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Perceived Parenting Support

Relationship to Parenting, Parent Self-Regulation and Child Social, Emotional and Behavioural Problems

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Research Summary

Why was the research done?

Improving child wellbeing is important for individuals, families and communities. Much research shows that strengthening child and family wellbeing, particularly during the early years, provides strong foundations for children and adults to flourish throughout the life course. One way to potentially achieve this is through strong support to parents.

This paper examined whether parent's perceptions of formal and informal support are associated with child wellbeing. We defined informal support as support provided by immediate family, friends and extended family and neighbours. Formal support included community leaders and other adults in the community, child carers and teachers, and other community services (e.g., family doctor, nurse, psychologist). We used data from a cross-sectional parenting survey undertaken in 2018 in South-East Queensland and Northern New South Wales. Respondents were 2,654 parents with a child under 15 years of age.

What were the key findings?

Just over half of parents in the sample perceived their child to have social, emotional, behavioral problems with three quarters indicating these as being moderate to severe. Further, parents who reported child difficulties were more likely to experience greater social disadvantage. We found that informal support was negatively associated with child problems and the severity of child problems, whereas formal support was positively related to child problems and the severity of child problems. We also found that parents with higher levels of self-regulation and better parenting practices reported lower child social, emotional and behavioral problems.

What does this mean for policy and practice?

Our study highlights the importance of social support for both parents and children for improving child social, emotional and behavioral outcomes and points to the importance of strong institutions (e.g., medical, psychological), informal communities and social networks (friends, neighbours, families) to ensure children thrive. These sources of support are particularly important for socially disadvantaged families. Policy and practice that strengthens these support services will improve outcomes for children.

Citation

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Abstract

This study explored the association between parents' perceptions of their informal and formal supports, parent self-regulation, parenting practices and child problems. Our aim was to examine whether perceived parenting supports were associated with child social, emotional and behavioral problems. We used data from a community sample of 2,654 parents of a child or children under 15 years of age. After controlling for demographic factors, structural equation modelling revealed that both informal and formal supports were directly related to child problems. We found that informal support was negatively related to child problems and child problem severity, whereas formal support was positively related to child problems and child problem severity. We then examined how parent self-regulation and parenting practices mediate these associations. Informal support was indirectly related to child problems, whereas formal support was indirectly related to child problem severity. We discuss findings in terms of the benefits of formal and informal supports for both parents and children for maintaining parents' self-regulation and improving child social, emotional, and behavioral problems.

Keywords: parent; support; self-regulation; child social; emotional and behavioral problems

Highlights:

- Formal and informal social support for both parents and children were associated with child social, emotional and behavioral problems
- Parent self-regulation and lower levels of ineffective parenting practices were associated with lower child social, emotional and behavioral problems
- Formal social support was found to be associated with child social, emotional and behavioral problems via parental self-regulation and parenting practices

1 Introduction

Child social, emotional and behavioral problems are important to address for individuals, families and communities worldwide. A substantial proportion of children and adolescents experience difficulties at levels that impact their daily lives and those of their families. Surveys of Australian parents indicate that between 10 – 20% of parents report that their children experience behavioral and emotional difficulties that they find difficult to manage (Kieling et al., 2011; Lawrence et al., 2016; Polanczyk et al., 2015). These difficulties, if unaddressed are associated with the development or maintenance of more serious social and mental health issues during adolescence and into adulthood (Patel et al., 2007).

Parenting practices are well established risk and protective factors for child problems (Odgers et al., 2012; Oravecz et al., 2008; Sanders & Turner, 2018; Varshal & Slobodskaya, 2022; Yap et al., 2014). Positive parenting that is perceptive and responsive and characterised by warmth, acceptance, encouragement and consistency has been related to positive outcomes for children and adolescents. Conversely, harsh, hostile, ineffective and inconsistent parenting has been related to poor outcomes.

Parent self-regulation has also been shown to be important. Self-regulation includes the processes that enable a parent to guide their goal-directed activities over time and across changing circumstances (Bandura, 1991) and consists of self-sufficiency (being an independent problem solver with the personal resources, knowledge and skills to maintain any gains achieved and to tackle future problems); self-efficacy (the parents' confidence in their capacity to solve problems); personal agency (the attribution of changes or improvements in their family situation to their own or their child's efforts rather than to uncontrollable events); and, self-management (tools and skills to change their parenting practices) (Sanders & Burke, 2014).

Parents must flexibly use these self-regulatory skills to inhibit impulsive actions, solve problems, regulate their own emotions and behavior and create a supportive child rearing environment (Bridgett et al., 2015). Research shows that parents with the capacity to flexibly adapt their own behavior in accordance to the current needs of their children are likely to use positive parenting practices that promote good outcomes in children (Sanders & Mazzucchelli, 2013). Evidence also suggests that self-regulation skills are likely to pass from generation to generation (Bridgett et al., 2015).

Access to social support, in the form of emotional, instrumental or practical support has been shown to influence parenting quality (Green et al., 2007) and more specifically, behaviours (Odgers et al., 2012). Social networks influence parenting by modelling what works, encouraging persistance during difficult times

and providing knowledge, skills and emotional support (Love & Knott, 2018). Lower levels of social support have been associated with higher levels of maternal parenting stress (Hong & Lee, 2019). Emotional (e.g., showing care and compassion) and instrumental (e.g., financial, physical assistance) support have been associated with more effective parenting practices such as increased parenting consistency, better parent-child communication and parental monitoring (Byrnes & Miller, 2012; Marra et al., 2009) and have been associated with reduced anxiety in the attachment relationship (Green et al., 2007). Moreover, social support has also been found to influence child outcomes (Oravecz et al., 2008).

The role and impact of social support may differ for individuals based on characteristics such as their socio-economic circumstances. The protective role of social support for parents has been shown to be lower in more disadvantaged communities, (Ceballo & McLoyd, 2002; Turney & Harknett, 2010), thus potentially indicating higher parental social isolation and lower nurturing parental behaviors compared to less disadvantaged communities (Ceballo & McLoyd, 2002). It is possible that the effect of neighbourhood characteristics on parenting may be influenced by social support, with multiple studies demonstrating that higher levels of perceived social cohesion within a neighbourhood are related to greater social support and that parents who report higher social support also report more effective parenting (Byrnes & Miller, 2012; Maguire-Jack & Wang, 2016).

To date, studies exploring the role of social support in parenting have focused on parenting practices rather than parental self-regulation and on types of support (e.g., instrumental versus emotional) rather than the sources of support (e.g., informal sources such as family, friends and other parents or formal sources such as health, family support or education professionals). Little is known about which sources of support are perceived as more beneficial and utilised in which circumstances (McIntyre & Brown, 2018). Understanding whether and how different sources of support influence parenting behavior and capacity for self-regulation and their influence on child problems, has implications for policy and practice, potentially guiding the types of supports for families at the family and community levels.

