ASSESSING FAMILY STRENGTHS AND YOUTH BEHAVIOR: ANALYSES OF THREE NATIONAL DATA BASES ON CHILDREN AND FAMILIES

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ABSTRACT

In this paper, we examine the utility of national-level data to adequately assess positive family functioning, as well the utility of family strength constructs as predictors of adolescent behavior problems. Data are taken from the 1987 National Survey of Families and Households (NSFH), the 1986, 1988, and 1990 panels of the National Longitudinal Survey of Youth - Child Supplement (NLSY-CS), and Waves II and III of the National Survey of Children (NSC).

We assess family strengths via scales that measure communication, appreciation, family activities, extended social and family networks, parental discipline, and commitment to marriage and family. Principal components, correlation, and multivariate analyses are employed.

We find that the range of available family strength items in these databases is limited, but that the use of family strengths measures is promising. In general, 5 to 7 items are available for each summary measure. A few constructs are examined via single-items, while other constructs (i.e., positive communication styles in the NSFH) cannot be assessed at all. Alpha reliability of summary indices ranges between .42 and .84.

Results also suggest that measures of family processes predict to later behavior problems even after controlling for social and economic variables. Parent-child interaction, in particular, parent-child communication, can affect youth behavior over and above the influence of income, family structure, race, and parent education. The variance explained by family strength variables alone, however, is in general, quite modest.

Our data support including these types of constructs in large-scale national surveys, but suggest methodological work may be needed to develop better measures. Implications for future national data collection efforts and future research is discussed.

ASSESSING FAMILY STRENGTHS AND YOUTH BEHAVIOR: A COMPARISON OF THREE NATIONAL DATABASES ON CHILDREN AND FAMILIES

INTRODUCTION

Over the past 20 years dramatic changes have occurred in the United States and in the makeup of the American family. While two-parent families are still the norm, divorced, never-married single-parent families, step-families and cohabiting-parent families now represent a sizeable proportion of families with children. In 1989, single-parent households comprised about one-quarter of all family households with children (Bureau of the Census, 1992); one half of all children are expected to live in a single-parent family at some point during their childhood years (Bumpass and Rindfuss, 1979).

The changing face of America's families and shifts in the context of family life have prompted numerous discussions among researchers. policy makers, and the popular press about the impact of such changes on the well-being of children. Many researchers have empirically investigated the impact of different family situations on child and adolescent development (Simons, Beaman, Conger, and Chao, 1993; Bank, Forgatch, Patterson, and Fetrow. 1993; Jayakody, Chatters, and Taylor, 1993; Kurdek and Fine, 1993; Capaldi and Patterson, 1991; Dawson, 1991; Forehand, Thomas, Wierson, Brody, and Fauber, 1990). A few researchers have begun to investigate differences in family processes in order to learn more about how family life affects the development and the behavior of children (Capaldi and Patterson, 1991; Kurdek and Fine, 1993; Dishion, Patterson, Stoolmiller, and Skinner, 1991).

Despite these efforts, we still know relatively little about family processes and their impact on children. Research still tends to focus on what families cannot do or cannot provide for their children; respective family and health interventions tend to focus on family pathologies and problems, particularly among adolescents. We rarely concentrate on positive outcomes, or positive family functioning as a source for understanding behavior outcomes or instituting programmatic change. Among those studies that do focus on positive family characteristics, few employ representative samples, use a prospective study design, or broaden their focus to include a variety of behavior or developmental outcomes: few studies explore the diversity across different types of families, and investigate the resiliency among families that are exposed to difficult or potentially compromising situations.

In 1990, the Office of the Assistant Secretary for Planning and Evaluation. U.S. Department of Health and Human Services, convened a conference to examine research on successful families. Evidence from this conference and a review of the multidisciplinary literature suggest that successful families are characterized as cohesive, affectionate, mutually appreciative, and able to communicate with one another frequently and fruitfully (Krysan, Moore, and Zill, 1990); behavior is influenced by positive family characteristics, but that there is a clear need to test the utility of these constructs with randomly selected representative samples and longitudinal data.

Our study assesses the influence of positive family processes on youth behavior, among three nationally-representative samples of families and children. We explore sub-group differences in both the presence of positive family characteristics and the impact of these processes on youth outcomes.

