovibond 1995). The scales each contain 14 items assessing an individual's feelings of distress over the past week, which are summed to provide the Depression and Stress scores. Cronbach's alpha internal consistency reliabilities calculated for the current sample were 0.94 (Depression) and 0.93 (Stress).

Results

Statistical analysis

Hypothesis 1 was tested using *t*-tests. Hypothesis 2 was tested using hierarchical regression in which predictor variables were entered in blocks corresponding to sociodemographic risk factors, child behaviour, social support, maternal distress and self-efficacy.

Preliminary analyses

Table 2 presents the results of *t*-tests and a χ^2 test on each of the measured variables as a manipulation check to ensure that the groups differed on measures of clinical status. Groups were significantly different on all measures except the measure of social support and related contextual risk [χ^2 (4, $n = 123$) = 3.99, *ns*, and *t* (122) = 0.494, *ns*] and the maternal self-efficacy measure [*t* (122) = 1.75 (*ns*)].

Table 2. Differences between community and clinic samples on parenting variables, child behaviour, support variables and sociodemographic risk

Measuret	Community		Clinic		d.f.	t
	M	SD	M	SD		
Sociodemographic risk	0.28	0.53	0.62	0.83	122	-2.81**
Social support	0.66	0.62	0.60	0.65	122	0.49
Global self-efficacy	31.16	3.33	29.91	3.40	122	2.00*
Maternal self-efficacy	28.98	5.09	27.29	5.29	122	1.75
Behavioural self-efficacy	81.86	13.42	61.22	20.47	121	6.74***
Setting self-efficacy	88.66	9.36	79.19	14.75	122	4.37***
Laxness	2.29	0.82	2.96	0.93	122	-4.17***
Overreactivity	2.80	0.77	3.53	0.78	122	-5.09***
Depression	3.04	3.98	7.07	9.63	122	-3.27***
Stress	7.73	5.98	14.84	8.83	122	-5.33***
Child behaviour – intensity	96.84	18.03	140.47	32.63	122	-9.60***
Child behaviour – problem	5.22	5.46	15.05	7.44	120	-8.35***
	M	SD	M	SD	d.f.	χ^2
Social support	3.63	1.04	3.52	1.00	4	3.99

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (two-tailed test).

Differences between groups on self-efficacy for parenting tasks

Table 3 shows that clinic mothers were significantly less confident than non-clinic mothers in handling every child care setting and behaviour except waking and getting the child out of bed. Table 4 lists the five behaviours and settings mothers reported feeling least confident in handling. Clinic mothers were less confident overall than non-clinic mothers in the behaviours and settings they reported as most difficult, however, the behaviours and settings noted by both groups were very similar. Non-clinic mothers felt least confident with the behaviour regarding child refusal to do as told ($M = 78.67$, $SD = 17.48$), while for clinic mothers the child whining or whingeing was considered most difficult ($M = 54.86$, $SD = 26.35$) and this was the only behaviour on which the groups differed.

Table 3. Differences between community and clinic samples on task self-efficacy for each child behaviour and setting

Measure	Non-Clinic		Clinic		d.f.	t
	M	SD	M	SD		
Child behaviour						
Refuses to do as told	78.67	17.48	58.64	22.68	121	5.47***
Upset when does not get own way	78.80	17.04	59.53	22.67	120	5.29***
Defiant when asked to do something	79.94	17.60	56.14	24.52	121	6.22***
Throws a tantrum	81.15	17.75	58.84	26.18	119	5.57***
Yells	83.92	15.76	59.53	25.63	120	6.51***
Answers back	83.23	16.47	59.53	26.09	120	6.14***
Whines or whinges	81.65	16.32	54.86	26.35	121	6.96***
Interrupts	82.15	15.31	61.20	24.10	121	5.89***
Refuses to eat food	80.38	20.60	65.11	30.91	121	3.28***
Refuses to do chores as asked	82.41	16.13	59.55	25.33	121	6.11***
Argues about rules	84.56	17.74	65.00	27.28	120	4.79***
Constantly seeks attention	82.59	15.58	61.02	23.52	121	6.10***
Takes too long dressing	83.86	14.25	68.07	22.24	121	4.79***
Takes too long eating	81.96	16.02	69.20	25.03	121	3.44***
Setting						
Waking and getting child out of bed	93.23	12.76	87.78	19.09	122	1.90
Helping child with bathing	96.65	6.92	90.44	18.82	122	2.64**
Going to the doctor	96.39	7.84	88.22	20.81	122	3.13**
Getting child ready to go out	89.43	14.30	82.00	17.53	122	2.56*
Getting child to use the toilet	93.42	12.16	86.67	22.56	122	2.17*
Shopping with child	82.09	19.70	72.67	21.36	122	2.48*
Travelling in car with child	93.16	9.31	85.00	18.22	122	3.30***
Leaving child at school	92.66	11.65	85.00	23.58	121	2.41*
Visiting friends or relatives with child	90.13	12.30	79.22	20.00	122	3.76***
Visitors arrive at home	89.75	11.82	79.11	20.06	122	3.72***
While speaking to another adult	81.58	14.88	69.77	25.22	121	3.27***
While on the telephone	75.89	18.84	63.41	30.27	121	2.82**
While preparing meals	84.18	18.47	69.66	26.73	121	3.55***
While busy with chores	80.63	18.25	67.50	25.78	121	3.29***

