



Family, friend, and neighbour child care providers and maternal well-being in low-income systems: An ecological social perspective

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Integrating theory from the family ecological systems and social support literatures with findings from child care research, in this study we develop and test a model relating family, friend, and neighbour (FFN) child care provider characteristics to perceived child care quality (provider reports of caregiving behaviours, mother–provider caregiving relationship) and maternal well-being (work–family conflict, depressive symptoms). Results from phone interviews with 187 FFN providers receiving public subsidies indicated that even after controlling for familial status or household income, caregiver perceptions of higher quality care were associated with higher education levels, greater attachment to child care as a job; and lower provider depressive symptoms. After controlling for familial status, data analysed from a subset of 51 mother–provider pairs, indicated that mothers using care from providers who reported higher quality parent–caregiver social relationships reported lower work–family conflict and depressive symptoms. This study suggests mothers who have providers with whom they have good caregiving interactions may experience positive social support and psychological crossover dynamics associated with mother well-being.

Bronfenbrenner (1974) noted that one shortcoming of human ecological research is that most studies focus on examining processes within a single setting (e.g. family, child care centre) rather than the influence of cross-setting relationships. This trend also characterizes work–family scholars writing from a work perspective (e.g. occupational and industrial psychology, organizational behaviour, management, labour economics, and relations). These scholars often examine workers' well-being from influences in the job setting, giving relatively little attention to critical non-work relationships, such as between mothers and child care providers and care quality – as critical non-work supports.

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Similarly, work–family studies from one discipline often have limited interdisciplinary crossover to another (Kossek, Sweet, & Pitt-Catsouphes, 2006), even when examining important research topics such as child care that are substantively cross-disciplinary. Yet work–family research is by definition interdisciplinary and involves antecedents and outcomes crossing multiple settings. Our understanding of complex social problems such as child care and work and family effectiveness will be enhanced by studies designed to link constructs across scholarly fields.

Family, friend, and neighbour care: An important work–family support

Family, friend, and neighbour (FFN) child care (Brandon, 2005) provides an important lens in which to study cross-setting and disciplinary linkages. Relatively little research on FFN or low-income subsidized care and its relation to maternal well-being has appeared in the I–O psychology, management, or occupational health journals, where considerable work–family research is published. Also known as kith and kin, informal, unregulated, and license-exempt care, this is the most common child care arrangement used in the US (cf. O'Donnell *et al.*, 2006). Scholars estimate that from one third (Sonenstein, Gates, Schmidt, & Bolshun, 2002) to at least half of all children under five (Porter, Rice, & Mabon, 2003) regularly use these unlicensed arrangements and take place in the provider's home. Many FFN caregivers are relatives such as grandparents, siblings, and extended family (Smith, 2002). FFN care comprises 40% of all non-parental care for infants and toddlers (Maher, 2007) and a third of all preschooler care (Human Services Policy Center, 2005).

FFN care is growing in the US due to several trends. Sixty percent of mothers with child under five are now in the labour force (US Department of Labor, 2004). There is a shift to a service economy that increasingly employs females often in lower income service jobs (Simons, 2002). Major welfare reform over the past decade emphasizing time limits and full-time employment has led to rising public subsidies making FFN care a key component of national US child care policy (Anderson & Levine, 2000). A critical support for moving low-income families with children from welfare to work, a quarter of all children in subsidized care (vouchers average \$2 an hour) use FFN providers (US Child Care Bureau, 2006). Single parent (many female-headed, or minority) families living at or near poverty level (\$16,000 or less) are heaviest users of FFN care (Casper, 1997; Webster & Bishaw, 2007). Low-income families often choose FFN care as it is inexpensive, easy to access, and often enables many providers to also hold other part-time jobs. Overall, FFN care is an increasingly important social support that links quality experiences in the caregiving setting with the well-being and work–family conflict of employed individuals.

Study goals, overview of theoretical framework, and research questions

Integrating theory from family ecological systems (Bronfenbrenner, 1977, 1979) and informal social support (Caplan, Cobb, French, Harrison, & Pinneau, 1980; Caplan, Harrison, Wellons, & French, 1975) with research on FFN child care, the goal of the current study is to develop and test a model (see Figure 1) that links provider characteristics to intended child care quality and, ultimately, to maternal psychological well-being (depressive symptoms and work–family conflict).

Our hypotheses and model align with Bronfenbrenner's (1979) human ecology theory, which has been applied by Clifford, Harms, Pepper, and Stewart (1992) and Phillips and Howes (1987) to define child care quality as having three components.

