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Social Support, Family Functioning and Parenting Competence in Adolescent Parents

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Abstract

Depression is known to mediate the association between low social support and parenting competence in adult mothers, but this relationship is rarely assessed in adolescent mothers and fathers. The primary aim of this study was to identify the association between social support, family functioning and social capital on parenting competence, including self-efficacy and satisfaction in adolescent mothers and their partners. Secondary aims included identifying potential partner effects (e.g. whether a partner's social support influenced the respondent's parenting efficacy). Data was obtained from a subset of participants from a longitudinal study of pregnant adolescent females and their partners. Couples completed individual structured interviews via audio computer-assisted self-interview during pregnancy and at 6 months postpartum. To measure the influence of support on parenting outcomes, multi-level modeling was used to assess the Actor–Partner Interdependence model, which examines responses from both members of a dyad in a single analysis. Greater social support was associated with increased parenting self-efficacy ($B = 0.062, p = 0.006$) and parenting satisfaction ($B = 0.111, p < 0.001$). Higher family functioning was also associated with greater parenting satisfaction ($B = 0.05, p = 0.035$). Greater partner family functioning was associated with higher parenting satisfaction ($B = 0.047, p = 0.026$). This study found the importance of a strong support structure during pregnancy on perceived parenting competence in the early postpartum period for young mothers and fathers. Both social support and family functioning during pregnancy were associated with a greater sense of parenting competence, and these associations were mediated by parental depression. The results of this study underscore the importance of providing social support for young expectant fathers as well as mothers.

Keywords

Parenting competence; Adolescents; Social support; Partner effects

Introduction

Adolescent parents face a number of challenges, such as transitioning to a new role and new responsibilities as a mother or father. Parenting competence includes the domains of parenting self-efficacy and satisfaction [1]. High levels of parenting competence can lead to beneficial health outcomes for children and healthier child-care practices [2, 3]. Factors associated with coherence during parenthood are well-documented in older parents but not in adolescent parents [4]. Social support, including the positive support of family and friends, increases parenting competence by providing encouragement and resources during the period of role-transition [5]. Research shows that adolescent mothers experience lower levels of social support from friends than their non-pregnant peers [6]. Adolescent parents may be at particular risk for experiencing low parenting competence due to lower levels of social support.

Pathways involving social support, parenting competence and depression have been established [7]. Both adolescent mothers [8, 9] and fathers [10] are susceptible to postpartum depression due to low social support or social isolation. Evidence has also demonstrated (although among older adults) that maternal [11, 12] and paternal [13] depression or psychological distress after the child's birth is associated with low parenting competence and low parenting self-efficacy.

Parenting efficacy is associated with positive child socio-emotional adjustment, as efficacy can affect different aspects of parenting, such as interactive behavior [3] and discipline style [14]. Children of parents with low parenting efficacy may therefore be at risk for adverse psychosocial outcomes.

Adolescent parents can draw support from a number of sources, including parents, partners, relatives and friends [15]. Social capital, defined as components of social organization such as networks and norms that are advantageous for coordination and cooperation [16], could also add to their total support. Higher family functioning and social capital are associated with positive parenting experiences [17, 18]. As adolescent parents are more likely to remain with their own mothers during pregnancy and after the birth of their child [19], positive family functioning and neighborhood social capital could be important resources that could improve their parenting competence. Despite evidence of the influence of support on adolescent health, few studies have comprehensively assessed the impact of the total amount of support that adolescents receive.

Risk factors for low parenting competence have been explored for adult mothers, but not thoroughly for adolescent mothers [11, 20]. No studies have comprehensively assessed the effect of social support, family functioning and social capital on parenting competence in adolescent mothers. Even less focus is given to parenting competence in young fathers. Males, however, are less likely to feel parenting self-efficacy and report more parenting-

related failures than females [21, 22]. Furthermore, the effect of a partner's social support on parenting competence has not been studied for young parents, though fathers have been shown to influence the depression status of adolescent mothers [23].

In this study, our aim was to identify the relationship between social support, family functioning and social capital on parenting competence, including self-efficacy and satisfaction. Further, we assessed the mediating effect of depression. Additional aims included identifying potential partner effects, (e.g. whether a partner's social support influenced the respondent's parenting efficacy) as well as determining if any of the respondent and partner effects were modified by the gender of the respondent.