We explored the relationships between perceived parenting support provided by informal supports (partner, extended family and friends, neighbours and community leaders) and more formal sources (family doctors, psychologists, counsellors) and their relationship to parenting practices, parental self-regulation and child social, emotional and behavioral problems. Our data, as described below is cross-sectional and does not permit causal explanations. Rather we examine associations between variables at a single point in time.

1.1 Aims and Hypotheses

Our aim is to examine whether:

1. Perceived support for parenting influences child social, emotional and behavioral problems indirectly through parenting practices and parent self-regulation;
2. Both formal and informal supports for parenting have similar effects on parenting practices, parent self-regulation and child social, emotional and behavioral problems;
3. These relationships are consistent in a subsample of children identified as having higher levels of perceived difficulties.

Figure 1 provides an overview of the expected associations between the key variables in our analyses. Specifically we hypothesise that:

1. Ineffective parenting practices and low parent self-regulation would be positively related to the presence of child social, emotional and behavioral problems (presence of problems and severity of problems).
2. Ineffective parenting practices would mediate the relationship between parent self-regulation and child social, emotional and behavioral problems.
3. Formal support for parenting would be directly related to:
    a. Greater parent self-regulation perceptions and less ineffective parenting practices and that parent self-regulation would mediate the relationships between formal support and ineffective parenting practices, with formal support being positively associated with greater parent self-regulation perceptions which would in turn lead to less ineffective parenting practices.
    b. Fewer child problems and that this association would be serially mediated by parent self-regulation and ineffective parenting practices, with formal support being positively associated with greater parent self-regulation perceptions, then less ineffective parenting practices, which in turn would be positively associated with fewer child problems.
4. Informal support for parenting would be directly related to:
    a. Greater parent self-regulation perceptions and less ineffective parenting practices and that parent self-regulation would mediate the relationships between informal support and ineffective parenting practices, with informal support being positively associated with greater parent self-regulation perceptions which would in turn lead to less ineffective parenting practices.

b. Fewer child problems and that this effect would be serially mediated by parent self-regulation and ineffective parenting practices, with informal support being positively associated with greater parent self-regulation perceptions, then less ineffective parenting practices, which in turn would be positively associated with fewer child problems (presence of problems and severity of problems).

INSERT FIGURE 1 ABOUT HERE

2 Method

2.1 Data

Data come from the Raising Children in Your Neighbourhood (RaCYN) survey conducted as part of the Every Family study, a quasi-experimental study examining the effects of community-wide implementation of evidence-based parenting support on population levels of child, family and community wellbeing in lower socio-economic status areas. The survey was designed to understand whether parenting support information and programs were reaching families and to capture experiences of parenting and beliefs about support for parents in raising their children in their community. The sample obtained for the cross-sectional RaCYN survey was a convenience sample of parents who volunteered to complete the survey anonymously.

Respondents were parents and caregivers with at least one child under 15 years of age undertaken in the second half of 2018 in South-East Queensland and Northern New South Wales. Due to missing data for demographic variables, our sample size was reduced from 3,050 to 2,654. Parents and caregivers were instructed to answer the parenting questions in relation to their child aged 3-8 years. If they had more than one child in this age group (n = 1012) or did not have a 3- to 8-year-old child (n = 567), they were instructed to answer questions in relation to the child they had the most difficulties with. If a family had multiple children aged 3-8 years with the same level of parent-reported behavior difficulties, then we randomly selected one of them. If a family had no child aged 3-8 years but had multiple children with the same level of parent-reported behavior difficulties, then we randomly selected one.

Table 1 shows the demographic characteristics of respondents in the analysis. The majority (Model 1 = 95.86% and Model 2 = 96.75%) of participants were mothers ranging in age from 18 to 77 years (M = 36.81 years, SD = 6.83). Most (82.89%) of the participants were in a couple family (i.e., intact family, step-family, blended family), were in a household that had at least one person working full time (75.17%) and had no difficulties meeting essential expenses (66.13%). Half of all participants (49.77%) had completed a university

degree or higher and most (60.51%) came from Oceania backgrounds (e.g., Australia, Papua New Guinea, New Zealand). On average, there were 2.28 children per family (SD = 1.14). The mean age of target children was 5.40 years (SD = 2.58 years, range = 0 to 14 years), with slightly more boys (53.99%) than girls.

INSERT TABLE 1 ABOUT HERE

We obtained approval for the survey from the research ethics sub-committee at the XXXXXXXX (Approval Number: 2018001027) and the research services in the Department of Education of both the State Governments (XXXXX and XXXXXX). Recruitment strategies to obtain the sample included promotion through social media, local businesses and educational settings. We also undertook targeted recruitment in communities that were implementing the evidence-based parenting program and their matched control communities. We recruited parents through childcare centres, schools and Facebook. Parents completed the anonymous online survey on a dedicated webpage. We provided parents with an online information sheet to inform them about the aims of the study before they completed the survey.

2.2 Measures

2.2.1 Demographic Characteristics

We included a number of demographic questions in the RaCYN survey. Dichotomous variables were created for the following categorical variables: highest level of education of parent (University degree or higher=1); family structure (couple family=1); household work (at least one adult in full time work=1); financial circumstances (no difficulties meeting essential expenses over the past 12 months=1); and child gender (male=1). We included parent and child age as continuous variables.

2.2.2 Child Presence of Problems and Severity

We assessed social, emotional, and behavioral problems in children via a series of questions that asked parents to report on the difficulties that their children experience. These questions are global measures of child functioning and had been used in the Western Australia Child Health Survey (Zubrick et al, 1995). All parents were asked to respond 'yes' or 'no' for their child as to whether they considered them to have had any social, emotional or behavioral problems over the past 6 months (referred to as "presence of problems"). If 'Yes' was recorded for any social, emotional, or behavioral problems, parents indicated how difficult their child's problems had been over the past 6 months (1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Very, 5 = Extremely) and this is referred to as "severity of problems".

2.2.3 Informal and Formal Support

We asked parents how supportive the following six sets of people had been for them in their parenting role over the last 6 months. Informal support was represented by (i) immediate family, (ii) friends and extended family (e.g., aunts, uncles, cousins), and (iii) neighbours. Formal support was represented by (iv) community leaders and other adults in the community (e.g., religious leaders), (v) child carers and teachers, and (vi) other community services (e.g., family doctor, nurse, psychologist). Responses were collected on a 5-point scale (1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Very, 5 = Extremely) with higher scores reflecting greater levels of social support. Informal and formal support scores were the average of the responses.