Our project addresses three specific areas not traditionally explored in current research on families and youth. First, we explore the utility of available national-level data to operationalize family processes. Second, we focus, primarily, though not exclusively, on positive family characteristics rather than on maladaptive family behavior, and explore the utility of family strength constructs as predictors of adolescent behavior problems. Third, we use data from three nationally-representative samples, two of which employ a prospective study design.

DATA AND ANALYTIC STRATEGY

Data from the National Survey of Families and Households (NSFH), the National Longitudinal Survey of Youth. Child Supplement (NLSY-CS), and the National Survey of Children

(NSC) are analyzed. This paper summarizes selected findings from each of those analyses which have been described in separate papers (Brown, 1993; Morrison and Glei, 1993; Sugland, 1993).

<u>Data</u>

The National Survey of Families and Households (NSFH)

The NSFH is a large representative sample of U.S. Households in 1987. The total sample consists of 13,014 households. 2,300 of which contain adolescents between the ages of twelve and eighteen. In-person interviews were conducted with a randomly selected adult; this individual is the target respondent in the sub-sample analyzed for this project. Additional information was supplied by the spouse. A fairly rich array of family process data was obtained, such as parental involvement in youth organizations and time parents and children spend together, along with measures of child outcomes. However, no data were obtained directly from the adolescent, so only the parent perspective is available. Only the 1987 NSFH data were available for these analyses; our analyses in the NSFH, therefore, are cross-sectional. Data from the second wave of the NSFH, completed in 1992-1993, will be available in early 1994.

The National Longitudinal Survey of Youth - Child Supplement (NLSY-CS)

The NLSY-CS is a supplement of the National Longitudinal Survey of Youth (NLSY). It contains assessments of children born to the female respondents in the NLSY, beginning in 1986. Child development data, now available for 1986, 1988, and 1990, are linked with socioeconomic, family background, and marital history data reported by the NLSY respondents from 1979 through 1988. The NLSY-CS is a sample of children born to a cohort of females aged 21-28 in 1986, (i.e., relatively young mothers), and thus over-represents children born to young mothers. This is particularly true among the older children, all of whom were born when their mothers were still in their teen years. Consequently, the children in the sample tend to be disproportionately socio-economically disadvantaged.

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Since the NLSY data were originally collected to study the education and labor market experiences of a contemporary cohort of youth, the data set is rather limited in the availability of family process measures. The particular strength of this data base for the current analysis is the fact that the surveys are obtained every other year, permitting prospective analysis of the effects of family process measures on the behavior of children and adolescents. In addition, indicators of behavior problems were obtained from both the mother and from the child; since mothers may not be aware of all the activities of their adolescents, the availability of child reports represents a substantial asset for this data base. Child and family characteristics identified in 1986 and 1988 are used to predict to child behavior outcomes in 1990. While full analyses have been conducted on children in two age groups -- 6 to 9 and 10 to 14 (Morrison and Glei, 1993)-- in this paper, we present data for children between 10 and 14.

The National Survey of Children (NSC)

The NSC is a nationally representative household survey of children who were aged 7-11 and living in the contiguous United States in 1976. Three waves of the NSC have been conducted. The first wave, in 1976 when the children were 7-11, the second in 1981 when they were 11-16, and the third in 1987 when they were 18-22. Wave I was designed to broadly assess the social, physical, and psychological characteristics of U.S. children. Wave II was designed to examine the consequences of marital disruption for children's development and well-being. Wave III focussed on the impact of early pregnancy and parenthood on the lives of teenage parents. In each wave, both the parent and the child were interviewed, and in the first two waves a teacher was also interviewed. For waves II and III a sub-sample of children whose families have experienced a marital disruption since 1976, or who were living in high conflict families in 1976 were reinterviewed. A sub-sample of children living in two-parent families with low or medium conflict in 1976 were also reinterviewed. Although the purpose of the NSC was not to assess family processes per se, it is quite rich in family process

measures. For the analyses reported here, baseline demographic and family strengths measures were taken from the second wave of data collection, and youth outcome measures were taken from the third interview. The sample is limited to only whites and blacks, and to cases in which the youth's mother served as the adult parent respondent¹

None of the three databases explicitly includes measures intended to tap "family strengths" constructs. However, we were able to develop measures that approximate positive family processes. Our efforts are guided by the work previously conducted by Krysan, Moore, and Zill (1990) and Zill and Rhoads (1990), which provide an overview of constructs and measures that identify successful families. While a wide range of constructs were developed and assessed for each data base, in this paper we describe and present results for those measures or constructs that are relatively common in at least two of the three data bases. We say "relatively common", because we were not able to create identical scales for each construct in each data base, as identical questions across data bases were not available. The NLSY-CS and the NSC do contain common measures for parent-child communication, appreciation, and a summary measure of behavior problems, however. Details of the full analyses for each data set and the entire set of family strengths constructs used in the three separate analyses are available (see Brown (1993); Morrison and Glei (1993) and; Sugland (1993)).