Methods

Procedure

The data were obtained from participants from a longitudinal study of pregnant adolescent females and their partners. The purpose of this prospective longitudinal study was to look at relationship changes in young couples transitioning from pregnancy to parenthood. This was a secondary data analysis in line with the primary purpose of the study. Participants were recruited between July 2007 and February 2011 from obstetrics and gynecology clinics and an ultrasound clinic in four hospitals in Connecticut. Interested participants were screened by research staff and if they were eligible, the research staff explained the study and answered any questions. If only the mother was present during screening, she was provided with materials to give to the father, and research staff requested permission to contact the father regarding participation in the study.

Inclusion criteria stipulated that: (a) pregnant or partner is pregnant in the second or third trimester at the time of baseline interview; (b) women are age 14–21 and men are age 14 or older at the time of the baseline interview; (c) both participants report being in a romantic relationship with each other; (d) both report being the biological parents of the unborn baby; (e) both agree to participate in the study and (f) both are able to speak Spanish or English. Because this was a longitudinal study, we used an initial run-in period as part of the eligibility criteria where participants were deemed ineligible if they could not be re-contacted after screening and before their estimated due date [24]. 72.2 % of eligible couples enrolled in the study. Those that enrolled in the study did not differ from those that refused except that participants were more likely to be two weeks further along in their pregnancy than non-participants ($p < 0.05$).

Research staff obtained informed consent at the baseline appointment. Couples completed individual structured interviews via audio computer-assisted self-interview (ACASI). Participation was voluntary and confidential, and did not influence the provision of health care or social services. All procedures were approved by the Yale University Human Investigation Committee and by Institutional Review Boards at study clinics.

Demographic variables were assessed at baseline. All predictors were assessed during the second or third trimester of pregnancy or the partner's pregnancy, and all outcomes were assessed at 6 months postpartum. Depression, which was examined as a mediating variable,

was assessed at 6 months postpartum. Analyses were restricted to couples that had completed the interview at 6 months postpartum.

Measures

Predictors—All predictors were measured during the second or third trimester of pregnancy.

Social support was assessed using a 9-item scale adapted from the 20-item Medical Outcomes Study Social Support Survey (MOSS Survey) [25]. The positive social interaction subscale and several other items were eliminated for brevity. In addition, the response scale was changed to range from 0 to 4 instead of 1 to 5. Participants were asked how often someone was available to help them if they were confined to a bed, to talk to about their problems, to give them advice, and to show them love and affection. Response choices were: 0 = “None of the time”, 1 = “A Little of the Time”, 2 = “Some of the Time”, 3 = “Most of the Time”, and 4 = “All of the Time”. Responses were summed to form a total score with a possible range of 0 to 36. Reliability of the social support scale was 0.82 for females and 0.80 for males.

Family functioning was assessed using a 12-item scale adapted from the 40-item Family Functioning Scale (FFS) [26]. Items were eliminated from the original scale for brevity. The scale measured general dimensions of family functioning with items such as “My family accepts me as I am” and “People in my family listen when I speak”. Response choices were 1 = “Never”, 2 = “Almost Never”, 3 = “Rarely”, 4 = “Sometimes”, 5 = “Frequently”, 6 = “Almost Always”, 7 = “Always”. Responses were summed to generate a total family functioning score with a possible range of 12–84. Higher scores indicate a greater degree of family functioning. Reliability was 0.84 for females and 0.77 for males.

Social capital was assessed using a 7-item scale adapted from the Neighborhood Cohesion Index [27]. Participants were asked how much they agreed or disagreed with statements about their relationships with neighbors and the sense of community in their neighborhood. Responses choices used a 5-point scale and ranging from 1 = “Strongly disagree” to 5 = “Strongly agree”. Responses were summed to generate a total social capital score with a possible range of 7–35. Higher scores indicated a greater amount of social capital. Reliability was 0.89 for females and 0.93 for males.

Outcomes—Parenting sense of competence was assessed at 6 months postpartum using an adapted version of the 16-item Parenting Sense of Competence Scale [1]. The wording of the items was altered to make them more appropriate for the study population. Both the efficacy and the satisfaction subscales were used. The parenting efficacy subscale contained 7 items and the satisfaction subscale contained 9 items. The efficacy subscale assessed the participants' sense of capability of a parent with items such as “You understand how to take care of a baby”. The satisfaction subscale assessed whether the participants enjoy being a parent and feel confident in their parenting role with items such as “You like being a mother/father”. The response choices used a 5-point Likert scale ranging from 1 = “Strongly disagree” to 5 = “Strongly agree”. The responses to items from the efficacy and the satisfaction subscales were summed separately to obtain a total score for each subscale. The

possible range of scores for the efficacy subscale was 7 to 35. The possible range of scores for the satisfaction subscale was 9 to 45. Reliability of parenting efficacy was 0.60 for females and 0.65 for males. Reliability of parenting satisfaction was 0.72 for females and 0.68 for males.