2.2.4 Parent self-regulation

Parents completed the Me as a Parent (MaaP; Hamilton et al., 2015) questionnaire. The 16-item MaaP assesses four domains of parent self-regulation: personal agency; self-sufficiency; self-management; and self-efficacy. Responses are scored on a 5-point scale (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree), with higher scores reflecting higher levels of self-regulation. Subscale scores were computed by summing items within each domain. The original validation paper by Hamilton et al. (2015) reported adequate internal consistency for the four-item subscales of self-efficacy, personal agency, self-management, and self-sufficiency (Cronbach's alphas of 0.73, 0.69, 0.69, and 0.62 respectively). In the present study, the internal consistency for the four-item subscales were self-efficacy (alpha = 0.86), personal agency (alpha = 0.68), self-management (alpha = 0.74), and self-sufficiency (alpha = 0.78).

2.2.5 Ineffective Parenting

Parents reported on parenting practices using the parenting scale of the Parenting and Family Adjustment Scales (PAFAS; Sanders et al., 2014). The original PAFAS has an 18-item, four-factor model of parenting but recent confirmatory factor analysis supports a 16-item, four-factor model of parenting (Burke, Morawska, Clague & Sanders, 2022). We used the 16-item, four-factor model encompassing parental consistency (4 items), coercive parenting (5 items), positive encouragement (3 items) and quality of parent-child relationship (4 items). Each item is scored on a 4-point scale (0 = Not at all, 1 = A little, 2 = Quite a lot, 3 = Very much). Eight of the 16 items are reverse scored. The items are summed to create each subscale score, with higher scores indicating higher levels of ineffective parenting. Evidence of internal consistency, factor structure and convergent validity (Sanders et al., 2014) and sensitivity to change (e.g., Sumargi, Sofronoff, & Morawska, 2015) have been demonstrated in previous studies. The measure has also been validated across several

cultural contexts (e.g., Guo, Morawska, & Filus, 2015; Mejia, Filus, Calam, Morawska, & Sanders, 2015). In the present study, the Cronbach's alpha coefficients for the PAFAS parenting were 0.66 (inconsistent parenting), 0.77 (coercive parenting), 0.69 (low positive encouragement) and 0.83 (poor parent-child relationship).

2.3 Analysis

Prior to undertaking the main analyses we checked data for missingness. Data could be missing because participants failed to complete some questions or because some items were not designed to be answered by all participants. Cases that were missing more than 30% of expected items were removed. We then used expectation-maximisation in SPSS to impute missing data, thus reducing the potential bias to parameter estimates caused by non-random missing data.

Preliminary analyses were conducted in Stata 16. Our main analyses were conducted in *Mplus* 8.4 (Muthén & Muthén, 1998–2017). The four hypotheses were tested via two structural equation models (SEM). Both models control for parent age, parent education, family structure, household full-time employment status, incidence of financial stress, child gender, and child age. The first model assessed how informal and formal support, parent self-regulation, and parenting practices were associated with presence of child social, emotional and behavioural problems (Model 1). For Model 1 we used maximum likelihood with robust standard errors (MLR) and a logit link. This approach allowed us to estimate both linear regression paths and logistic regression paths simultaneously for estimating our categorical outcome variable. Informal and formal support were modelled as latent variables. To reduce the complexity of the model and ensure model convergence, measures of parent self-regulation and parenting were modelled as observed variables. The conceptual model is presented in Figure 1 (left).

The second model (Model 2) assessed how informal and formal support, parent self-regulation, and parenting practices were related to child problem severity (see Figure 1 [right], for the conceptual model). We used the same structural approach as the first model, limited to those who reported their child has having a social, emotional, or behavioral problem (i.e., a subsample of the sample included in the first model).

When estimating categorical outcomes using maximum likelihood, chi-square test of model fit is not provided (Muthén, Muthén, & Asparouhov, 2015), limiting the available fit statistics to be reported for this model. Although the weighted least squares (WLSMV) estimator is available in *Mplus*, we opted for the MLR estimator due to its capability of logit estimates as opposed to probit which is the only option for WLSMV. As such, we do not provide conventional comparative fit statistics for our first model. However, as conventional

fit statistics are available for our second model, we assessed our model fit for Model 2 using the chi-square test (χ^2), comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardised root mean square residual (SRMR). We follow the cut-off recommendations from Hu and Bentler (1999; CFI > .95, RMSEA < .06, SRMR < .08).

3 Results

3.1 Preliminary Analyses

The two-sample t-test was used to test whether the variables differed depending on the presence of child social, emotional and behavioral problems. The means and standard deviations for each subscale are in Table 2. Results showed significant mean differences for informal support. Parents who reported that their child had difficulties felt less supported in their parenting role from informal supports, scored lower on all four components of parent self-regulation, and showed higher levels of ineffective parenting.

INSERT TABLE 2 ABOUT HERE

3.2 Main Analyses

3.2.1 Informal and Formal Support, Parent self-regulation and Parenting Practices and their Association with Children's Social, Emotional and Behavioral Problems

For Model 1, we report the significant standardised results (direct and indirect effects), R^2s, and available fit statistics (Akaike Information Criterion [AIC], Bayesian Information Criterion [BIC], and loglikelihood) and focus on discussing the standardised coefficients (see Figure 2). Table 3 reports significant indirect effects, where they exist. The direct path estimates of our focal variables are also included in Supplementary Table 1. As a further test, we assessed our model fit with an additional SEM using MLR without the categorical outcome variable. The fit indices indicated good fit to the data ($\chi^2(82) = 548.801$, $p < .001$; RMSEA = 0.046, 95% CI [0.043, 0.050], p-close = 0.949; CFI = 0.962; SRMR = 0.036; Hu & Bentler, 1999). Our model controls for demographic covariates, however, these are not presented to preserve space (results from the full model are available upon request).

INSERT TABLE 3 AND FIGURE 2 ABOUT HERE

Consistent with our predictions, two measures of parenting practices were statistically significantly and directly associated with the presence of child problems (Hypothesis 1). Specifically, coercive parenting and poor parent-child relationship were positively associated with the presence of child problems.

Next, we examined the direct and indirect relationships between parent self-regulation and child problems (Hypothesis 2). In terms of direct associations, personal agency and self-sufficiency were negatively associated with reporting child problems. In addition, personal agency, self-management, and self-efficacy were indirectly linked to reporting child problems, all through coercive parenting. Formal support was directly associated with higher self-sufficiency, but not significantly associated with other aspects of self-regulation (*ps* > .05), partially supporting Hypothesis 3a. In terms of ineffective parenting practices, formal support was only significantly directly negatively associated with low positive encouragement but not with other ineffective parenting practices (*ps* > .05). Contrary to predictions, formal support did not have a significant indirect association with ineffective parenting practices (*ps* > .05). Consistent with our hypothesis (Hypothesis 3b) we found that formal support was positively related with the presence of child problems. However, inconsistent with our hypothesis, formal support did not have a significant indirect association with child problems (*p* > .05).