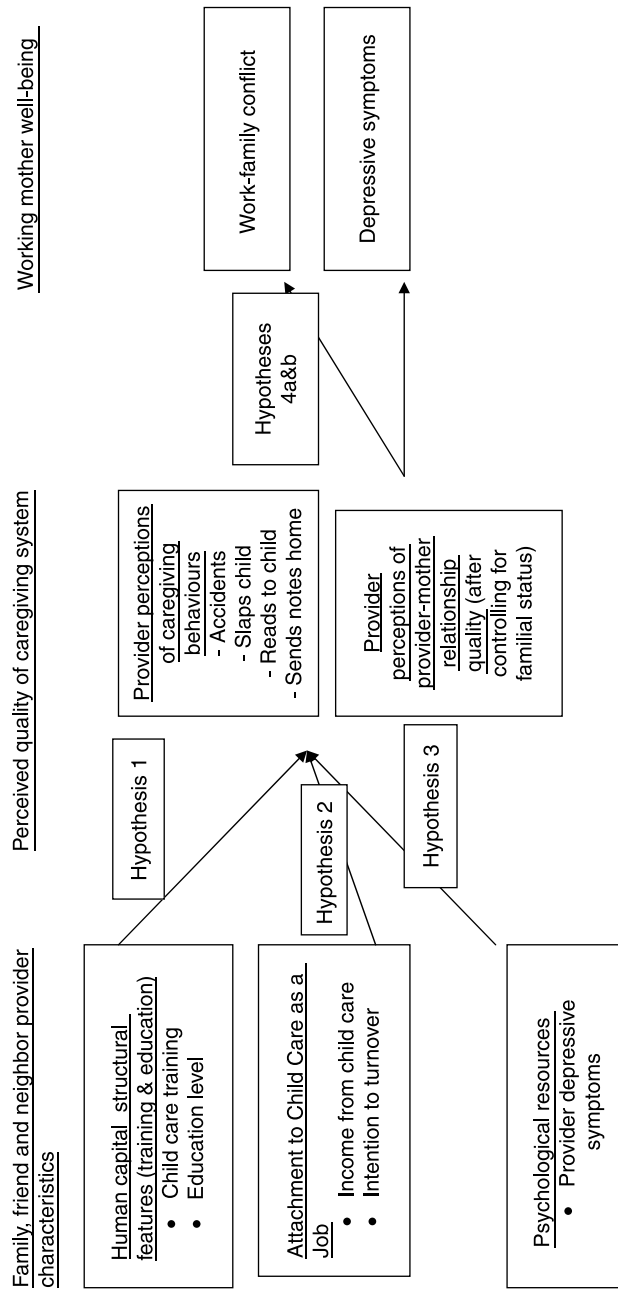


Figure 1. Model of the relationship between family, friend, and neighbour (FNN) provider characteristics, child care quality, and maternal well-being.

We adapted and included those measures from these earlier studies of licensed care that were most pertinent to FFN care as Maher (2007) recommends. These are: *human capital quality* (e.g. training and level of education); *provider psychological well-being* (e.g. depressive symptoms); and *adult work environment*, namely work-role attachment to child care as a job (e.g. income derived from caregiving and intention to turnover). These three main provider components are theorized to be directly related to child care quality constructs as perceived by caregivers: quality of intended caregiving behaviours with the child (e.g. reading etc.) and good provider-parent relationships (Kontos, 1995). Assuming that child care that is higher quality is more likely to be experienced as positive social support, we theorize that having a provider with higher quality care intentions directly relates to lower mother work-family conflict and depressive symptoms. This link is consistent with research on psychological crossover studied in married couples. Crossover refers to dynamics when psychological aspects related to the job demands are psychologically transmitted from job incumbents to family members affecting their psychological and physical health (Westman, 2001).

Our first set of hypotheses (1-3) examines the extent to which characteristics of FFN child care providers (education and training, attachment to child care as job, and psychological well-being) relate to perceived child care quality (defined as provider reports of positive caregiving behaviours and good relationships with the working mother). The second set of hypotheses (4a and 4b) examines the extent to which these aspects of perceived child care quality relate to maternal well-being (depressive symptoms and work-family conflict).

Child care providers' critical role in work-family ecological social support system

Although early work-family research by writers from the employment perspective studied formal organizational policies and practices that mitigate work-family conflict, there is increasing recognition of the importance of support from informal systems (e.g. Allen, 2001; Kossek, Colquitt, & Noe, 2001). Social support theory posits that social support can come from both work and non-work sources, and that both sources of support are essential to managing stress across work and home domains (Caplan *et al.*, 1975, 1980). In the management and work psychology literatures, most studies on informal support focus on workplace support from the organization, supervisors, or co-workers. While studies consistently indicate that social support outside of the workplace, from family members (e.g. Frone, Yardley, & Markel, 1997), friends, and neighbours (e.g. Elloy & Mackie, 2002) is an important correlate of reduced work-family conflict, child care providers typically are not included in these literatures. Social work scholars, Bromer and Henly (2004), note that providers are an increasingly important source of family social support beyond the direct instrumental care of children. They theorize care in a home by a familiar provider perhaps may be more likely to foster the development of intimate provider-mother relationships and social support than centre-based care, which has higher staff turnover and a multiple caregiver structure. FFN care also has embedded social ties nested in the family and community system that often continue beyond the life of the arrangement (Bromer & Henly, 2004).

Although Bronfenbrenner's (1977) framework of the family ecological environment as a nested arrangement of levels of a system focuses on child developmental outcomes, his theory is highly applicable to this study's investigation of relationships between child care provider characteristics and perceived caregiving quality; and ultimately mother's well-being. Applying a nested model, each care arrangement represents a critical work-family

support relationship linking the FFN provider with the employed parent (e.g. mother in the current study). The positive power of non-work support for effectiveness in the work-role cannot be underestimated. For example, Henly, Danzinger, and Offer (2005) found that after controlling for job quality, over time welfare mothers who perceived positive support from their informal social network were more likely to move out of poverty.

Family, friend, and neighbour child care quality

Early studies on FFN quality

Researchers have had difficulty agreeing on a common definition of FFN care quality, because of a lack of clarity in terminology, measurement, and the heterogeneity of this care form (Kontos, 1995). Early research from the NICHD National Child Care Study (Divine-Hopkins, 1981) provided descriptive statistics often lumping findings for non-maternal care (e.g. centre-based and non-centre based care, type of provider) into overlapping categories that were difficult to interpret. What researchers do agree on is that quality was a concern. Analysis of NICHD data revealed that positive caregiving would be described as 'somewhat characteristic' or 'highly characteristic' of only 39% of young children's experiences in non-maternal care (Kontos, 1992). Issues of FFN care quality remain central today (Brandon, 2005), as it is often of lower quality and less developmentally appropriate for children than licensed care (Kimmel, 1998). Given it remains the most widely used care, policy has shifted to recognize that rather than criticizing care quality, it is also important to understand quality antecedents.

Provider perceptions of care quality intentions

Previous research of quality of unlicensed child care typically included ratings from experts visiting the homes (e.g. Harms & Clifford, 1989). However, there is a movement by policy experts to include FFN care quality measures that corresponds to provider and family perceptions of what quality care means to stakeholders (e.g. Porter *et al.*, 2003), instead of just expert ratings. We believed it was important to measure quality of caregiving processes (provider behaviours and mother-provider relationship) from provider perceptions, which are now increasingly included in FFN studies (cf. Porter *et al.*, 2003), because we were interested in psychological relationships that crossover between providers and mothers.