Mediators—Depression was assessed at 6 months postpartum using a 15-item scale adapted from the 20-item Center of Epidemiological Studies-Depression Scale (CES-D) [28]. Five somatic items often observed during pregnancy were removed as inclusion of these items may inflate CES-D scores in pregnant women we wanted to keep the scale parallel across the three time points of the study [29]. The same adapted version of the scale was given during pregnancy and at 6 months postpartum to facilitate comparisons across time points. Participants were asked how often they felt or exhibited the behavior of major components of depression in the past week. Response choices were 0 = “Less than 1 day”, 1 = “1–2 days”, 2 = “3–4 days” and 3 = “5–7 days”. Responses were summed to generate a total depression score with a possible range of 0–45. Reliability was 0.88 for females and 0.83 for males.

Data Analysis

All analyses were performed using SPSS v.18.0. Frequencies and means were conducted to describe the sample. To assess differences between male and female partners on demographics and key study variables, we conducted a series of paired t-tests for continuous variables and McNemar tests for categorical variables. To assess the influence of social support on parenting outcomes, we used multi-level modeling to assess the Actor–Partner Independence model. The Actor–Partner Independence model incorporates responses from both members of a dyad into a single analysis using multilevel modeling [30]. Multilevel modeling treats members of a dyad as nested scores within the same group. A detailed description on how to conduct the Actor–Partner Independence model analyses using multilevel modeling programs has been previously outlined [30] and served as the guide for our analysis plan. Actor effects refer to whether a person's score on predictor variables influences the person's own outcome (e.g., a woman's social support relates to her own report of parenting competence). Partner effects refer to whether a partner's score on the predictor variable influences the person's outcome (e.g., the male partner's social support influences the woman's parenting competence).

To assess whether any of the actor and partner relationships differed between men and women, a set of interactions between gender and all predictor variables were entered one at a time in the final model [30, 31]. Significant interactions were added to the final model. In order to increase the interpretability of the regression coefficients and because interaction terms were modeled, all variables were centered using the mean from the combined data, which is the recommended approach when centering variables in the Actor–Partner Independence model [30]. The actor and partner effects presented in the model are unstandardized regression coefficients (and their standard errors). To assess mediation, we followed the steps from MacKinnon [32]. First we assessed the relationship between the predictors and the mediator depression. Next we added depression to the final model between the primary predictor variables and outcomes and assessed changes in the

magnitude and significance of the relationship of the predictors and outcomes. In addition, we used the program PRODCLIN, which calculated confidence intervals to test the indirect effects of variables and is appropriate for multilevel models [33].

Results

Two hundred and thirty-one couples had at least one member with both baseline and 6-month postpartum data ($N = 209$ men and 231 women; 74 % retention) and were therefore included in the analyses, since our analytic strategy can handle partner-level missing data. The final sample consisted of 231 couples ($N = 462$). Demographic characteristics of the sample are provided in Table 1. The average age for males was 21.1 years ($SD = 3.7$) and the average age for females was 18.7 years ($SD = 1.6$). Males were 50.6 % African American and females were 41.6 % Latino. Males reported a significantly higher household income than females and both groups reported similar years of education. Males and females were compared on the predictor variables. Males and females did not significantly differ in levels of family functioning or social capital. However, females reported greater social support ($p < 0.001$). At the 6-month follow-up, 45.6 % of males reported living with one or both parents. 50.9 % of females reported living with one or both parents. 85 % of males and 83.3 % of females reported still being in a relationship with their partner. 45.6 % of males and 49.6 % of females reported living with their partner.

