Parents' psychological self-concepts and children issues in low-income families in Singapore

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Abstract

Drawing on data from a survey of 430 families who were recipients of a government financial assistance scheme, the study found that different types of children issues affected different types of psychological self-concepts experienced by the sample of low-income parents. While parents' sense of self-efficacy was decreased by children's poor grades, parenting stress was aggravated by both children's health and behaviour problems. The effects were stronger for parents with teenage children than parents with younger children. The findings imply the importance of better integration of services to meet the different needs of low-income families, and of a supportive manner of providing assistance.

Keywords: Self-mastery, aggravation in parenting, children, low-income

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Introduction

Parenting is stressful. Parenting children with special difficulties is even more stressful. Imagine then the tremendous stress of parenting difficult children when worrying about finances. This article studies self-efficacy and parenting aggravation among a group of lowincome parents. It relates these two psychological self-concepts to their reports of three kinds of children issues, namely children's school grades, health, and behaviour.

The theoretical underpinning of self-efficacy and parenting aggravation were derived from studies of populations experiencing economic hardship. In particular, it followed the measures used in the Child Development Supplement (CDS) of the Panel Study of Income Dynamics (PSID) in the United States. Self-efficacy was taken from Pearlin, Mengahan, Lieberman & Mullan (1981), which measures "the extent to which people see themselves as being in control of the forces that importantly affect their lives" (Pearlin et al., 1981, p.340). Pearlin et al. suggested that an adverse life event and role strain such as job disruption can lead to a decreased sense of mastery, which in turn impacts one's stress and functioning.

The theoretical motivation of aggravation in parenting is similar. According to the CDS, aggravation in parenting measures "parenting stress that may result from changes in employment, income, and other factors in their lives" (Panel Study of Income Dynamics, 2010: p. appendix 7). The CDS had adapted the aggravation in parenting scale from a Child Trends evaluation of the impacts on children outcomes of the Job Opportunities and Basic Skills (JOBS) Training Program, a national mandatory program for mothers who were on welfare. The CDS kept two items from Child Trends and added two items, so that aggravation in the CDS measures parenting aggravation in general, whereas aggravation in Child Trends focuses on a particular child.

The scale in Child Trends was in turn adapted from the Parenting Stress Index by Abidin (1990), used to elicit parents' responses on their perceptions of parenting difficulties.

Whether as a general parenting measure or a child-centric measure, the theory base for parenting aggravation follows that in the JOBS evaluation: that economic difficulties and mandatory participation on welfare-to-work programmes aggravate parenting, which in turn has negative effects on parenting practices and adverse effects on children (Zaslow & Dion, 1997; Moore & Ehrle, 1997).

To preview the findings, the study found that the two self-concepts were related to different types of children issues, and that the relationships were stronger for parents of teenage children compared to parents of younger children. Although the cross-sectional nature of the data prevents a causal interpretation, implications could be drawn on the better integration of services and a more supportive manner of providing assistance.

Literature Review

Before reviewing the evidence accumulated so far on the association between socioeconomic hardship, parents' self-concepts, and children's issues, some clarification of concepts and terminology is in order. First, self-mastery and self-efficacy have been used interchangeably, and traced to two different origins. Besides Pearlin et al. (1981), some studies have evoked the self-efficacy by Bandura (1982), which he defines as "people's sense of personal efficacy to produce and regulate events in their lives" (p.122). Similar to Pearlin, Bandura showed that increasing self-efficacy had positive effects such as improved performance in tasks and changes in coping behaviour.

Therefore, self-efficacy or mastery in Pearlin and Bandura are conceptually and theoretically congruent. However, Bandura's conceptualization seems to have been further developed for specific application in parenting. In a review article by Jones & Prinz (2005) on parental self-efficacy (PSE), PSE was defined as "a parent's beliefs in their ability to influence their child and environment in ways that would foster the child's development and

success" (p.342). While deviating from the general self-efficacy measure used in this study, PSE converges towards my other measure aggravation in parenting.

Given the different adaptations in parenting aggravation, one needs to be mindful of whether a child-centric aggravation or a general aggravation is used. Further, parenting aggravation is a subset of parenting stress in general. Some studies have taken other variations of subscales in the PSI by Abidin (e.g. Raikes & Thompson, 2005), which then may be more similar or dissimilar to parenting aggravation, depending on what subscale is used.