Caregiving behaviours: Reading, safety and accidents, regular communication, avoiding physical punishment

We identified four provider behaviours as indicators of higher caregiving quality (e.g. Brandon, Maher, Joesch, Battelle, & Dyole, 2002; Kontos, Howe, & Galinsky, 1996). The first behaviour was regular reading to the child. Provider behaviours that support language and literacy development such as reading are widely included across studies as a quality measure (Maher, 2007). It is a large part of FFN provider-child interactions (Porter *et al.*, 2003). A second behaviour is paying attention to preventing accidents and ensuring a safe environment (cf. Scarr & Eisenberg, 1993). This is done through monitoring children and keeping attentive watch on them, using safe toys, keeping sharp objects or household chemicals locked up, washing hands regularly, and having children play in a supervised area (Porter *et al.*, 2003). A third behaviour is established communication such as writing notes to parents, and exchanging information at pick up

and drop off about the child's activities and personal needs, coordinating schedules and doctors' appointments, and emergency information (Honig, 1995; Porter *et al.*, 2003). A fourth behaviour is use of discipline that avoids physical punishment; instead of slapping a child to help them learn, discipline that encourages socio-emotional development by using positive reinforcement to redirect children from inappropriate (e.g. hitting) to appropriate (e.g. sharing) actions (e.g. Porter *et al.*, 2003).

Quality of provider–mother relationship

Studies consistently identify good parent and provider personal relationships as an indicator of higher FFN quality (Maher, 2007). Parents and providers who perceive good relationships are more likely to have greater care consistency and avoid conflicts over child rearing approaches or discipline (Porter *et al.*, 2003). When relationship quality is good, mothers are likely to experience higher social support from these providers who are not only caregivers, but friends and relatives with permeable social roles (Porter *et al.*, 2003). When providers perceive good relationships with parents, they are more likely to be able to work together in a productive manner to solve problems over the child, and socially support each other.

The belief that the quality of the parent–FFN provider relationship is a key aspect of family systems is consistent with not only Bronfenbrenner's (1977, 1979) ecological theory noted above, but research on psychological crossover effects in the stress literature demonstrating that the attitudes and behaviours of individuals within a family system have effects on other family members' attitudes and behaviours (e.g. Hammer, Allen, & Grigsby, 1997). Studies have found that the psychological well-being and job perceptions of one member of a dual-earner couple are significant predictors of the work–family conflict and well-being of the other (Westman, Vinokur, Hamilton, & Roziner, 2004). Extrapolating on these results, we believe that the more that a provider perceived negative psychological relationships and caregiving behaviours, the lower the mother's well-being, as there will be more caregiving disagreements, less trust, and problems. The mother will also experience social interactions as more negative and less supportive.

Predictors of child care quality

Human capital quality (provider training and level of education)

Research shows that provider's level of training and education are essential predictors of care quality in formal child care settings. The National Institute of Child Health and Human Development Early Child Care Research Network reports that positive caregiving for infants and toddlers was more likely when caregivers were more educated and had more experience in child care (NICHD ECCRN, 2000). Providers with training related to child care and relatively higher levels of education are more likely to develop organized learning activities that are age appropriate (Burchinal, Roberts, Nabors, & Bryant, 1996). These caregiver characteristics are associated with increased social development of children as well as creating a safer care environment (Scarr & Eisenberg, 1993). Caregiver knowledge has also been associated with higher quality caregiving behaviours in home-based family day care (Kontos, 1995; Krisker, Hofferth, Phillips, & Farquhar, 1991).

Our first several hypotheses allow us to investigate whether these same relationships carry over for the FFN care. While providers' human capital, such as specific child care training and general educational level, have consistently been found to be positively correlated to child care quality in formal centre settings, the robustness of these

relationships has been questioned, in part because of under-investigation in unlicensed low-income settings (Blau, 1997). In fact, Maher (2007) argues that some indices of care quality that have been applied to centre-based care may not be relevant to FFN care.

Yet there is emerging evidence that FFN providers who are more educated and knowledgeable are more likely to engage in higher quality caregiving behaviours and relate better to parents. One rationale for this pertains to the concept of *intentional caregiving*, the extent to which providers have characteristics helping them to have higher engagement in the caregiving role. Intentional caregiving is a key predictor of higher quality care in FFN contexts (Galinsky, Howes, Kontos, & Shinn, 1994; Stahl, O'Donnell, Sprague, & Lopez, 2002). Regarding training and education, Galinsky and colleagues (1994) and later Stahl and colleagues (2002) note that intentional providers seek opportunities to learn about child development and think ahead about what children will do and plan child care experiences for them. Porter *et al.* (2003) found that more knowledgeable FFN providers were more aware of how children's activities related to their socio-emotional development at different stages.

Even if a provider such as grandmother or aunt is not highly educated, there are growing short term training opportunities targeting FFN providers. Many US are offering free child care training to support FFN and other home and family providers as a way to increase the supply and quality of child care (cf. Kontos *et al.*, 1996; Taylor, Dunster, & Pollard, 1996). Given this research suggesting that FFN provider training and education are correlates of intended care quality, we predict that:

Hypothesis 1a and 1b: Human capital structural indicators of formal child care training (H1a) and provider education level (H1b) will be positively related to perceived child care quality.

Adult work environment quality predictors: Provider attachment to child care as a job (pay and turnover intentions)

Child care workers are notoriously underpaid, and perhaps as a result, have high turnover rates from the profession (cf. Blau, 1999; Kontos *et al.*, 1996). Research on linkages between staff pay and caregiver quality is mixed. Blau's (1997) economic study of licensed centres reported null results (1997). Kontos (1995) said pay was not a good predictor of quality in her study of relative and family care, which also analysed many policy concerns. However, research focused on linkages between provider views of caregiving as a job, does suggest quality is related to how the provider experiences the work environment. For example the National Child Care Staffing study found that lower staff turnover and higher wages were consistently related to higher care quality (Whitebook, Howes, & Phillips, 1989).

Pay and turnover theoretically relate to provider characteristics comprising intentional caregiving. Intentional providers have higher commitment to the child care role, and believe their work is valued (Stahl *et al.*, 2002). They consistently give higher quality care than those with lower commitment or who did not see their job as important.

FFN care providers often are considered a secondary labour market; that is, child care providers are workers who may have difficulty working in a primary standard wage labour market and perform child care as a secondary option (Cleveland & Hyatt, 2002). Research shows that even if the pay is nominal, many FFNs do expect to receive some pay for child care (Porter, 1998). Porter and colleagues (2003) found that while child care payment is not the main reason FFN providers engaged in care, subsidies did enable these providers to be able to stay home and provide care and not have to work in other jobs to support their families.