Consistent with our predictions (Hypothesis 4a), informal support was directly associated with higher personal agency, higher self-sufficiency, higher self-management, higher self-efficacy, and a better quality parent-child relationship. Further, informal support was indirectly negatively associated with all four ineffective parenting practices, through parent self-regulation via self-management (see Table 3).

In support of our predictions (Hypothesis 4b), informal support was negatively related to the presence of child problems. Informal support also had an indirect association with child problems through personal agency. Furthermore, informal support was indirectly associated with child problems through three facets of parent self-regulation and coercive parenting. Specifically, informal support was related to child problems through personal agency and then coercive parenting, self-management and then coercive parenting, and self-efficacy and then coercive parenting.

3.2.2 The Role of Support, Parent self-regulation and Parenting Practices for Children Identified as Having More Severe Social, Emotional and Behavioral Problems

We conducted an SEM to assess how support, parent self-regulation, and ineffective parenting were related to severity of problems using our subsample who reported having a child with a social, emotional, or behavioral problem. Our model chi-square statistic was significant ($\chi^2(68) = 300.651$, $p < .001$), however given this test is sensitive to large sample sizes (Gerbing & Anderson, 1985), we use other fit statistics. The remaining fit indices indicated our model has good fit to the data (RMSEA = 0.041, 90% CI = [0.036, 0.046], p-close =

0.998; CFI = 0.967; SRMR = 0.033). The significant standardised direct and indirect effects, R^2's, and fit statistics (Akaike Information Criterion [AIC], Bayesian Information Criterion [BIC], and loglikelihood) are shown in our final model (see Figure 3) and the direct effects of all focal variables can be found in Supplementary Table 2.

INSERT FIGURE 3 ABOUT HERE

Partially supporting our hypothesis (Hypothesis 1) only one parenting practice was significantly associated with problem severity with low positive encouragement associated with lower problem severity. As predicted (Hypothesis 2), personal agency and self-efficacy were directly linked to lower problem severity. Self-management was also indirectly associated with problem severity through low positive encouragement.

As predicted (Hypothesis 3a), formal support was associated with higher personal agency, self-sufficiency, self-management, and self-efficacy. Formal support was only directly associated with one facet of ineffective parenting, namely, decreased low positive encouragement. However, formal support was indirectly associated with all four measures of ineffective parenting practices through all aspects of parent self-regulation except for self-sufficiency (see Table 4).

INSERT TABLE 4 ABOUT HERE

Formal support was positively associated with child problem severity, supporting our prediction (Hypothesis 3b). Similarly, formal support was indirectly associated with child problem severity through personal agency. Furthermore, as hypothesised, formal support was indirectly associated with problem severity through self-management and low positive encouragement.

Contrary to our predictions (Hypothesis 4a), we did not find direct associations between informal support and parent self-regulation. There was one direct association with informal support negatively related to poor parent-child relationship. We also found no significant indirect associations between informal support and ineffective parenting practices (*ps* > .05). Consistent with our predictions (Hypothesis 4b), informal support was directly associated with lower problem severity. However, inconsistent with our hypothesis (Hypothesis 4b), informal support was not indirectly associated with problem severity (*ps* > .05).

4 Discussion

Parenting is critical for the wellbeing of children (Sanders & Turner, 2018). Children are more likely to thrive if they are supported by parents who have the economic, social and mental resources to provide perceptive and responsive parenting characterised by warmth, acceptance, encouragement, clear boundaries, routines, effective problem solving and supervision (Baker et al., 2017; Marsh et al., 2020; Odgers et al., 2012;

Wille et al., 2008). In this paper we investigated the associations between formal and informal social support, parent self-regulation and parenting practices and child social, emotional and behavioral problems. We examined separate models for the presence and severity of child social, emotional and behavioral problems. Our data are cross-sectional and no conclusions about causality can be drawn.

Overall, our results provide support for the broad hypotheses that formal and informal support are associated with child problems and severity of problems via their association with parent self-regulation and parenting practices. Formal and informal support for parents were also directly related to child problems and severity of problems. There were several important differences between the models that have implications for practice and policies designed to support families.

It is worth noting that just over half of parents in the sample perceived their child to have social, emotional, behavioral problems or a combination of these difficulties, with three quarters of these parents indicating these as being moderate to severe in nature. Further, parents who reported child difficulties were more likely to experience greater social disadvantage (e.g., lower education, more financial difficulties) and were more likely to be parenting solo. These factors have been associated with a higher likelihood for negative child outcomes (Moore et al., 2015; Pillas et al., 2014) and are also likely to influence the types of supports (formal or informal) that are needed and the extent to which supports are likely to be available and effective (Ceballo & McLoyd, 2002; Dahl et al., 2010; Maguire-Jack & Klein, 2015; Turney & Harknett, 2010).

Our results partially supported the hypothesis that parenting practices are associated with child problems. Coercive parenting and poor parent-child relationships were associated with a greater likelihood of reporting child problems. Interestingly, the other aspects of ineffective parenting were not associated with child problems. Parents who reported that their child had more severe social, emotional and behavioral problems also reported that they were giving more encouragement. A focus on praise and encouragement is a core strategy in evidence-based parenting interventions (Barlow et al., 2016). As such, it may be that parents of children experiencing more severe problems were using more encouragement as an attempt to address their child's difficulties following guidance from their formal supports. However, the direction of these relationships requires further investigation using a causal methodology.

Our results provide partial support for the hypothesis that parent self-regulation is directly associated with the likelihood of child social, emotional and behavioral problems and indirectly with child problems via ineffective parenting practices. Personal agency was associated with both problems and severity, self-

sufficiency was associated with problems, while self-efficacy was associated with severity. In addition, the relationship between parent self-regulation and child outcomes was mediated via parenting practices.

Greater formal support was associated with higher perceptions of self-sufficiency and with increases in use of positive encouragement for child problems and the association between formal support and self-regulation was fully supported for child severity with significant associations with all four aspects.

Formal support was negatively associated with ineffective parenting for the low positive encouragement subscale with greater formal support associated with greater praise and encouragement. That other aspects of parenting were not significantly related to formal support was surprising, as these too are common targets of evidence-based programs. Perhaps, such strategies are not as uniformly implemented in programs offered to parents and are also perceived as more complex to implement, resulting in greater variability in parent implementation.

Parents reported higher self-regulation when they perceived higher support from their family, friends, and neighbours, but not for parents experiencing difficulties with their children. Only the quality of the parent-child relationship was associated with informal support. The parent-child relationship could be seen as the critical context upon which parenting practices are implemented with a higher quality relationship providing a context in which children are more likely to respond positively to effective parenting and vice versa. Thus, it is possible that effects of the other measured parenting practices may have been obscured by the overlapping effect of the parent-child relationship. Research exploring the ways in which specific parenting practices converge and diverge to influence the parent-child relationship and child outcomes is recommended.