With the above overlaps in concepts and terminology, one needs to be mindful of the specification of the psychological self-concepts used as one draws implications and lessons from existing evidence. The specification might lead to differences in results, although similar results might be attributable to the different measures representing the larger general concepts. In this study, self-efficacy represents a general sense of control in one's life, while parenting aggravation represents a general sense of difficulties in parenting.

Most studies including parents' self-concepts have applied them as moderating influences. As a start, evidence has established that economic disadvantage influences children's developmental outcomes through parents' parenting itself as well as parents' distress (e.g McLoyd, 1998; Conger & Dogan, 2007). The contribution of adding parents' self-concept is that these can be targets of interventions to help parents manage their stress and improve their parenting behavior. Pearlin's and Bandura's theories show the moderating influence of self-efficacy on the link between socioeconomic disadvantage and stress and coping. In studies of welfare populations, greater general efficacy was related to increased work, decreased time in homeless shelters, and welfare use (Epel, Bandura & Zimbardo, 1999; Kunz & Kalil, 1999).

In research that have looked at the effects of children on general self-efficacy, the focus seems to have been on the moderating role of efficacy between children's issues and parents' levels of stress. In Jackson (2000), self-efficacy buffered the effects of children's behaviour problems on maternal parenting stress. In Silver, Bauman & Ireys (1995), high self-efficacy moderated the effects of illness-related child functional status on parenting stress as measured by a psychological symptom index.

The research that looked at self-efficacy in parenting seems to have yielded similar results. As summarized by Jones & Prinz (2005), research has found PSE as a consequence of socioeconomic disadvantage as well as challenging child problems such as ADHD, autism, delinquency, or child health problems; and an antecedent to parenting competence. In the reverse, Jackson, Choi & Bentler (2009) found that PSE moderated the effects of parental depression on children's early school adjustment. Indeed, Jones & Prinz suggests that PSE might be a transactional variable. They cited a model by Ardelt & Eccles (2001), where parents with higher PSE may apply more positive parenting strategies, leading to increased chances of children's success, which then reinforces parents' PSE in an upward cycle. In the reverse, parents with challenging children may struggle to maintain high PSE and positive parenting practices, leading to parents giving up more easily.

Such a transactional process might also be the case for parenting aggravation. The studies that focused on the aggravation portion of parenting stress have found significant associations with economic hardship (Raphael, Zhang & Giardino, 2010), and also with having to care for special needs children (e.g. autism, Schieve et al. 2011; mental health problems, Kim, Viner-Brown & Garcia, 2007; behaviour problems, Dunifon & Kowaleski-Jones, 2003). As alluded to earlier, parenting aggravation might be influenced by self-efficacy, although the parenting stress that the studies have focused on could be different from aggravation. For example, Raikes & Thompson (2005) showed that in their sample of

65 low-income mothers, efficacy moderated the effects between income and parenting stress. That is, for mothers with high levels of self-efficacy, income did not affect parenting stress levels, but for mothers with low levels of self-efficacy, it did. Raikes & Thompson used the parenting distress subscale of Abidin's PSI, which included items on parents experiencing an impaired sense of parenting competence, restrictions on activities due to parenting, lack of social support, and depression. Only the first two items overlap with aggravation in parenting. Another relevant finding by Raikes & Thompson (2005) is the finding that for their sample of low-income mothers, other family risks were more influential on parenting stress than income. The risks included low education, lack of English proficiency, own health problems, divorce, homelessness or incarceration, emotional problems, and presence of a child with health or developmental issues. In extension to the present study, in studies of low-income populations, other background stressors might be shown to induce lower self-concepts than income per se.

Overall, there is sufficient evidence showing that socioeconomic hardship and children's problems are related to parents' self-concepts of efficacy and parenting difficulties. However, the direction of causality is less clear, and will require long-term longitudinal studies to uncover. In addition, as noted by Raver & Leadbeater (1999), few studies seem to have focused on self-efficacy as an outcome. While several studies have looked at parenting stress as an outcome, aggravation in general (as opposed to child-centric aggravation) might have received less attention. Huston, McLoyd & Coll (1994) suggested that there was inadequate understanding of the mechanisms behind parental socialization of children in economically disadvantaged families. From the review of literature in this section, it looks like this call for more understanding especially of parents' self-concepts as an outcome is still lacking.