We surmised that FFN providers who are in work environments where they garner higher income even if modest (as many relatives are not paid at all) are more likely to be committed to caregiving. They are more likely to feel their work is valued, given their higher rewards (intrinsic and extrinsic) from being paid and not taken for granted. Given their higher attachment to the caregiving role, they will be more likely to identify with caregiving as a regular role, and not just helping out temporarily.

Providers with higher commitment to the caregiver role (i.e. not intending to turnover) who see themselves as continuing in care for the future are more likely to engage in higher quality caregiving and structure the child's day in more constructive ways. As role theory suggests (Katz & Kahn, 1966), the more that an individual identifies with a given role (in this case providing high-quality child care), the more effort that will be put forth to perform effectively in that role. Organizational psychologists have long believed (Mowday, Porter, & Steers, 1982) that lower turnover intentions should be positively related to organizational commitment as well as higher role performance. Taken together, we believe that greater attachment to the child care role is positively related to child care quality. Specifically, we propose:

Hypothesis 2a and 2b: Provider attachment to child care role in the form of higher provider child care compensation (H2a) and lower intention to turnover from providing child care (H2b) will be positively related to perceived child care quality.

Provider psychological well-being

Providers' own psychological well-being is theorized to affect child care quality. The warmth, sensitivity, and responsiveness of the provider has consistently been shown to relate to care quality and children's cognitive and social development across licensed and unlicensed care situations (NICHD Early Child Care Research Network, 1996; Porter et al., 2003; Scarr & Eisenberg, 1993).

FFN providers who have lower depressive symptoms and positive affect will be more likely to have higher awareness of children's emotional state, and show greater warmth and appropriate social behaviours directed to the children. Being able to respond appropriately and positively to children is important because process aspects of the child care relationship, such as the quality of interaction between the provider and the child, degree of warmth, and communication, are related to high-quality child care in both licensed and FFN settings (Galinsky, 1986; Porter et al., 2003). Providers who have more positive well-being will be more able, and more inclined, psychologically to enact such positive behaviours as reading to children, and will be more cognizant of preventing negative behaviours, such as accidents. They are also likely to have more psychological energy to communicate with parents, engage in quality caregiving behaviours, and to develop better quality relationships with mothers. We predict:

Hypothesis 3: Providers with lower psychological resources (e.g. higher depressive symptoms) will have lower perceived child care quality.

Psychological crossover: Provider perceptions of relationship quality to mothers' well-being (work-family conflict, depressive symptoms)

Our ultimate dependent variables relate to mother well-being, since working mothers typically select and manage child care arrangements, have the most interaction with providers, and their health directly affect the well-being of not only themselves but their children (Kimmel, 1998). We hypothesized that the provider-mother relationship is an

important antecedent of mother's work-family conflict and depression because this is the aspect of intended child care quality that is salient and visible to the mother. While we believe provider perceptions of frequency of other caregiving behaviours such as discipline and reading are important in this respect, we did not hypothesize *a priori* that there would be a crossover, since the mother is relatively less aware of the actual frequency of the enactment of these behaviours since they occur when she is not present. There are several explanations for linkages between the quality of provider relationship and mother well-being, including levels of child care quality and satisfaction, social support from provider to mother, and crossover dynamics.

Erdwins, Casper, and Buffardi (1998) found that higher child care satisfaction is significantly and negatively related to work-family conflict. If the provider and the parent do not have a positive relationship, child care quality will be lower, as it is unlikely that the needs of the child or related caregiving problems will be discussed effectively. Further, interactions with the provider will be experienced as stressful. Mothers with poorer quality provider relationships are likely to be less satisfied with child care and have lower well-being.

The quality of the parent-provider relationship is highly relevant for all working mothers, but it is especially critical for low-income mothers, since their providers play a critical role in not only directly providing care but also developing close relationships with parents that often serve as important informal social support (Bromer & Henly, 2004). Providers serve an overlapping form of social support as part of the quality of caregiving and the informal familiar social system (Bronfenbrenner, 1977, 1979). As Henly *et al.* (2005) found, having a job rated of higher employment skills did not ultimately predict whether a mother lived in poverty over time, but access to positive informal social relationships did. It is important to measure mother well-being because of the many stresses that low-income mothers face in providing for their children and finding quality child care (Kossek, Huber, & Lerner, 2003). These stressors are particularly relevant to low-income mothers because of concerns about care quality and the fact many are forced to enter the workforce through welfare reforms and face benefit cut-offs. We propose that if the quality of the relationship with the provider was poor, mothers would be more likely to have higher work-family conflict and depressive symptoms as they would perceive lower social support and higher barriers to self-sufficiency and successful labour market participation.

Although we are unaware of studies showing crossover effects in the context of provider-parent relationships, we believe that provider perceptions of the quality of the relationship may crossover and affect mother's well-being. We have noted crossover research showing that negative experiences of job incumbents' can psychologically crossover and affect the well-being of other family members (Westman *et al.*, 2004).

Hypothesis 4a and 4b: Providers' perceptions of higher relationship quality with mothers will relate to lower work-family conflict (4a) and depressive symptoms (4b) for mothers.

Method

Child care provider sample

The 187 child care providers comprised a FFN provider sample. All providers received public subsidies from a mid-western state social service agency. Descriptive statistics on provider backgrounds are reported in Table 1. Participants were 43 years old on average.