Informal support is associated with both the presence and severity of child problems. Most importantly we expected that informal support would be indirectly associated with child problems via parent self-regulation and parenting practices. Our results did not support this pathway for parents' perceptions of child problem severity but there was partial mediation for child problems. Taken together, our finding suggest that parents perceive family, friends and neighbours as important sources of support, however, when issues with their children increase in severity, parents are more likely to rely on more formal sources for building or maintaining their capacity to self-regulate and to reduce ineffective parenting.

Overall, our results confirm the importance of both formal and informal social support for child social, emotional or behavioral problems. Both supports were directly related to child problems and the severity of those problems. When informal supports for parenting were higher, parents also reported fewer child

problems. In contrast, when parents reported higher support from formal sources, they were also more likely to be experiencing a greater severity of issues with their child. The reasons for these differences requires further consideration. Parents whose children have social, emotional or behavioral problems could be more likely to seek formal support to address these problems and are thus more likely to report higher levels of formal support than those whose children are not experiencing problems. Parents may also feel more willing to draw on informal support when things are going well with their children and less inclined to burden others as challenges increase. In addition, the protective effects of informal support for positive parenting may be lower when raising children in the context of social disadvantage (Ceballo & McLoyd, 2002; Turney & Harknett, 2010) as was the case for parents in this study who reported experiencing higher severity of issues with their children.

4.1 Limitations

While outcomes from this paper offer some useful insights into the ways in which sources of support influence the parenting role and outcomes for children there are a number of limitations that should be taken into consideration when interpreting the findings. First, the data were collected as part of a cross-sectional survey recruited primarily as a convenience sample. Thus, our findings are correlational, describing associations between variables rather than causal relationships. Further work using a longitudinal design is needed to assess causal directionality of relationships. We also note that as a single point in time survey, those reporting having received professional support may comprise a mix of people currently receiving support and those who have received this support in the past. The quality, specificity and duration of the support provided may also vary across respondents. Second our data are from a convenience sample and are not representative thereby reducing the generalisability of the results. Third, similar to much of the parenting literature, our respondents were predominantly mothers. Much more work is needed to engage fathers in parenting research and to understand the types of supports they need and how those supports influence their parenting and their children's wellbeing.

5 Conclusion

Overall, our study highlights the importance of social support for both parents and children for improving child social, emotional and behavioral outcomes and points to the importance of strong institutions (e.g., medical, psychological), informal communities and social networks (friends, neighbours, families) to ensure children thrive. These results are particularly note-worthy given recent experience of greater social

isolation, lockdowns and reduced face-to-face time with friends, family and neighbours due to the COVID-19 pandemic. Many of our informal social support systems were interrupted which may explain high levels of demand for formal support services such as clinicians, mental health providers and other medical personnel. Further, how some formal supports are offered has changed with a shift from face-to-face health delivery to greater use of telehealth. While our data were collected prior to the pandemic and we cannot assess how it has impacted parenting or child outcomes, our results highlight the importance of social support for parent self-regulation, effective parenting and for fostering better parent-child relationships and child outcomes.

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Table 1

Descriptive Statistics for Control Variables Included in the Analysis (N = 2,654)

Characteristic	Combined (Model 1) (N=2,654)		No Child SEB Problems (N=1,176)		Yes Child SEB Problems (Model 2) (N=1,478)	
Age of Parent - Mean (SD)**	36.82	(6.83)	35.9	(6.40)	37.44	(7.08)
	N	%	N	%	N	%
Parent with University Degree or Higher**	1,321	49.77	650	55.89	665	44.99
Couple Family (Original/Step/Blended)**	2,200	82.89	1,030	88.56	1,161	78.55
Household With Full-Time Employed**	1,995	75.17	947	81.43	1,038	70.23
No Financial Stress**	1,755	66.13	885	76.10	862	58.32
Male Target Child**	1,433	53.99	570	49.01	855	57.85
Age Of Target Child - Mean (SD)**	5.40	(2.58)	4.64	(2.49)	6.00	(2.49)

** There was a significant difference in this characteristic between no child problems group and yes child problems group.

Table 2

Mean Comparison of Measures for No Child SEB Problems Group and Yes Child SEB Problems Group (N = 2,654)

	Combined (Model 1) (N=2,654)		No Child SEB Problems (N=1,176)		Yes Child SEB Problems (Model 2) (N=1,478)		Two-sample t test
Variables	Mean	SD*	Mean	SD	Mean	SD	
Informal Support	2.70	0.93	2.85	0.93	2.57	0.91	t(2636) = 7.735, p < .001
Formal Support	2.59	0.84	2.61	0.86	2.58	0.83	t(2636) = 1.123, p = .262
Personal Agency	15.78	2.59	16.55	2.33	15.19	2.63	t(2501) = 13.468, p < .001
Self-Sufficiency	15.54	2.33	16.17	2.04	15.05	2.43	t(2501) = 12.225, p < .001
Self-Management	15.26	2.54	15.92	2.20	14.74	2.67	t(2501) = 11.826, p < .001
Self-Efficacy	15.61	2.65	16.30	2.25	15.08	2.81	t(2501) = 1.752, p < .001
Inconsistent Parenting	3.08	2.01	2.83	1.88	3.28	2.08	t(2625) = -5.686, p < .001
Coercive Parenting	3.98	2.38	3.38	2.17	4.45	2.44	t(2625) = -11.735, p < .001
Low Positive Encouragement	2.29	1.63	2.23	1.62	2.33	1.64	t(2625) = -1.699, p = .089
Poor Parent-Child Relationship	1.08	1.66	0.67	1.30	1.41	1.84	t(2625) = -11.540, p < .001

*SD = Standard Deviation

Table 3

Significant Indirect Effects of Informal Support on Child Problems, Through Parent self-regulation and Ineffective Parenting (Model 1; N = 2,654*).*