Similar to much of the existing research, this study does not at present have the benefit of a longitudinal set of data, but is based on parents' self-reports at a cross-sectional point in time. However, it contributes to the literature in two ways. First, it assesses three different types of children issues in one study, hence possibly unveiling differential impacts of different types of children problems. While the existing research seems to have separated those on children's health from those on children's academic success and behaviour, this study considers all three together. Second, the present study is set in an Asian context, which might yield different results from Western settings. All the research cited above are based on Western populations. One study was found on an Asian population. In Suzuki, Holloway, Yamamoto & Mindnich (1999), childhood support from parents and present support from husband increased maternal efficacy in both Japan and the United States. Other studies also suggested the role of social support in decreasing parenting stress (e.g. Jackson, 2000; Raikes & Thompson, 2000).

Methods

Data and Sample

This study is part of an evaluation of a government Work Support Programme (WSP). WSP is not mandatory. Recipients have to apply for assistance and meet eligibility criteria which include monthly household income below SGD1,500, have little or no savings, have inadequate family and community support, and willingness to take steps to become selfreliant. However, while in the programme, they are mandated to work and make efforts towards financial independence in return for financial assistance (Ministry of Community Development, Youth and Sports (MCYS), 2010a).

Aimed at helping recipients find employment and work towards financial independence through interim financial support and other assistance, recipients receive

monthly cash assistance which is calibrated based on the unique circumstances of their families. In many cases, clients also receive assistance for the payment of utilities and conservancy charges. An action plan is drawn up to list out ways to address issues that might prevent recipients from working or achieving self-reliance. Households with children below 18 years of age are case-managed with regularly monitoring to assess their progress in implementing their action plans.

The data for the study was from a survey of recipients when they were first placed on WSP. This might be expected to be a stressful time when recipients' self-concepts of their abilities are diminished, as their financial difficulties had driven them to apply for government assistance.

During the period March to December 2010, a total of 466 recipients were surveyed, representing a response rate of 76% of all recipients during that period. The sample for this study consisted of 430 parents who had at least one child who was below 21 years of age. As the interest of the study was in children's developmental issues, 32 recipients whose children were above 21 years old were excluded. Four cases with exceptionally high household earnings (above S\$6,000) were also excluded. These might have been atypical financial assistance recipients who were not usually low-income, but might have been placed on WSP during a period of temporary job loss.

Dependent Variables: Parents' Self-Concepts

Self-mastery and aggravation in parenting were included in the study as psychological factors that might be caused by financial hardship, and which might influence recipients' ability to cope with life. They followed the measures in the CDS and were found to be valid and reliable in a pilot test.

Aggravation in parenting (α =.76) consisted of four items which were answered on a Likert scale of 1 for "not at all true" to 5 for "completely true": being a parent is harder than I

thought it would be; I feel trapped by my responsibility as a parent; I find that taking care of my child(ren) is much more work than pleasure; and I often feel tired, worn out, or exhausted from raising a family.

The Pearlin self-mastery scale (α =.80) was answered on a scale of 1 (completely disagree) to 4 (completely agree). It also contained four items: there is really no way I can solve some of the problems I have; I have little control over the things that happen to me; I often feel helpless in dealing with the problems of life; and there is little I can do to change many of the important things in my life.

The scales were constructed by taking mean values of the four items in each scale. A higher value represents a more negative self-concept. The correlation between self-mastery and parenting aggravation of 0.38 was high and statistically significant at 5% level of significance.

Independent Variables

The first set of independent variables included individual socioeconomic factors which might influence respondents' perceptions of their self-efficacy and parenting aggravation, namely the family's monthly earnings, the respondent's highest educational qualification, and the respondent's report of social support. Highest educational qualification was an index from 1 to 5, which were (in increasing order) primary and below, some secondary, 'N' or 'O' Level, 'A' level or polytechnic, and bachelor degree and above. There were 14 missing entries for this variable (4%). Hence, in the regression analysis, the median value of "some secondary" was imputed, and an indicator variable for missing education was added.

Social support was measured using the Lubben Social Network Scale (LSNS)-6 (α =.80), where respondents answered the same three questions on family members or

relatives and friends or neighbours. The three questions asked how many family members or relatives (friends or neighbours): they heard from at least once a month, felt at ease to talk about private matters, and could call on for help. The answer choices were 0, 1, 2, 3 (for three or four), 4 (for five through eight), and 5 (for nine or more). The social support scale was constructed by summing the six items, where a higher value represents a larger social network.