Table 1. Descriptive statistics – child care provider background variables

	N	M	Median	SD
Current # of children in care	187	3.65	3.00	3.30
Age youngest child (months)	187	28.00	24.00	16.58
Age of oldest child (months)	173	77.49	66.00	35.28
Current child disabled (1 = yes)	187	0.19	0.00	0.395
# Children cared for over years	182	24.41	12.00	36.31
Receive assistance from others providers? (1 = yes)	187	0.27	0.00	0.447
If assistance, how many people help?	57	1.72	1.00	1.612
Years of experience caring for children	187	12.63	8.00	10.91
Hours providing child care (weekly)	184	43.85	42.00	20.67
Regular contact with other providers? (1 = yes)	186	0.60	1.00	0.491
Age (years)	185	42.67	44.00	12.05
Income from this job (weekly \$)	167	242.00	200.00	186.00
Education (1 = no high school; 6 = college grad)	187	2.56	3.00	1.10
Formal training (1 = yes)	187	0.48	0.00	0.50
Care for own and other's children (1 = yes)	186	0.41	0.00	0.49

Providers' educational background was highly variable: approximately 36% of the sample had only a grade school education; 40% had some post-secondary education; and 6% had earned a baccalaureate degree. Providers spent about 44 hours per week on average caring for children, earning an average of 242\$ per week. Most participants, about 60%, provided care for 3–4 children, ranging in age from 2 months to over 6 years old. While the majority of the children that the providers cared for were not special-needs children, approximately 20% of the children had some type of disability. Most of the providers in our overall sample (73%) were caring for children to whom they were related. We controlled for whether or not providers were related to the children in their care in all of our analyses since this may impact the way children are treated and how care is administered. Data were collected from the child care providers and from a subset of 51 mothers (see below) through telephone interviews conducted by the researchers.

Measures

FFN provider characteristics predicting perceived child care quality

Human capital

Childcare training was measured dichotomously by asking providers 'Have you gone to child care training?'. Education level was measured using a six-point scale which asked respondents to report their highest level of education, which ranged from non-high school graduate to having a baccalaureate degree.

Attachment to child care as job

Provider income was measured continuously by asking respondents 'What did you earn from this job last week?' *Intent to turnover* ($\alpha = .73$) was measured using standard intention to turnover scales from University of Michigan Institute for Social Research (Caplan et al., 1980). A sample item is: 'I frequently think of quitting this job'. These items utilized a three item scale five-point Likert-type response scale with higher responses indicating greater intent to turnover.

Provider psychological resources

Depressive symptoms ($\alpha = .83$) were measured using the depressive symptoms subscale from the inventory of overall mental health by Caplan *et al.* (1980). Respondents were asked, 'How often have you experienced each of these during the past month?' Items included: 'You felt good'; 'You felt depressed'; 'You felt cheerful'; 'You felt sad'; and 'You felt unhappy'. Positive items were reversed scored. The higher the scale, the greater the depressive symptoms. The scale ranged from 1, 'never' to 5, 'almost always'.

Dependent variables-provider sample: Provider perceived quality of caregiving

The measures of quality employed in this study are providers' perceptions of behaviour and quality. We used these measures rather than expert observations of regulated child care quality, which many scholars believe is less apropos to the unlicensed setting (Maher, 2007). Provider perceptions of quality are increasingly used in FNN studies as a key stakeholder indicator (cf. Porter *et al.*, 2003). Further, we were interested in psychological perceptual linkages between mother and provider. Finally, these behavioural measures are relatively objective frequency-based questions with an acceptable amount of variability in reporting.

Perceptions of caregiver quality behaviours

We identified four key objective behaviours that have been shown in previous research to be linked to positive outcomes for children (e.g. Clarke-Stewart, 2001; Harms & Cliffords, 1989; Porter *et al.*, 2003). The four items are: 'How often have there been accidents since this child began care with you?'; 'How often do you slap this child's hand or bottom to help him/her learn?'; 'How often do you talk to this parent or write notes about how this child felt or behaved during the day?'; and 'How often do you read to this child?'. Each of the items was scored using a five-point scale that ranged from never to daily.

Like the majority of FNN providers, most of our providers gave care for multiple children at the time of sampling. In order to compare quality, we measured quality of care for a specific target child (youngest). An exploratory factor analysis confirmed these items were not a single latent construct, consistent with work by Clarke-Stewart (2001), but were separate measures of quality. No clear factor emerged with an acceptable Eigenvalue, and the scree plot indicated that the items represented distinct behaviours.

Perceptions of caregiver-mother relationship

Because we did not find established scales specifically tailored to mother-FNN provider relationships, which experts argue require different items than centre-based care (e.g. Maher, 2007), we developed an original seven item measure based on the literature. Using a five-point Likert scale, the items are: (1) When conflicts arise, we can work through them; (2) This parent and I like each other; (3) This parent does not respect me (reversed); (4) This parent follows through with decisions; (5) This parent trusts me to care for their child; (6) This parent and I have conflicts over child care (reverse); and (7) This parent and I rarely rely share information (reverse). These formed a composite measure of the *relationship quality* between the parent and the provider ($\alpha = .80$). We conducted an exploratory factor analysis. Results indicate that all items loaded on

a single factor, which explained 48.62% of the variance in the data. Factor loadings range from 0.512 to 0.803.

Linked mother sample

One reason low-income and FFN care has been under-studied is because of the difficulty of locating these samples, extremely high turnover rates, lack of phones, transitional housing, and other sampling barriers. Despite these challenges, we recognized the need for non-same source outcome data. Working through entry via the providers, we were able to reach 51 parent respondents whose children were receiving care from the providers in order to create a matched provider–parent sample. For our linked sample, nearly all (83%) knew the mother before care began, and 60% of the mothers were directly related to the providers. Since being related to a child care provider may impact the relationship quality measure, we controlled for a familial relationship status using a dummy variable (i.e. 0 = no, 1 = yes). Most mothers (60%) earned \$1,600 or less per month. Most (80%) did not have degree completion for higher than a high school education.

Independent and dependent variables: Linked mother–provider sample

Provider perceptions of relationship quality with parent ($\alpha = .76$). We chose to use the provider's perspective of the relationship as a predictor variable as to reduce the threat of common method variance. Thus, relationship quality was measured from splitting the datafile creating a subset sample of the providers in the overall, larger provider sample (i.e. the same scale items were used). Even with the smaller sample of only 51, the scale was still reliable.

Dependent variables-mother sample

Mother depressive symptoms ($\alpha = .80$) was measured using the depressive symptoms subscale from the inventory of overall well-being development and mental health by Caplan et al. (1980).