Significant Indirect Effects	*B*	*β*	*SE*	95% CI Lower	95% CI Upper
Informal Support and Child SEB Problems					
Informal Support → Personal Agency → Child SEB [A]	–0.070**	–0.025	0.008	–0.041	–0.009
Informal Support → Personal Agency → Coercive Parenting → Child SEB [A]	–0.013**	–0.005	0.002	–0.008	–0.001
Informal Support → Self-Management → Coercive Parenting → Child SEB [A]	–0.012**	–0.004	0.002	–0.008	–0.001
Informal Support → Self-Efficacy → Coercive Parenting → Child SEB [A]	–0.011*	–0.004	0.002	–0.007	–0.001
Informal Support and Parenting					
Informal Support → Personal Agency → Inconsistent Parenting [B]	–0.200***	–0.077	0.021	–0.119	–0.035
Informal Support → Self–Management → Inconsistent Parenting [B]	–0.052**	–0.020	0.008	–0.035	–0.005
Informal Support → Personal Agency → Coercive Parenting [B]	–0.120**	–0.039	0.012	–0.062	–0.016
Informal Support → Self-Management → Coercive Parenting [B]	–0.110**	–0.036	0.012	–0.058	–0.013
Informal Support → Self-Efficacy → Coercive Parenting [B]	–0.100**	–0.032	0.010	–0.053	–0.012
Informal Support → Self-Management → Low Positive Encouragement [B]	–0.053**	–0.025	0.010	–0.044	–0.006
Informal Support → Personal Agency → Poor Parent-Child Relationship [B]	–0.066**	–0.031	0.009	–0.049	–0.013
Informal Support → Self-Management → Poor Parent-Child Relationship [B]	–0.093**	–0.044	0.014	–0.070	–0.017
Informal Support → Self-Efficacy → Poor Parent-Child Relationship [B]	–0.060**	–0.028	0.010	–0.047	–0.009
Parent self-regulation and Child SEB Problems					
Personal Agency → Coercive Parenting → Child SEB [A]	–0.022***	–0.027	0.005	–0.033	–0.012
Self-Management → Coercive Parenting → Child SEB [A]	–0.022***	–0.026	0.006	–0.034	–0.011
Self-Efficacy → Coercive Parenting → Child SEB [A]	–0.017**	–0.020	0.005	–0.027	–0.006

Note. Only significant decomposed indirect effects are reported to preserve space.

*** $p < .001$, ** $p < .01$, * $p < .05$

[a] Unstandardised coefficients are logistic regression coefficients

[b] Unstandardised coefficients are linear regression coefficients

Table 4

Significant Indirect Effects of Informal Support on Child Problem Severity, Through Parent self-regulation and Ineffective Parenting (Model 2; N = 1,478*).*

Significant Indirect Effects	*B*	*β*	*SE*	95% CI Lower	95% CI Upper
Formal Support and Child Problem Severity					
Formal Support → Personal Agency → Child Problem Severity	–0.087*	–0.031	0.016	–0.062	–0.001
Formal Support → Self-Management → Low Positive Encouragement → Child Problem Severity	0.013*	0.005	0.002	0.001	0.009
Formal Support and Parenting					
Formal Support → Personal Agency → Inconsistent Parenting	–0.257*	–0.065	0.030	–0.123	–0.006
Formal Support → Self-Management → Inconsistent Parenting	–0.154**	–0.039	0.014	–0.067	–0.010
Formal Support → Personal Agency → Coercive Parenting	–0.154*	–0.033	0.016	–0.064	–0.002
Formal Support → Self-Management → Coercive Parenting	–0.263**	–0.056	0.018	–0.091	–0.022
Formal Support → Self-Efficacy → Coercive Parenting	–0.176*	–0.038	0.017	–0.071	–0.005
Formal Support → Self-Management → Low Positive Encouragement	–0.138**	–0.044	0.016	–0.075	–0.013
Formal Support → Personal Agency → Poor Parent-Child Relationship	–0.107*	–0.031	0.015	–0.059	–0.002
Formal Support → Self-Management → Poor Parent-Child Relationship	–0.263**	–0.075	0.022	–0.118	–0.033
Formal Support → Self-Efficacy → Poor Parent-Child Relationship	–0.116*	–0.033	0.013	–0.059	–0.007
Parent self-regulation and Child Problem Severity					
Self-Management → Low Positive Encouragement → Child Problem Severity	0.009**	0.017	0.004	0.002	0.016

Note. Only significant decomposed indirect effects are reported to preserve space.

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

Figure 1

Conceptual Models of Model 1 (left) and Model 2 (right)

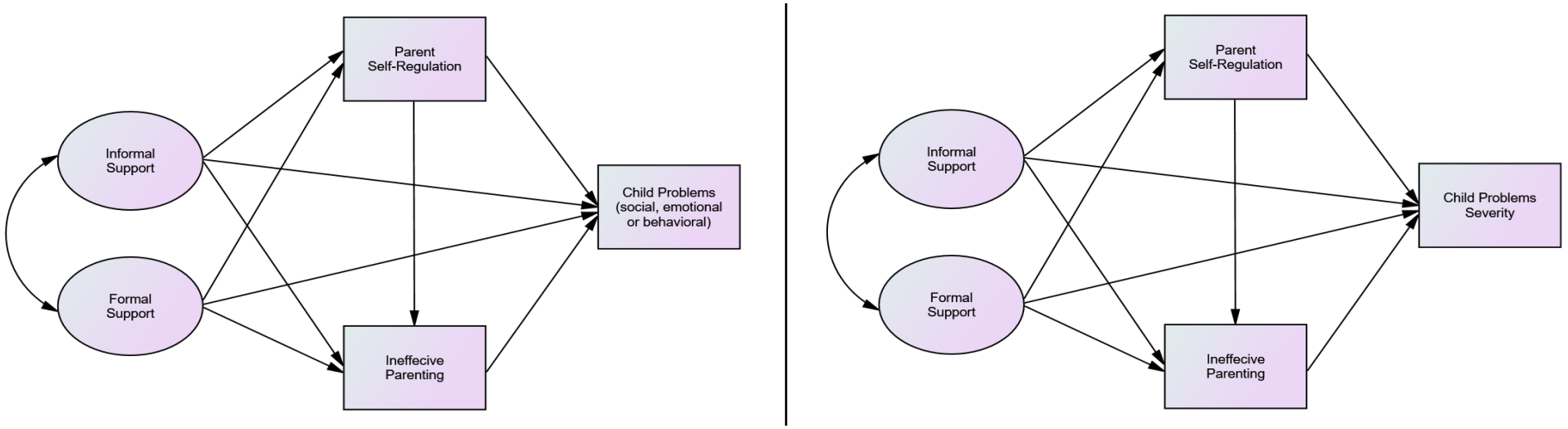
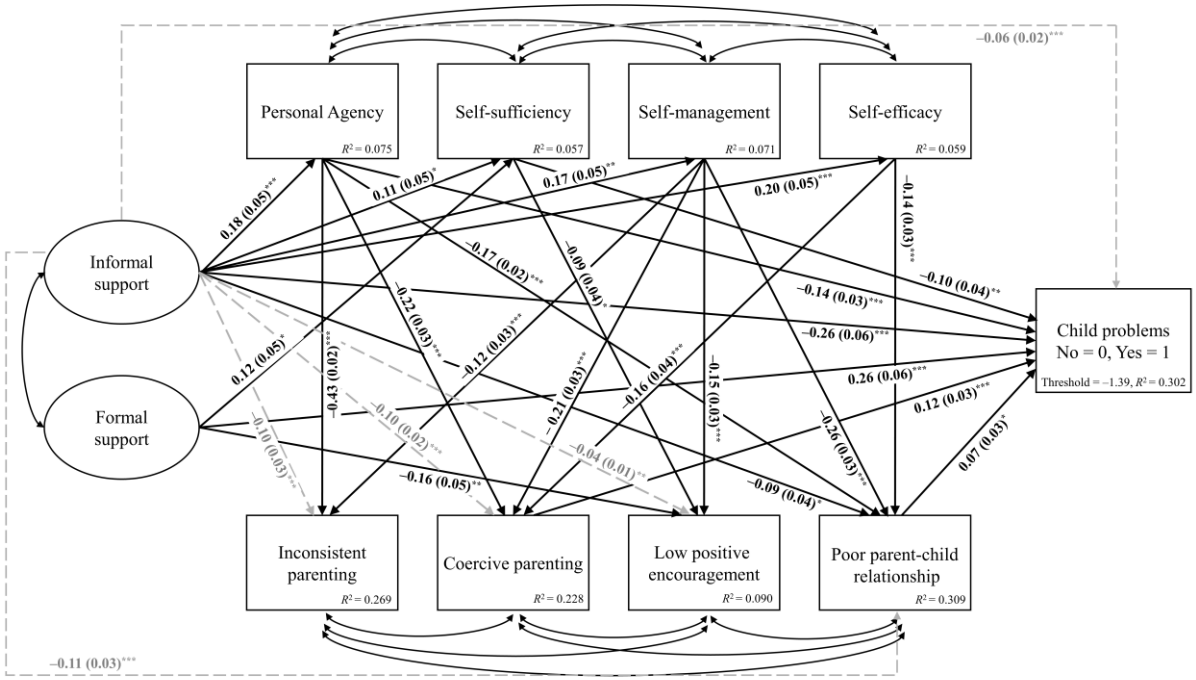