The second set of independent variables comprised the variables on children. They consisted of the respondent's report of having at least one child (a) with poor grades in school; (b) with a physical, learning, or mental health condition that limited their regular activities; and (c) who was somewhat or extremely difficult in terms of behaviour.

Finally, a set of demographic variables were included as control variables. These included the age of the oldest child who was below 21 years old, age of the respondent, dichotomous variables for Malay and Indian ethnicities (so that Chinese and other ethnicity are the base categories)¹, a dummy for male (female is omitted), number of children, and a dummy for unmarried (i.e. divorced, widowed, or never married).

Empirical Strategy

All the above independent variables were regressed independently on the two dependent variables separately. A regression of parenting aggravation on self-efficacy in addition to the other variables did not decrease the coefficients of the other variables, indicating no moderating effect of self-efficacy on parenting aggravation as suggested by some studies. This regression result is therefore not reported in this article. Log values of parenting aggravation, self-mastery, and family earnings were taken, so that the results represent proportion of change in these three variables. This makes the three variables more comparable.

¹ Data relating to ethnicity will not be published.

The age range for children from zero to 20 is very wide, and contains different significant developmental stages in a young person's life. Therefore, besides analyses with the whole age range, analyses with the following two age restrictions on the oldest child below 21 years old will also be discussed: (a) 12 or younger; and (b) 13 or older.

Findings

Descriptive Results

Table 1 gives the summary statistics of the variables used in the analysis. The background variables indicate a disadvantaged group, where the mean family earnings of \$920 was below the tenth percentile of Singapore's household income distribution (Department of Statistics, 2011), a majority of the recipients had less than primary education, and the single parenthood rate of 20% was much higher than the national divorce rate of 0.75% (MCYS, 2010b). Further, the mean LSNS-6 value of 6 is just at the threshold of being classified as isolated. Taking this cut-off, about 60% could be considered isolated.

Most respondents were middle aged, with mean age at 40. However, the age range of the parents was wide, from 21 to 68. The age of the oldest child who was below 21 years old was used as a proxy for the age of children. The mean was 13, which corresponds with the middle age of most parents. Respondents had between one to nine children, with a mean of 3. In terms of gender, females (66%) were over-represented., This was possibly due to more females being put as the main applicant in the family.

There is no national data to use as comparison for the respondents' reports of children problems. However, the 35% for poor grades, 22% for health limitations, and 30% for difficult behaviour are high when considering that they represent roughly 1 in 3 families for poor grades and behaviour problems, and 1 in 5 for health limitations. The types of health

limitations were wide ranging, with the top five being asthma (13%), developmental delay or mental retardation (4%), learning problems (3%), sinus (2.56%), and attention deficit and hyperactivity (1.86%).

Our sample of parents might be more aggravated in parenting but have a stronger mastery of their lives than other samples. The parenting aggravation mean value of 2.78 was significantly higher than the 2.37 reported for CDS I caregivers (Dunifold & Kowaleski-Jones, 2003), and the Pearlin score of 2.47 was significantly smaller than the 3.11 for CDS II caregivers (The Panel Study of Income Dynamics, 2010).

Regression Results

The regression results show differential impacts of children's issues on the two self-concepts (Table 2). In the regressions of the whole age range, children's health and behaviour problems were significantly associated with aggravated parenting (column 1) whereas children's poor grades in school was significantly associated with diminished self-efficacy (column 2). The effect sizes were big compared to other factors, where parents who had a child with health limitations rated 15% more aggravated in parenting, those who had a child with difficult behaviour were 25% more aggravated, and those who had a child with poor grades were 8% less efficacious.

Dividing the analysis into a young group and teenage group shows that most of the results were driven by teenage children. The significant results for all three children issues held for the teenage group, but for the younger group, the coefficients of poor grades and health limitations were no longer significant. However, the effect size of a child with difficult behaviour was larger for the young age group (31%) than for the teenage group (21%).

The results from age also seem to be driven by the teenage group, with both the age of children and age of respondent significantly predicting self-mastery, but not parenting aggravation. For age of the oldest child who was below 21 years, respondents with older

children had more escalated mastery problems. Conversely, younger respondents with teenage child(ren) felt less mastery over their lives.

The effect of social support, however, was larger among the group with younger children. A unit increase in the LSNS-6 improved respondents' sense of mastery by 1.6% for the group with younger children, and by .9% for the whole sample. It was not significantly related to parenting aggravation.