Mother work–family conflict ($\alpha = .68$) is a six-item, bidirectional scale using items from Gutek, Searle, and Klepa (1991) that measures both work-to-family and family-to-work conflict. Examples of the former include 'After work I come home too tired to do some of the things I'd like to do', and examples of the latter include 'My personal demands at home are so great that it takes away from my work on the job'. Items were measured using a five-point scale that ranged from strongly agree to strongly disagree with the higher the score the higher the levels of conflict. Although this reliability is just below a reliability cut-off of .7, studies have shown standardized work–family conflict scales developed on middle and upper class samples, sometimes perform slightly less well in low-income samples (cf. Kossek, Huber, & Lerner, 2003).

Results

Means, standard deviations, intercorrelations, and scale reliabilities are reported in Tables 1–3. We tested our hypotheses using a multivariate analysis of covariance (MANCOVA) because all of our dependent variables (i.e. child care behaviours and relationship quality) were conceptually related, and because we presumed that our

Table 2. Means, standard deviations, intercorrelations, and scale reliabilities: Provider sample

	M	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Child care training	0.48	0.50	—										
(2) Education	2.56	1.10	0.24	—									
(3) Income from child care	242.07	186.00	0.21	.14	—								
(4) Turnover intentions	1.77	0.74	0.204	-.01	-.13	(.73)							
(5) Provider depression	1.54	0.67	-.006	.05	-.15	-.33	(.83)						
(6) Send notes home	1.53	1.02	-.009	.08	.01	.12	-.04	—					
(7) Accidents	4.63	0.64	0.14	.07	.11	.10	.07	.04	—				
(8) Slap hand or bottom	4.56	0.85	-.013	-.26	-.23	-.22	-.18	-.01	-.01	—			
(9) Reads to child	1.55	0.84	0.11	.15	.08	.11	-.16	.10	-.05	-.15	—		
(10) Relationship quality	4.52	0.49	0.02	-.20	-.12	.15	-.19	-.22	.15	-.06	-.06	(.80)	
(11) Familial status	0.73	0.19	-.045	-.25	-.26	-.08	.02	-.01	-.09	.25	.00	.19	—

Note. All correlations larger than .14 (absolute value) are significant at $p < .05$.

Table 3. Means, standard deviations, intercorrelations, and scale reliabilities: Linked mother–provider subsample

	<i>M</i>	<i>SD</i>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Relationship quality	4.69	0.44	(.76)					
(2) Work – family conflict	2.17	0.87	–.37*	(.68)				
(3) Depression	2.16	0.89	–.49**	.37*	(.80)			
(4) Household income (monthly)	1,589.9	1,093.2	–.38*	.06	–.12	–		
(5) Education	2.90	1.08	–.18	–.06	–.26	.31*	–	
(6) Family relationship status (1 = yes, 2 = no)	1.40	0.49	–.23	–.15	.06	.17	.45**	–

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

dependent variables were not necessarily independent of one another. Child care training and familial status were treated as fixed effects since these were dichotomous variables, and the continuous variables (i.e. income, depression, education, and turnover) were treated as random effects. Results of this analysis are reported in Table 4.

Hypotheses 1a and 1b predicted that child care training and education, respectively, would be positively related to perceived child care quality. Child care training was marginally negatively related to the number of accidents in the child care setting since the target child began care with the provider, as it was approaching significance but did not reach the .05 statistical threshold ($F(1, 154) = 3.116$, $\beta = -0.195$, $p = .08$). Hypothesis 1a received only limited support. These results may be due to the fact that the training is usually relatively short, a limited labour quality investment.

Provider education level was negatively related to how often providers slapped children to help them learn ($F(1, 154) = 7.093$, $\beta = -0.164$, $p = .009$). Providers with higher education level were less likely to slap children as discipline. To our surprise, education level was negatively related to the relationship quality between the provider and the parent ($F(1, 154) = 8.426$, $\beta = -0.096$, $p = .004$). This is perhaps due to the correlation between familial relationship status and education ($r = -.25$), that is, providers who care for children who are related to them are overall less educated than those who care for unrelated children, and most of the providers and mothers were related in our sample. That said, overall our data indicate that relationship quality is usually better when providers and mothers are related ($r = .19$, $p < .05$). Hypothesis 1b was partially supported. Providers with higher education were less likely to use physical discipline.

Hypotheses 2a predicted that the income earned from providing child care would be positively related to child care quality. Provider income was marginally negatively related to how often providers slapped children to help them learn, as it was approaching significance, but did not reach the .05 statistical threshold ($F(1, 154) = 2.830$, $\beta = -0.164$, $p = .095$). Hypothesis 2a received only limited support.

Hypothesis 2b predicted that provider intent to turnover would be negatively related to perceived child care quality. Intent to turnover was negatively related to relationship quality ($F(1, 154) = 27.027$, $\beta = -0.295$, $p = .000$), as well as to how often providers slapped children to help them learn ($F(1, 154) = 3.995$, $\beta = -0.211$, $p = .047$). Hypothesis 2b was supported. As predicted, providers who intended to leave their child

Table 4. MANCOVA model: Relationship between provider characteristics (human capital, role attachment as job, psychological capital) and reports of care quality

	Between-subjects effects			Sig. level
	SS	β	F	
Sends notes home				
Child care training	1.568	0.244	1.556	.214
Education level	1.691	0.099	1.679	.197
Income from child care	0.010	0.000	0.010	.922
Depression	0.045	0.029	0.045	.833
Intent to turnover	2.465	0.206	2.448	.120
Familial status	0.026	-0.036	0.025	.874
Accidents				
Child care training	1.256	-0.195	3.116	.080†
Education level	0.016	0.010	0.040	.841
Income from child care	0.189	0.000	0.470	.494
Depression	0.068	-0.036	0.168	.682
Intent to turnover	0.164	0.053	0.408	.524
Familial status	0.006	-0.011	0.014	.906
Slaps hand or bottom				
Child care training	0.032	-0.118	0.050	.823
Education level	4.598	-0.164	7.093	.009**
Income from child care	1.831	-0.001	2.830	.095†
Depression	0.800	0.124	1.236	.268
Intent to turnover	2.585	-0.211	3.995	.047*
Familial status	3.006	-0.435	4.645	.033*
Reads to child				
Child care training	0.857	-0.178	1.204	.274
Education level	1.721	0.100	2.405	.123
Income from child care	0.021	0.000	0.029	.864
Depression	3.872	-0.274	5.438	.021*
Intent to turnover	0.186	0.057	0.261	.610
Familial status	0.473	-0.134	0.664	.416
Relationship quality				
Child care training	0.379	-0.113	2.015	.157
Education level	1.582	-0.096	8.426	.004**
Income from child care	0.044	0.000	0.232	.634
Depression	0.021	0.020	0.114	.736
Intent to turnover	5.075	-0.295	27.027	.000**
Familial status	0.138	-0.067	0.773	.393

† $p < .10$; * $p < .05$; ** $p < .01$.

care jobs reported poorer quality child care. They slapped children more often (an inappropriate discipline behaviour) and had poorer quality relationships with parents.