First, univariate models that examined the associations between the predictors of interest and the primary outcomes were examined (Table 2). The results from the mixed model analyses that incorporated both actor and partner predictor variables found that greater social support was significantly associated with increased parenting self-efficacy ($B = 0.062, p = 0.006$) and parenting satisfaction ($B = 0.111, p < 0.001$). Higher family functioning was also significantly associated with greater parenting satisfaction ($B = 0.045, p = 0.035$). Further, we identified one significant partner association. Greater partner family functioning was significantly associated with higher parenting satisfaction ($B = 0.047, p = 0.026$). No other actor or partner predictors were significantly associated with parenting self-efficacy. Gender did not modify any of the associations.

Next, the mediating effect of depression was examined. First we assessed whether social support, family functioning, and social capital were associated with depression at 6 months controlling for covariates. Actor social support ($B = -0.124, p = 0.004$), actor family functioning ($B = -0.114$) and partner family functioning ($B = -0.073, p = 0.020$) were associated with lower levels of depression. Next, depression was added as a predictor to the multivariate models (shown in Table 3) assessing the associations of social support, family functioning, and social capital with parenting self-efficacy and parenting satisfaction controlling for covariates. Lower levels of depressive symptoms were significantly associated with greater parenting satisfaction ($B = -0.232, p < 0.001$) and with greater parenting self-efficacy ($B = -0.119, p < 0.001$). We examined possible mediation of depression using PRODCLIN to assess indirect effects. Depression mediated the relationship between actor social support and parenting efficacy (CI 0.004, 0.028); actor social support and parenting satisfaction (CI 0.009, 0.052); actor family functioning and

parenting satisfaction (CI 0.012, 0.045) and partner family functioning and parenting satisfaction (CI 0.003, 0.033).

Discussion

Our study found the importance of a strong support structure during pregnancy on perceived parenting competence in the early postpartum period for both young mothers and fathers. Both social support and family functioning during pregnancy were associated with a greater sense of parenting competence, and these associations were mediated by parental depression (Table 3).

Higher levels of social support during pregnancy were positively associated with parenting self-efficacy and satisfaction in females and males. Social support during pregnancy has been shown to increase parenting coherence postpartum for adult parents [4], and our results suggest that this association is also present for adolescent and young adult parents. It is possible that pregnant adolescents and their partners who feel more supported during pregnancy have a more positive sense of their parenting potential, which increases their sense of parenting satisfaction. Recent evidence has shown that among first-time mothers, social support of friends, families and professionals provides both informational support on infant care practices and appraisal support, both of which are positively associated with first-time mothers' confidence in their abilities as caregivers [5]. Adolescents may also view the social support as a potential resource while caring for a young child, thus increasing their sense of parenting self-efficacy. The fact that social support was associated with parenting competence among adolescent mothers and fathers underscores the importance of providing social support for young expectant fathers, whose contributions to parenting are often neglected in research and practice and often feel ill-prepared for parenting [34].

Both actor and partner family functioning had significant associations with parental satisfaction. Family functioning has been shown to increase parenting satisfaction in older mothers and fathers [35]. Family functioning may have a more profound effect on the parenting competence of adolescents, as many pregnant adolescents continue to live with their own families during pregnancy and after delivery [19]. Adolescent parents who already have proximate models of positive family functioning may be more likely to experience higher levels of parenting competence, supporting the concept of an intergenerational transmission of parenting, where adolescents who have had more positive familial experiences are more likely to be satisfied in their role as parents [17, 36]. Furthermore, the support of the baby's father is shown to have a positive effect on the parenting competence of mothers [37], and this influence may extend to partner family functioning. Adolescent parents may be better equipped to support their partner's parenting competence if they experienced high levels of family functioning in their own families.

Our study suggests that the associations of social support and family functioning during pregnancy with parenting competence in the early postpartum period may be mediated by lower levels of maternal and paternal depression in the postpartum period. Our results support findings that family functioning acts as a buffer against depression during pregnancy [38] and that depression, low social support and low perceived parenting competence are

associated [7]. These results extend these findings to adolescent mothers and further show that similar mechanisms operate for young fathers.

We did not find an association between social capital and parenting experiences for males or females. As young pregnant and parenting individuals are more likely continue to live with their own families, the influence of social capital may be minimal. Social capital is a more removed measure of support than social support or family functioning, and this finding underscores the importance of immediate support and positive relationship modeling for pregnant adolescents as opposed to community structural support.