Some results were different for the whole sample and the sample by age group, in particular the older group. While estimates of family earnings were not statistically significant for the whole and the younger samples, it was significantly related to a better sense of mastery for those with teenage children. Similarly, female respondents with teenage children had a significantly better sense of mastery than male respondents. This gender difference did not hold for those with younger children. Overall, it appears that the group with teenage children yielded more significant results.

Discussion

The results in this study support the existing evidence and also reveal potential new findings. First, family earnings did not relate to the self-concepts, except to self-efficacy for respondents with teenage children. As Raikes & Thompson (2005) asserted, this might be because the whole sample were low earners. More significant results might surface if the sample was made up of respondents from a more diverse economic background.

Second, for this sample of low-income families, children issues had large and significant effects on the parents' sense of efficacy and parenting stress. A potential new finding is that the self-concepts might be related to different types of children issues. Consistent with existing research, children's health and behaviour problems aggravated parenting. Children's difficult behaviour was particularly aggravating.

However, children's poor academic performance did not stress parenting, but led to a loss of mastery. Parents might feel less control over children's school performance, especially for teenage children. This finding might unearth interesting cultural reasons if explored further. In Singapore, education is given high priority. The education system is highly competitive, ranking top in global rankings. Singaporean students also consistently rank among the top in international assessments (Ministry of Education, n.d.). Might such a context lead to parents feeling helplessness rather than parenting stress when children do not do well in school? Might this helplessness be felt by low-income parents more than middleincome or higher parents? A study analysing the inter-relation between parents' self-concepts and children's school performance by SES might provide interesting insights.

The loss of self-mastery seems to hit parents with teenage children harder. Further research might also help to discover whether this result is cultural or general. Besides children's poor grades, respondents with lower earnings, who have older children, and who are younger seem to have an especially hard time gaining a sense of mastery over their lives when children are in their teenage phase. Combined with the stronger results also for aggravation experienced by parents of teenage children, it could be the case that the life stage of a mature family with teenage issues is more susceptible to external and predisposed risks.

As the data source is cross-sectional, the above possible effects of children's issues and other background risks on parents' self-concepts cannot be concluded as causal. The effects could also be in the opposite direction, where individuals who have a low sense of mastery over their lives and who are highly stressed as parents tend to have difficulties, resulting in low-earnings and children problems. However, several features in the current study support the causal direction from the external factors to the self-concepts. First, some children's poor health such as developmental delay are congenital. Second, that the effects

were stronger for parents with teenage than younger children also implies some triggering role of this life stage.

Other limitations in the study relate to the measurement of the variables. All the variables were self-reported by respondents, and therefore findings reflect the respondents' perceptions of the various issues rather than the actual situation. Further, while self-efficacy and parenting aggravation were derived from instruments, reports of children conditions were based on a single question answered by respondents. It might be the case that a person with lower efficacy rates their children's conditions more negatively.

However, for interventions, it might not matter whether individuals' self-concepts are shaped by the environment or vice versa. Helping a person gain or regain a sense of mastery and ameliorate parenting stress are important ends of themselves. A programme evaluation will be required to study whether improving these self-concepts improve functioning. For this population of WSP recipients, the question of interest would be whether improving these selfconcepts improves their ability to be financially self-reliant. From the existing theories on these two self-concepts, improving self-mastery can be important to improving financial coping and managing parenting stress can improve subsequent child outcomes. These suggest that financial assistance programmes aimed at moving recipients out of poverty or financial difficulties might have limited effectiveness if they do not also address recipients' psychological barriers to help themselves, or the factors that might shape these barriers.

For families that are case managed, case officers discuss with recipients action plans that are used to work towards improving recipients' financial situation and overcoming any barriers to employment. Recipients who require assistance beyond financial assistance, such as family counselling, are referred for services in relevant agencies. The case management model in WSP, where financial assistance combines with an action plan targeting social besides economic barriers to employment, is an important model to guide financial assistance

programmes. Poverty is seldom an economic issue alone, and the findings in this study suggest that children issues and parents' aggravated self-perceptions might be impediments to economic maintenance or advancement.