Hypothesis 3 predicted that depressive symptoms among providers would be negatively related to perceived child care quality. Depressive symptoms were negatively related to how often providers read to children in their care ($F(1, 154) = 5.438$, $\beta = -0.274$, $p = .021$). Hypothesis 3 received some support: providers who had higher depressive symptoms were less inclined to read to children in their care.

We tested hypotheses 4a and 4b using standard linear regression. For parsimony and to manage power of our sample size, and since household income was not related to relationship quality, for hypothesis 4 we control only for familial status, since this could substantively impact relationship quality. Results of the regression analyses are reported in Table 5. Hypothesis 4a predicted that caregivers' perceptions of relationship quality between providers and parents would be negatively related to mother's work-family conflict, which was supported: $F(1, 43) = 3.575$, $\beta = -0.807$, $p < .05$, $R^2 = .383$. Hypothesis 4b predicted that caregiver perception's of relationship quality would be negatively related to mother's depressive symptoms, which was supported: $F(1, 49) = 7.594$, $\beta = -1.106$, $p < .01$, $R^2 = .244$.

Table 5. Linear regression results: Provider perceptions of mother-caregiver relationship quality and depression and work-family conflict controlling for relative status

	Unstandardized	Standard error	t	p-level
Work – family conflict ^a				
(Constant)	6.424	1.674	3.838	.000
Family member	-.322	.308	-1.048	.301
Relationship quality	-.807	.306	-2.638*	.012
Depression ^b				
(Constant)	7.361	1.552	4.743	.000
Family member	-.188	.286	-0.659	.513
Relationship quality	-1.1056	.285	-3.707*	.001

^a Note. $R^2 = .383$. $F = 3.575(1, 43)$, $p = .039$.

^b Note. $R^2 = .244$. $F = 7.594(1, 49)$, $p = .001$.

* $p < .05$.

Discussion

The critical role FFN providers play in supporting child care quality and linkages to the employed individual's ecological social system and well-being has been understudied in the organizational psychology and occupational health psychology literatures. We have suggested the social support literatures and family ecology literatures as a way to bridge these fields. More research is needed that examines the most prevalent care being used – not licensed child care – but the unlicensed FFN kind most used by working parents, especially low-income families moving from welfare to work. Work-family scholars tend to more often use single source surveys focused on the perspective of employees or employers and the effectiveness of workplace supports for family, but much less frequently link these constructs to the child care provider systems and the effectiveness of non-workplace supports (i.e. child care processes).

Quality of relationship with provider matters

Mother crossover effects

One of the most important findings of this study is that the providers' views of quality of provider-parent caregiving relationships were positively linked to mothers' psychological health in the form of lower depressive symptoms and work-family conflict.

Even with a relatively small sample of 51 pairs, after controlling for familial status, relationship quality explains 24.4% of the variance in depression, and 38.3% of the

variance in work-family conflict. Having good provider relationships is critical for working mothers' well-being, and this form of social support has been understudied by work-family researchers.

Child care as formal and informal social support

We argue that research on formal and informal work and family support needs to include the child care provider as a regular social and instrumental support source, which should be studied increasingly in mainstream management, work-family, and occupational health studies. Finding providers who have characteristics that engender higher quality child care, and with whom one can foster high-quality child care provider relationships, is a critical challenge for any working parent – and this study suggests it is important for a mothers' well-being.

New measures of caregiving relationship quality

We developed a new measure of the quality of provider-parent relationship, which included items such as trust between provider and parent, as indicators of perceived child care quality. We hope this measure can be utilized and further validated in future studies. The literature suggests new measures, such as the one we developed, based on caregiver perceptions are needed. Porter and her colleagues (2003) argue that the relationship between parents and caregivers in FFN care is quite different than the relationship between parents and licensed teachers or family day care providers. Many important aspects of provider-parent relationships are not observed easily by outside experts (Porter *et al.*, 2003), yet this method reflects how most child care quality assessments are done. Some new instruments similar to ours are being developed asking questions of key stakeholders – the parents and providers – on such issues as the congruence on child rearing practices, shared understanding of the role the child plays in each others' lives, and mutual interest in the child's well-being, as well as the role of the provider in the life of the parent and the child outside of the child care (Porter *et al.*, 2003, p. 35).

Adapting child care quality measures to FFN settings

The Federal Child Care Bureau of the US Department of Labour recently identified FFN care as a future research priority (ACE, 2004). While research suggests the availability and use of quality child care is associated with better child outcomes (NICHD, 2000), more research is needed to further clarify what good parent-provider caregiving processes in an FFN setting look like. Although FFN care is increasingly being publically subsidized to boost availability, critics note that a shortcoming of the growing subsidy system is its emphasis on assisting low-income parents with obtaining access to the child care market, instead of improving the quality of the child care experiences (Adams & Rohacek, 2002).

Our results show that many (but not all) of the same quality facets that have been identified as being important in licensed care are important in FFN care; they just vary in how the constructs are enacted or the type of measure that matters. The most robust quality findings were that provider education and lower intention to turnover significantly predicted lower use of physical discipline. Providers with depressive symptoms also were less likely to read to children-critical for language development. Income received from the child care was only marginally significantly related to provider reports of quality; while intention to turnover did predict higher quality in

mother-provider relationships. The weaker results for income were because familial status was significantly correlated with pay ($r = -.27, p < .05$). That is, providers who were relatives of mothers in our sample were paid relatively less than non-relatives. Intrinsic rewards from caregiving for one's family may be augmented with traditional financial rewards. Also, the income earned is still so low from child care that the subsidies may need to be increased to a higher level attachment effect.