Figure 2

Model 1: Structural Equation Model Assessing Informal and Formal Support, Parent self-regulation, Ineffective Parenting, and Child SEB Problems



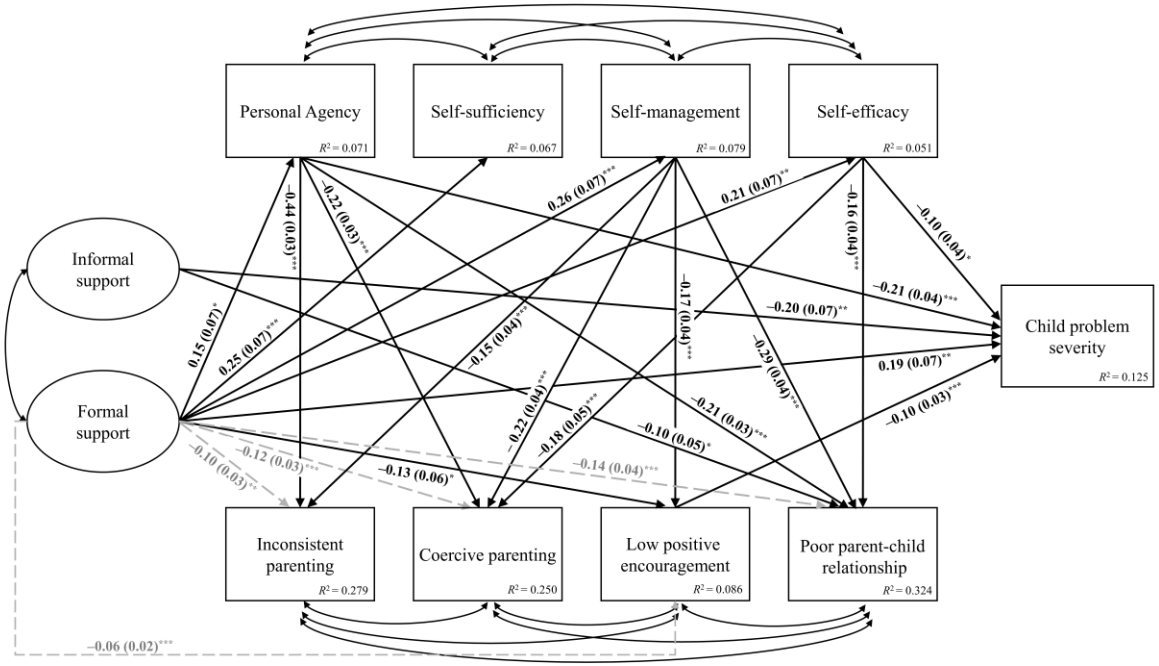
Model 1; *N* = 2,654; AIC = 132208.511; BIC = 133108.735; loglikelihood = 65951.255.

Note: Significant standardised estimates are presented with associated standard errors. To preserve space, indicators for informal and formal support, values for covariances between variables, non-significant paths, and control variables (parent education, couple family, household full-time employment, no financial stress, parent age, child age, and child gender) are not presented. Dark lines indicate significant direct paths and grey dashed lines indicate significant indirect paths.

*** $p < .001$; ** $p < .01$; * $p < .05$

Figure 3

Model 2: Structural equation model assessing informal and formal support, parent self-regulation, ineffective parenting, and child problem severity



Model 2 fit statistics: n = 1,478; χ2(68) = 300.651, p < .001; RMSEA = 0.041, 90% CI = [0.036, 0.046], p-close = 0.998; CFI = 0.967; SRMR = 0.033)

Note: Significant standardised estimates are presented with associated standard errors. To preserve space, indicators for informal and formal support, values for covariances between variables, non-significant paths, and control variables (parent education, couple family, household full-time employment, no financial stress, parent age, child age, and child gender) are not presented. Dark lines indicate significant direct paths and grey dashed lines indicate significant indirect paths.

*** $p < .001$; ** $p < .01$; * $p < .05$

Supplementary Table 1

Structural Equation Model of Informal and Formal Support, Parent self-regulation, Ineffective Parenting, and Child Problems (Model 1; N = 2,654)