The case management model of WSP illustrates the ongoing collaborations between government agencies that implement the financial assistance programmes and nongovernment agencies that provide counselling and casework in Singapore. However, Singapore is exploring how to better integrate the services to meet the multi-dimensional needs of the low-income families. This is an important direction, given the findings in this study. In his speech in parliament on October 20, 2011, Singapore's Prime Minister Lee Hsien Loong spoke of a comprehensive whole-of-government approach to address the issues of those "who are left behind" and "finding it harder". He opined that helping this disadvantaged group should not be the responsibility of the MCYS alone, but for the whole government. As illustrated in the children issues covered in this study, the issues would involve the Ministry of Health, the Ministry of Education, as well as the Ministry of Manpower in terms of the training and employment of parents. A whole-of-government approach to strive for a no wrong door policy where those in need will get help regardless of which door they go through might better tackle service gaps that cause individuals who need particular services but are rejected because the requisite services is not available at the agency that the individual first approach and appropriate referrals and follow-ups were not made to the correct agency. A more integrated, wrap-around service model will be more effective, especially if common issues can be identified and brought into the core of a financial assistance programme. For example, financial aid disbursement, training and job placement, and psychosocial counselling could be sited within one unit rather than across different departments. This would enable that unit to work with the recipients on their psychological besides skills readiness to start a new job, and thereafter monitor the recipients' progress at

work and home to have a more holistic assessment of their continued need for financial assistance. The one-unit model could involve a single case officer working on all three aspects of financial disbursement, job placement, and psychosocial counselling, or a team of officers working closely on the case. Feasibility studies would be needed to explore the practical implementation issues of such an intervention model.

In the case of WSP, as a temporary financial relief programme, even while it takes a case management approach, its core focus will not be addressing psychosocial stressors faced by recipients such as children issues. These are referred out, and the extent of follow-up is likely subject to the discretion of case officers. The programme could be more integrated with an agency that provides psychosocial assistance that aids recipients in their self-concepts in relation to their financial struggles and children issues. It could be integrated into a single programme. Such a more holistic approach might more effectively move people out of poverty.

For example, in United States and United Kingdom, Employment Retention and Advancement (ERA) programmes have been piloted with some success (Hendra et al, 2010; Greenberg & Morris, 2005). These programmes are a step-up from welfare-to-work (WTW) programmes in that they encourage participants not just to work, but to move up to higherpaying jobs. ERAs are more integrated than traditional WTW programmes. They involve multi-agency collaborations between the government, the non-government agency that provides the service, and corporations that hire the participant. The case officer works with participants on pre- and post-employment issues and provides counselling on job-related issues. In early evaluations with experimental designs, decrease in unemployment and welfare reliance was found (Hendra et al., 2010; Roccio et al., 2008; Miller et al., 2008). The evaluation in the United States compared programmes in different sites, and the more successful programmes seemed to be more intensive, with greater engagement between case

officer and participant, and more help given in retention and advancement activities (Hendra et al., 2010).

Another implication of the role of self-perceptions in achieving self-reliance is that the manner in which case management is conducted matters. Applying for financial assistance and then being made to comply by conditions in return for assistance is a stressful process. Whether one's case officer shows a supportive and understanding posture or takes a strict task-master stance could make a big difference to one's confidence and sense of mastery over their life situation. Further research can help to verify whether this implication makes a difference.

Conclusion

The general application of the findings in this study is that financial assistance programmes can no longer stay in the realm of only temporary economic assistance. Facing also psychosocial issues that have bearings on one's ability to maintain financial capability is prevalent and common among bottom earners. As such, interventions addressing these psychosocial issues need to be brought into the core of financial assistance programmes. The integration might take the form of a single wrap-around programme where common psychosocial as well as economic issues are addressed by one case officer or a team. It might take shape as a seamless form of integrated services across agencies or departments. The manner in which the programmes is delivered also plays a part in improving or impeding one's psychosocial functioning for greater self-reliance. The possible transactional effect from and on children highlight the long-term intergenerational impacts on poverty and mobility that improvements can have.