We also found some important areas of divergence from the traditional quality literature for each facet. While educational level was significant for discipline use, formal child care training was only marginally so. This finding fits with the FFN literature's reports from focus groups indicating that many FFN providers are more interested in attending networking events to interact with other providers in order to not feel isolated and socialize. They are less interested in attending formal child care training classes to learn about quality (Porter *et al.*, 2003). Thus, new socialization strategies are needed to upgrade child care knowledge and capability to provide quality care for FFN providers that may differ from those used with traditional licensed providers.

Policy implications

As Shay, Tran, Weinraub, and Harmon (2005) have argued, a conundrum exists in the child care literature. They note that policy makers have increasingly argued that low-income working parents – and not the government – should manage and choose the child care of their children. However, the type of care expert policy makers state is the highest quality probably is not easily accessible to this population. Given this gap, and the fact that the government is moving towards giving increasing subsidies to enable low-income parents' to have greater choice in selecting FFN care, it is important that we understand the important role of FFN care choices for mother well-being.

The most important finding of our study is that providers can and do provide social support to families. The higher the social support perceived through good provider caregiving relationships, the lower the mother's work-family conflict and depressive symptoms. Although in public policy debates, child care is often framed as anti-parent care, our study shows FFN care is a care form that can support families' well-being. While this is not a new finding-it is an underemphasized and underappreciated one. Public policy should take steps to help change public attitude about the benefits of good FFN care, the important role it plays. Greater public supports to help providers better support families would be a very important long term social contribution to the well-being of working parents, the caregivers, and the work-family system.

Policy research is also needed on the most effective interventions to help FFN providers better support families. Such research would move the field from individual-level explanations of child care problems and work and family behaviours to a more multi-level understanding of how the provider caregiving and family systems and the structure of employment in the organization interact to affect the well-being of employed mothers, providers, and children.

As Kossek, Huber-Yoder, Castellino, and Lerner (1997) found, two competing theoretical perspectives can be taken to understand child care systems and problems. An individual deficit perspective assumes that problems with low-income working mothers are due to some individual labour market or motivational shortcomings of working mothers. A social structural systems perspective (Bronfenbrenner, 1977) would see how the lack of an effective integration of a family provider caregiver system into an employment system, and a lack of understanding of this system as a critical social

support for working parents, may create social structural barriers to the effective labour market participation and work and family well-being of low-income workers'.

Interventions targeted for providers: Improvement in communication and service delivery

Given that such a large number of children in the US are in FFN child care settings, child care policies should provide incentives for child care providers to seek development to learn how to develop positive communication and relationships with parents. These initiatives often mirror family systems therapy interventions. Such initiatives would also bring providers together and could help with socialization of the field, and serve as a means to increase providers' commitment to their profession and the role and could reduce turnover. For example, one intervention project Sparking Connections, has sought to develop strategies to better enable FFN care to meet the needs of children and their working parents (Stahl *et al.*, 2002). Findings from this research (O'Donnell *et al.*, 2006) indicate that child care quality needs to be discussed more in terms of caregiver-child relationships, encouraging healthy development, caregiver-parent relationships, support for caregivers, and health and safety.

Organizational implications

At the employer level, most provide very limited child care support for low-income parents, and the support they do offer most often is focused on licensed child care. Employer child care policy seems to be largely disconnected from the current trend in public policy welfare reform to provide subsidies for FFN child care on which many providers chose to not report the income.

Employers could re-view their existing child care supports and consider how to increase their utility to FFN care users. For example, employers might sponsor workshops for FFN care providers and parents to help them develop tools to effectively communicate with and manage caregiving relationships, in order to enhance parent and provider well-being. Given a gradual eroding of direct employer support of child care especially FFN support for working parents, (Kossek & Distelberg, in press), strategies are needed to increase care quality. FFN should be included as an option in private employer child care support systems and employers should be more concerned about strategies to improve FFN care quality focused on the measures we identify in this study.

Study limitations

Despite the many strengths of this study, our research was limited to low-income mothers. Using samples across a variety of occupations with varying job demands and a variety of family structures (e.g. dual-earner, traditional) may help to further generalize our findings. For instance, this type of research can be further applied to additional populations, such as higher income parents and the providers that serve these populations, as well as low-income working fathers. While our study targeted an understudied population, that is, low-income families, future research could also be conducted on FFN care among different types of families. In this way, the moderating effects of income, marital status, and other important demographic characteristics could be integrated.

An important shortcoming of the study is we cannot assume causality between the relationships in our model given that all data were collected generally around the same time. As an example, it could be that providers high on depressive symptoms

have difficulty establishing high-quality relationships with mothers. Or alternatively, it is possible that low-quality relationships with mothers cause providers to develop depressive symptoms. Given this limitation, longitudinal research is needed as to assess these types of relationships over time and bolster the study's internal validity.

Future research

More research is needed on the quality of FFN child care arrangements using interdisciplinary non-same source data, linking providers and working mothers as part of a work-family ecological system. It is critical that research is conducted that includes data on the psychological and human capital and role attachment of the child care provider, and his/her perceptions of intended care quality processes.

Future research also should build on and continue to validate parental-provider relationship quality measures. These constructs should be examined in relation to the psychological well-being of working parents and caregivers. Research should assess the generalizability of our findings across diverse multicultural settings, particularly given beliefs about child rearing and the needs of children vary across cultures.

While our findings indicate that many (but not all) of our measures of child care quality were theoretically and practically relevant, research is also needed to develop improved measures of FFN quality assessed by parents and experts in order to augment our measures. Future occupational health and organizational research on work and family must include measures of the characteristics, relationships with, and quality of FFN child care providers and crossover dynamics as part of family and employment systems. Studies should also examine parental perceptions of quality processes and reciprocal relations on well-being of providers in the family system. Otherwise, we are ignoring a huge black box with critical implications for not only the well-being of parents, but most certainly the children who are the ultimate recipients of well-being and distress in these systems. Targeting future research and policy to increase recognition of the important social support that FFN providers provide to working parents is likely to enhance the well-being and health of many key stakeholders in the child care debate, working parents and their families, employers, and children who represent society's future workforce.

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