Outcome	Predictor	B (SE)	β	95% CI Lower	95% CI Upper
Personal Agency[a]	Informal Support	0.598 (0.165)***	0.180	0.083	0.276
	Formal Support	0.015 (0.244)	0.003	–0.099	0.106
Self-Sufficiency[a]	Informal Support	0.350 (0.147)*	0.117	0.021	0.213
	Formal Support	0.461 (0.216)*	0.110	0.010	0.210
Self-Management[a]	Informal Support	0.555 (0.165)**	0.170	0.075	0.266
	Formal Support	0.390 (0.243)	0.085	–0.018	0.189
Self-Efficacy[a]	Informal Support	0.676 (0.176)***	0.199	0.099	0.299
	Formal Support	0.136 (0.253)	0.028	–0.075	0.132
Inconsistent Parenting[a]	Informal Support	–0.139 (0.112)	–0.054	–0.138	0.031
	Formal Support	0.088 (0.162)	0.024	–0.063	0.112
	Personal Agency	–0.334 (0.020)***	–0.430	–0.477	–0.382
	Self-Sufficiency	–0.023 (0.027)	–0.027	–0.087	0.034
	Self-Management	–0.093 (0.024)***	–0.117	–0.176	–0.058
	Self-Efficacy	0.015 (0.025)	0.020	–0.044	0.084
Coercive Parenting[a]	Informal Support	0.010 (0.137)	0.003	–0.084	0.090
	Formal Support	0.251 (0.203)	0.058	–0.034	0.150
	Personal Agency	–0.200 (0.026)***	–0.216	–0.270	–0.162
	Self-Sufficiency	0.036 (0.037)	0.034	–0.035	0.104
	Self-Management	–0.199 (0.029)***	–0.210	–0.270	–0.150
	Self-Efficacy	–0.148 (0.034)***	–0.163	–0.236	–0.090
Low Positive Encouragement[a]	Informal Support	0.165 (0.101)	0.078	–0.015	0.172
	Formal Support	–0.465 (0.148)**	–0.158	–0.254	–0.061
	Personal Agency	–0.028 (0.016)	–0.044	–0.095	0.007
	Self-Sufficiency	–0.060 (0.025)*	–0.085	–0.154	–0.017

	Self-Management	–0.095 (0.022)***	–0.147	–0.213	–0.082
	Self-Efficacy	0.019 (0.022)	0.031	–0.038	0.100
Poor Parent-Child Relationship[a]	Informal Support	–0.193 (0.087)*	–0.090	–0.169	–0.011
	Formal Support	0.122 (0.127)	0.041	–0.042	0.124
	Personal Agency	–0.110 (0.015)***	–0.171	–0.215	–0.127
	Self-Sufficiency	–0.037 (0.022)	–0.051	–0.113	0.010
	Self-Management	–0.168 (0.019)***	–0.256	–0.313	–0.199
	Self-Efficacy	–0.089 (0.020)***	–0.141	–0.203	–0.080
Child SEB Problems[b]	Informal Support	–0.737 (0.174)***	–0.263	–0.378	–0.148
	Formal Support	1.002 (0.247)***	0.255	0.138	0.373
	Personal Agency	–0.116 (0.026)***	–0.138	–0.199	–0.078
	Self-Sufficiency	–0.094 (0.036)**	–0.100	–0.175	–0.026
	Self-Management	–0.041 (0.032)	–0.048	–0.121	0.025
	Self-Efficacy	0.009 (0.032)	0.010	–0.066	0.087
	Inconsistent Parenting	–0.047 (0.027)	–0.043	–0.092	0.006
	Coercive Parenting	0.112 (0.024)***	0.123	0.072	0.175
	Low Positive Encouragement	–0.030 (0.032)	–0.022	–0.070	0.025
	Poor Parent-Child Relationship	0.088 (0.042)*	0.067	0.005	0.129

[a] Linear regression coefficients

[b] Logistic regression coefficients.

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Supplementary Table 2

Structural Equation Model of Informal and Formal Support, Parent self-regulation, Ineffective Parenting, and Child Problem Severity (N = 1,478)

Outcome	Predictor	B (SE)	β	95% CI Lower	95% CI Upper
Personal Agency	Informal Support	0.129 (0.206)	0.038	–0.082	0.159
	Formal Support	0.739 (0.337)*	0.148	0.017	0.279
Self-Sufficiency	Informal Support	–0.014 (0.193)	–0.005	–0.127	0.118
	Formal Support	1.138 (0.315)***	0.246	0.117	0.375
Self-Management	Informal Support	0.014 (0.219)	0.004	–0.122	0.130
	Formal Support	1.334 (0.360)***	0.263	0.130	0.395
Self-Efficacy	Informal Support	0.013 (0.053)	0.004	–0.126	0.133
	Formal Support	1.143 (0.378)**	0.214	0.080	0.348
Inconsistent Parenting	Informal Support	0.023 (0.145)	0.009	–0.098	0.115
	Formal Support	–0.135 (0.230)	–0.034	–0.147	0.079
	Personal Agency	–0.348 (0.027)***	–0.438	–0.500	–0.376
	Self-Sufficiency	–0.005 (0.034)	–0.006	–0.083	0.071
	Self-Management	–0.116 (0.031)***	–0.148	–0.227	–0.069
	Self-Efficacy	0.026 (0.031)	0.035	–0.048	0.118
Coercive Parenting	Informal Support	0.084 (0.172)	0.027	–0.081	0.135
	Formal Support	0.122 (0.278)	0.026	–0.091	0.143
	Personal Agency	–0.208 (0.031)***	–0.223	–0.287	–0.159
	Self-Sufficiency	0.033 (0.046)	0.033	–0.056	0.122
	Self-Management	–0.197 (0.036)***	–0.215	–0.291	–0.139
	Self-Efficacy	–0.154 (0.042)***	–0.177	–0.272	–0.083
Low Positive Encouragement	Informal Support	0.158 (0.127)	0.075	–0.043	0.193
	Formal Support	–0.398 (0.204)*	–0.127	–0.253	–0.001
	Personal Agency	–0.032 (0.021)	–0.050	–0.115	0.014
	Self-Sufficiency	–0.031 (0.031)	–0.045	–0.135	0.044
	Self-Management	–0.104 (0.027)***	–0.168	–0.254	–0.082
	Self-Efficacy	0.016 (0.027)	0.027	–0.063	0.117
Poor Parent-Child Relationship	Informal Support	–0.232 (0.116)*	–0.099	–0.194	0.003
	Formal Support	0.158 (0.183)	0.045	–0.058	0.148
Outcome	Predictor	B (SE)	β	95% CI Lower	95% CI Upper
	Personal Agency	–0.145 (0.021)***	–0.207	–0.266	–0.149
	Self-Sufficiency	–0.005 (0.030)	–0.007	–0.084	0.071

	Self-Management	–0.197 (0.026)***	–0.286	–0.358	–0.214
	Self-Efficacy	–0.102 (0.025)***	–0.155	–0.230	–0.080
Child Problem Severity	Informal Support	–0.376 (0.125)**	–0.204	–0.334	–0.074
	Formal Support	0.528 (0.199)**	0.192	0.051	0.333
	Personal Agency	–0.117 (0.019)***	–0.213	–0.281	–0.144
	Self-Sufficiency	–0.016 (0.024)	–0.027	–0.107	0.053
	Self-Management	0.028 (0.022)	0.052	–0.029	0.133
	Self-Efficacy	–0.050 (0.022)*	–0.098	–0.182	–0.013
	Inconsistent Parenting	–0.014 (0.021)	–0.020	–0.079	0.039
	Coercive Parenting	0.016 (0.020)	0.028	–0.038	0.093
	Low Positive Encouragement	–0.090 (0.026)***	–0.103	–0.161	–0.045
	Poor Parent-Child Relationship	0.010 (0.027)	0.013	–0.053	0.080

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$