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Table 1. Summary Statistics

	Mean	SD	Range	%	Ν
Dependent variables			_		
Aggravation in parenting scale	2.82	1.26	1-5		426
Pearlin self-mastery scale	2.48	.73	1-4		428
Individual's characteristics					
Monthly family earnings	\$929.55	\$610.49	\$0-\$3,320		430
Highest educational qualification					413
Primary & below				40.92%	169
Some secondary				28.09%	116
'N' or 'O' Level				18.64%	77
'A' Level or polytechnic				9.69%	40
Bachelor degree or above				2.66%	11
Lubben social network scale	6.02	5.66	0-25		430
Children's issues					
Has a child with poor grades				34.88%	430
Has a child with health limitations				21.86%	430
Has a child with difficult behaviour				30.00%	430
Age of oldest child who is below 21	12.70	5.09	.25-20		430
Demographic characteristics					
Age of respondent	39.79	8.91	21-68		429
Gender (female omitted)					
% males				35.12%	430
Number of children	3.12	1.36	1-9		430
% who are not married				20.33%	428

Table 2. Regression results						
	All		Oldest child < 13		Oldest child $>=13$	
	(1)	(2)	(3)	(4)	(5)	(6)
	Log	Log	Log	Log	Log	Log
	(parenting)	(mastery)	(parenting)	(mastery)	(parenting)	(Mastery)
Log(Monthly family	-0.001	-0.010	0.016	-0.005	-0.009	-0.016
earnings)	(0.009)	(0.005)	(0.012)	(0.008)	(0.012)	(0.008)*
2 /		× /	× /	× ,	× /	
Highest educational	-0.024	-0.015	-0.007	-0.000	-0.045	-0.022
Qualification	(0.024)	(0.015)	(0.034)	(0.022)	(0.034)	(0.021)
Quanneation	(0.021)	(0.015)	(0.051)	(0.022)	(0.031)	(0.021)
Lubben social support scale	0.004	-0.009	-0.009	-0.016	0.011	-0.005
Eubben soeiar support searc	(0.004)	-0.002	(0.007)	(0.005)**	(0.006)	(0.003)
	(0.004)	$(0.003)^{11}$	(0.007)	$(0.003)^{**}$	(0.000)	(0.004)
	0.041	0.076	0.010	0.057	0.092	0.000
Has a cliffic with poor	0.041	0.076	-0.018	0.037	0.085	0.098
grades	(0.054)	(0.025)*	(0,004)	(0.054)	(0.074)	(0.047)*
	(0.054)	(0.035)*	(0.084)	(0.054)	(0.074)	(0.047)*
	0.1.50	0.050	0.000	0.0.00	0.150	0.0.60
Has a child with health	0.150	0.072	0.088	0.068	0.173	0.068
Limitations	$(0.060)^*$	(0.039)	(0.091)	(0.058)	$(0.085)^*$	(0.054)
Has a child with difficult	0.247	-0.007	0.313	0.030	0.214	-0.038
behaviour	(0.056)**	(0.036)	(0.084)**	(0.054)	(0.079)**	(0.050)
Age of oldest child who is	0.008	0.012	0.006	0.013	0.013	0.030
below 21 years	(0.007)	(0.005)**	(0.015)	(0.010)	(0.018)	(0.011)**
•						
Age of respondent	-0.002	-0.006	-0.001	-0.003	-0.007	-0.012
	(0.004)	(0.003)*	(0.006)	(0.004)	(0.006)	(0.004)**
	(0.000)	(00000)	(00000)	(0.000)	(00000)	(0.000)
Male	0.037	0.035	-0.068	-0.069	0.162	0 1 5 9
	(0,060)	(0.039)	(0.085)	(0.055)	(0.087)	(0.055)**
	(0.000)	(0.05))	(0.005)	(0.055)	(0.007)	(0.055)
Number of children	0.008	0.022	0.065	0.027	0.022	0.024
Number of emildren	-0.008	-0.022	(0.034)	(0.027)	(0.022)	-0.024
	(0.021)	(0.014)	(0.034)	(0.022)	(0.028)	(0.018)
NI-4 manufad	0.026	0.002	0.090	0.120	0.051	0.100
Not married	0.036	0.002	0.089	-0.120	0.051	0.100
	(0.065)	(0.042)	(0.109)	(0.070)	(0.083)	(0.053)
	0.101	0.1.1.7	0.051	0.045	0.000	0.0.50
Education missing	0.194	0.145	0.071	0.045	0.338	0.253
	(0.126)	(0.081)	(0.165)	(0.105)	(0.199)	(0.127)*
Constant	0.839	1.150	0.917	1.048	0.880	1.102
	(0.166)**	(0.106)**	(0.251)**	(0.160)**	(0.340)*	(0.214)**
Ν	423	425	193	193	230	232
R ²	0.11	0.09	0.16	0.14	0.13	0.13

Table 2. Regression results

Standard errors in parentheses * significant at 5%; ** significant at 1%