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ (two-tailed test).

Table 4. Five most problematic settings and child behaviours for community and clinic mothers based on lowest task efficacy ratings

	Non-Clinic		Clinic	
	Task	Rating (%)	Task	Rating (%)
Behaviour	Child refuses to do as told	78.67	Child whines or whinges	54.86
	Child gets upset when does not get own way	78.80	Child acts defiantly when asked to do something	56.14
	Child acts defiantly when asked to do something	79.94	Child refuses to do as told	58.64
	Child refuses to eat food	80.38	Child throws a tantrum	58.84
	Child throws a tantrum	81.15	Child gets upset when does not get own way	59.53*
Setting	While on telephone	75.89	While on telephone	63.41
	While busy with chores	80.63	While busy with chores	67.50
	While speaking to another adult	81.58	While preparing meals	69.66
	Shopping with the child	82.09	While speaking to another adult	69.77
	While preparing meals	84.18	Shopping with the child	72.67

*More than one behaviour received identical efficacy rating.

Correlations among parent, child, sociodemographic, social support and discipline variables

Table 5 shows at the bivariate level that higher child behaviour problems, more maternal distress and lower global, domain and task self-efficacy were all significantly related to higher levels of dysfunctional parenting practices, although maternal self-efficacy was not significantly associated with laxness. Sociodemographic risk factors were not significantly correlated with global, domain-level or task-specific self-efficacy. Parenting styles of laxness and overreactivity were most strongly related to parental stress and to behavioural self-efficacy.

Table 5. Correlations among sociodemographic risk, child behaviour, contextual risk, parent variables and parenting practices

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Sociodemographic risk	0.40	0.67	–										
2. Child behaviour	112.67	32.10	0.20*	0.94									
3. Social support	0.64	0.63	0.39**	0.13	–								
4. Depression	4.50	6.86	0.15	0.40**	0.23*	0.94							
5. Stress	10.31	7.90	0.12	0.45**	0.20*	0.74**	0.93						
6. Laxness	2.53	0.91	0.10	0.38**	0.06	0.21*	0.22*	0.81					
7. Overreactivity	3.06	0.85	0.09	0.41**	–0.06	0.37**	0.44*	0.45**	0.71				
8. Global self-efficacy	30.71	3.39	0.07	–0.29**	–0.05	–0.19*	–0.25**	–0.25**	–0.36**	0.81			
9. Maternal self-efficacy	28.36	5.20	0.10	–0.30**	–0.08	–0.37**	–0.32**	–0.15	–0.39**	0.40**	0.67		
10. Behavioural self-efficacy	74.47	19.01	–0.13	–0.62**	–0.06	–0.48**	–0.48**	–0.48**	–0.48**	0.30**	0.41**	0.97	
11. Setting self-efficacy	85.22	12.42	–0.15	–0.59**	–0.06	–0.26**	–0.28**	–0.37**	–0.32**	0.25**	0.30**	0.78**	0.9

* $P < 0.05$, ** $P < 0.01$ (two-tailed).

Coefficient alphas are presented in boldface along the diagonal. Reliabilities not calculated for cumulative risk variables.

Effects of risk variables, child behaviour, maternal distress, and self-efficacy on maternal discipline (Table 6)

Laxness

The model accounted for a significant amount of variance – 26% (adjusted $r^2 = 20\%$) – in maternal use of laxness, $F(9, 110) = 4.23$, $P < 0.001$. After controlling for risk factors, child behaviour and maternal distress, the block of self-efficacy variables was the strongest predictor, accounting for 12% in unique variance. Specifically, of the four self-efficacy components only behavioural self-efficacy emerged as a significant (negative) predictor of laxness, uniquely contributing 9% of variance. The other significant predictor was frequency of child behaviour problems, which positively predicted discipline style and uniquely accounted for 10% of variance. Approximately 3% in shared variance between predictors contributed to the total variance explained by the model.