Our study has many strengths, including a large sample size, longitudinal design and the inclusion of couples in romantic relationships, which allowed us to examine partner effects. However, several limitations were present. All predictors, mediators and outcomes were assessed using self-report measures, which may have not provided the most objective measurement of these variables. In addition, we measured our outcome variables at 6 months postpartum, and did not consider changes in parenting experiences that may have occurred after this time period. Parenting competence may change as a result of changes in experience or living situation. Another limitation is that the reliability of the parenting efficacy subscale was somewhat low, which may have influenced the validity of the results. Our mediator variable and outcome variables were also measured at the same time point and therefore causality cannot be determined. However, we used prior empirical literature and an a priori conceptual model to drive the directionality of our model. Finally, our sample consisted of young, low-income couples, which may limit the generalizability of the results to other populations. As this was a couple's study, our results may differ from other results in the literature, in that participants were in a romantic relationship at least during pregnancy and for the most part could be reached for follow-up interviews a year postpartum. We acknowledge that relationships during adolescence can often be transient, and our results may not reflect the experiences of adolescent parents that are not part of a couple.

Pregnant adolescents are a particularly vulnerable population who must adjust to impending role changes and new responsibilities as parents. Our results show that social support and family functioning during pregnancy are associated with improved parenting experiences for young mothers and fathers. The results of this study suggest the need for programs that improve support mechanisms during pregnancy for young expectant mothers and fathers. These programs have the capacity to improve maternal and paternal mental health and subsequent perceptions of parenting competence and satisfaction.

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Table 1

Demographic characteristics of the sample

	Males				Females				<i>p</i>
	N	M (SD)	Range	%	N	M (SD)	Range	%	
Demographics									
Age	231	21.1 (3.7)	14–39		231	18.7 (1.6)	15–21		<0.001
Education	231	11.9 (1.9)	7–20		231	11.8 (1.9)	8–20		0.819
Income (\$)	230	17,926 (23,052)	2,500–175,000		230	12,724 (13,448)	2,500–63,000		0.002
Race									<0.001
African American	117			50.6	92			39.8	
Latino	87			37.7	96			41.6	
White	20			8.7	33			14.3	
Other race	7			3.0	10			4.3	
Predictors									
Social support	228	25.15 (9.09)	0–36		228	28.14 (7.62)	0–36		<0.001
Family functioning	228	60.60 (11.74)	26–84		228	61.39 (12.23)	18–84		0.435
Social capital	228	22.28 (6.49)	7–35		228	21.31 (5.52)	7–35		0.076
Mediator									
Depression	203	9.38 (7.04)	0–32		203	9.07 (7.89)	0–42		0.666

Table 2

Unadjusted associations between social support, family functioning, social capital and parenting self-efficacy and satisfaction for both actor and partner predictors

	<u>Parenting self-efficacy</u>		<u>Parenting satisfaction</u>	
	B (SE)	<i>p</i>	B (SE)	<i>p</i>
Actor effects				
Social support	0.100 (0.020)	<0.001	0.158 (0.026)	<0.001
Family functioning	0.046 (0.014)	0.001	0.084 (0.019)	<0.001
Social capital	0.048 (0.029)	0.096	0.112 (0.038)	0.003
Partner effects				
Social support	−0.024 (0.020)	0.222	−0.031 (0.027)	0.252
Family functioning	0.010 (0.014)	0.468	0.036 (0.019)	0.062
Social capital	0.020 (0.028)	0.480	−0.036 (0.038)	0.337

Table 3

Adjusted associations between social support, family functioning, social capital and parenting self-efficacy and satisfaction for both actor and partner predictors

	<u>Parenting self-efficacy</u>		<u>Parenting satisfaction</u>	
	B (SE)		B (SE)	
Actor effects				
Social support	0.062 (0.023)	0.006	0.111 (0.030)	<0.001
Family functioning	0.023 (0.016)	0.156	0.045 (0.021)	0.035
Social capital	0.009 (0.030)	0.777	0.030 (0.041)	0.461
Partner effects				
Social support	−0.023 (0.022)	0.286	−0.018 (0.030)	0.543
Family functioning	0.011 (0.016)	0.505	0.047 (0.021)	0.026
Social capital	−0.002 (0.030)	0.956	−0.068 (0.041)	0.095

Associations were adjusted for age, race, household income, education, parity, co-residence with at least one parent during pregnancy, co-residence with partner 6 months postpartum and whether or not the participants were in a romantic relationship 6 months postpartum, as well as all of the actor and partner predictor variables in the model listed above Bold values indicate statistical significance ($p < 0.05$)