Variables used to measure family strengths and youth behavior problems in this paper are described in Table 1. Appendix A summarizes the general availability of family strengths measures across the three databases. For this effort, we select measures that represent common or at least similar family strengths and youth behavior constructs in the three data sets. Items appear to represent three potentially distinct domains of family processes. The first domain focuses on interactions between the adult respondent and the child. Items in this domain, for example, tap

¹Fathers as adult respondents make up less than 10% of the adult respondent sample. To limit confounding due to differences in mother/father reports or to exclude children single-parent families where father reports are not available, the NSC sample is limited to mothers.

parent-child communication, appreciation, and time-together or family activities. Our scales include questions that measure the amount of communication between parent(s) and children, the amount of praise and affection children receive from parent(s) for positive behavior and accomplishments, and how often parents and children spend time doing certain activities together.

The second domain revolves around the adult respondent and his/her feelings about marriage and family and availability and use of social networks. Items in this second conceptual realm measure the adult respondent's beliefs about the longevity of marriage, and the importance of marital fidelity.

The third domain measures parental discipline and harsh punishment. These constructs are not included in the family strengths literature explicitly, but other studies have found this domain to be important for child outcomes (Baumrind, 1971; Maccoby & Martin, 1983). Items for the third construct include parent's attitude toward harsh punishment and use of harsh discipline.

To measure youth behavior problems, we select two outcome measures from each data base. In the NSFH, we use a summary measure of behavior problems comprised of difficult behavior and personality characteristics, such as a child who is irritable or sad, fearful, and bullies (Behavioral Problems I), and a measure of more serious behavior problems, such as being suspended/expelled, running away, or in trouble with the police (Behavioral Problems II).

In the NLSY-CS, we also explore a summary measure of behavioral problems, the Behavioral Problems Index (BPI), reported by the adult respondent. Developed by Zill and Peterson (Zill, 1990), from prior indices, the BPI measures acting out behaviors, depressed and withdrawn behaviors, as well as distractable/hyperactive behavior.

We examine the relationship between family strengths and child reported behavior problems in the NLSY-CS as well. Our measure of child-reported behavior includes the number of times youth stayed out later than instructed, hurt someone badly enough to require medical attention, lied to parent(s), stole something or skipped school.

In the NSC, we examine the same BPI measure included in the NLSY-CS and a youthreported scale measuring delinquent behaviors in the previous 12 months.

Analytic Strategy

As previously mentioned, we employ a prospective design with the NLSY-CS and the NSC data, and take a cross-sectional approach with data from the NSFH. We assess the utility of large-scale survey day to assess family processes via principal components analysis and alpha reliabilities; we assess the appropriateness of family strengths constructs for families with children for varied subgroups using mean distributions of family strengths; we examine the association of family strengths with children's behavior with product moment correlations and multiple regression analyses. In the NLSY-CS, we examine racial, gender, and family type subgroup differences in the presence of family strengths; in the NSC, we explore racial and family type subgroup differences; in the NSFH family type subgroup differences are examined. In all data sets, we control for socioeconomic factors such as parental education, income, family type and size, and the influence of other family life situations such as marital disruption.

Three specific research areas are addressed by our work:

- What is the utility of national-level data to adequately assess measures of family processes? Are relevant measures available? Do available measures have reasonable psychometric properties?
- What is the appropriateness of family strengths constructs for varied sub-groups (e.g., single and two-parent families, blacks and whites, boys and girls)? Are there any robust measures for these varied sub-groups?
- Are family strengths associated with positive outcomes for children? Which strengths are more strongly correlated with problem behavior among children and adolescents? Do family strengths predict to child outcomes across varied population sub-groups? Do these associations hold even after controlling for other social and economic family characteristics?

RESULTS

What is the utility of national-level data to adequately assess measures of family processes?