Overreactivity

Mothers' use of overreactive discipline was significantly predicted when all variables were entered into the equation, $F(9, 110) = 5.56$, $P < 0.001$. Of the 31% total variance explained (adjusted $r^2 = 26\%$), the most useful predictor was child behaviour difficulty, which accounted for 15% in unique variance. In contrast to laxness, results demonstrated that the block of maternal distress could significantly predict increased use of overreactivity after entering risk and child behaviour variables. At the final step of the equation the self-efficacy block was a significant negative predictor of overreactivity, adding 5% in unique variance (3% was explained by behavioural self-efficacy). Shared variance among predictors for this model reached approximately 8%.

Table 6. Hierarchical regression analysis summary for sociodemographic risk, child behaviour, contextual risk, maternal distress, and self-efficacy variables predicting parenting practices (laxness and overreactivity)

Step	Predictor variable	Laxness				Overreactivity			
		R ²	ΔR ²	β	s r ²	R ²	ΔR ²	β	s r ²
1	Sociodemographic risk	0.01	0.01	0.07	0.01	0.00	0.00	0.06	0.00
2	Child behaviour	0.11	0.10***	0.32***	0.10	0.16	0.15***	0.39***	0.15
3	Social support	0.11	0.00	0.02	0.00	0.17	0.01	0.10	0.01
4	Maternal distress	0.11	0.00			0.23	0.06*		
	Depression			-0.08	0.00			0.08	0.00
	Stress			0.09	0.00			0.22	0.02
5	Self-efficacy	0.26	0.15***			0.31	0.09**		
	Global self-efficacy			-0.16	0.02			-0.14	0.02
	Maternal self-efficacy			0.07	0.00			-0.14	0.01
	Behavioural self-efficacy			-0.63***	0.09			-0.29	0.02
	Setting self-efficacy			0.22	0.01			0.09	0.00

*P < 0.05, **P < 0.01, ***P < 0.001 (two-tailed).

Discussion

This study confirmed that clinic mothers reported significantly lower levels of task-specific self-efficacy than non-clinic mothers for all but one of the child care tasks assessed. Analysis of the individual problem behaviours and high-risk settings revealed that clinic mothers rated themselves as significantly less confident than non-clinic mothers in handling 27 of the 28 child behaviours and settings assessed. Interestingly, both groups reported being the least efficacious in handling very similar behaviours and settings. Problematic settings typically involved situations where there were competing demands such as when the parents is talking on the telephone or shopping with the child. These findings support the use of procedures such as planned activities training which is used in the Triple P group and individual programmes to teach parents to plan, anticipate and have appropriate activities available for children at high-risk times (Celiberti *et al.* 1993; Sanders & Dadds 1993). The behaviours mothers found hardest to handle were largely characterized by the child being non-compliant.

The second hypothesis confirmed that the block of self-efficacy variables significantly predicted both parental overreactivity (harsh discipline) and laxness (permissive and inconsistent discipline) after controlling for other variables. For laxness (and approaching significance for overreactivity), behavioural self-efficacy was by far the strongest unique predictor amongst the self-efficacy variables, confirming that self-efficacy measured at the specific task level is most predictive of parenting practices.

The results question the relevance of the maternal self-efficacy construct, which in the current study did not significantly correlate with laxness and failed to significantly predict parenting practices. Maternal self-efficacy did not even differ significantly between groups, a surprising finding given that the samples differed on the more general sense of self-efficacy and on task self-efficacy measures that theoretically should be strongly related to maternal self-efficacy. Potentially, maternal self-efficacy as defined in the PSOC to include familiarity with parenting and problem-solving skills may be conceptually distinct from task self-efficacy, hence causing a discriminant validity problem whereby a measure of self-efficacy across parenting tasks (in this case behavioural self-efficacy) better predicts parental discipline.

It should be noted that the standard deviations in the clinic group tend to be larger than the community group, especially the Behavioural Self-Efficacy, Depression, Stress and Child Behaviour Intensity. This implies that within the clinic sample there is considerable

variability in the extent to which parents experience difficulties across various assessment domains.

In conclusion, the present study confirms that parents seeking assistance for child behaviour problems are likely to have low self-efficacy in the daily tasks of parenting. These findings support the emphasis of interventions such as Triple P that aim to increase parental self-efficacy through teaching parents the skills they need to manage specific problems behaviours (e.g. non-compliance, whining), and pre-emptive or antecedent strategies that enable parents to plan, anticipate, select appropriate activities and encourage desirable behaviour at high-risk times (e.g. talking on the telephone, shopping).

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