Our first step is to explore the feasibility of creating measures of family strengths in the NSFH. NLSY-CS, and the NSC. We assess whether any relevant items are available from which to create summary measures, as well as the item variability and reliability of created indexes.

In describing the selected family strengths items in Table 1, we note, in some instances there are no or insufficient relevant items with which to create specific family strengths constructs. For example, the NSFH has insufficient measures for positive communication, appreciation, or parental discipline to produce reliable scales. The NLSY-CS does not contain items relating to commitment to marriage and family. Even among measures that are present, there are difference in the range of items and the breadth of the constructs they are able to measure. For instance, the NSC measures the extent of social networks via a summary item that includes the frequency of parental contact with friends and the number of close friends in near geographic proximity. In the NSFH, social networks can be measured by the total number of adult kin outside the household with whom the respondent is very close emotionally, the item we explore in this paper. The NSFH also contains measures for the total number of family members living near the respondent, and the number of days per year the adult respondent socializes in the evening with friends, neighbors, or co-workers. The NLSY-CS contains one question about the frequency of family visits with friends or relatives. Thus, the possibility for creating a more comprehensive measure of social networks is somewhat greater in the NSFH than in the NSC or NLSY-CS, and is most limited in the NLSY-CS.

Although the range of items is somewhat narrow in the three data bases, we are nonetheless. interested in the psychometric properties of the available items. Table 2 summarizes the psychometric properties of the family strengths indicators for all three data bases. The items making up each index are entered into a principal components analysis, a form of factor analysis. Only *multiple-item indices* were factor analyzed. We use the following criteria to assess the psychometric properties of our measures:

a) there should be only one factor extracted, or, if there is more than one, the first factor should explain a large proportion of the variance in the items (around 40 percent or more);b) subsequent factors should explain fairly equal proportions of the remaining variance;

c) all or most of the items should have substantial loadings (.30 or more) on the first factor:

d) all or most of the items should have higher loadings on the first factor than on subsequent components (Carmines and Zeller, 1979);

e) items should demonstrate a Cronbach's alpha of .60 or more.

Based on the above criteria, it is evident that many of our family process measures do not have satisfactory psychometric properties. In the NSFH, two of the three items have reliabilities of .60 or more, these include family activities and social networks. However, while the reliability of the social networks measure is .60, factor analyses produces four factors. The first factor does explain close to 40% with remaining factors explaining less variance. In the NLSY-CS, only two of the four constructs, that we report here, demonstrate satisfactory properties. These are interviewer-evaluated parent-child communication and appreciation. Both of these produce only a single factor on which all of the items load at least .30, and all have quite acceptable levels of reliability, .75 and .84, respectively.

We note that the NSC has the greatest number of family process items. but the psychometric properties of these items are relatively weak. Three of the six constructs have reliabilities of .60 or more -- parent-child communication. appreciation. and parental discipline. Only one of these measures, parent-child communication, produces a single factor. While the reliability of the remaining two are acceptable at .75 and .71, they both produce three factors. In each case, the first factor explains less than 40 percent of the variance in the items.

While none of these three data bases (nor any other nationally representative data base of

which we are aware) explicitly includes measures intended to tap "family strengths" constructs, we were able to develop measures that assess many of the family strengths measures with reasonable reliability. However, in most cases, only a few items are available to construct scales. reducing scale reliability, and some constructs could not be assessed at all. This is particularly true of the NLSY-CS. These analyses clearly indicate that while good measures are available in these three data sets. more relevant items are needed to construct better summary measures of family processes.

What is the appropriateness of family strengths constructs for varied sub-groups?

Next we explore the presence of family strengths separately by sample sub-groups, and examine the appropriateness of these measures for various sub-groups. Tables 3 and 4 summarize the mean values for family strengths indices from all three data sets by family type and race/ethnicity respectively. In general, there are few substantial differences in the distributions of mean scores on indicators of family strengths across family type. This suggests that family strengths are common among all types of families, irrespective of family structure or race/ethnicity. The differences that are notable occur primarily among white families and two-parent families, with family strength characteristics showing a more positive ranking. For example, in both the NSFH and the NSC, two-parent families have higher scores on the social network indices than single-parent families. Parent-child communication is slightly higher among white families than black families in the NSC, and somewhat higher among whites than non-whites in the NLSY-CS.

We note, again, that while these differences emerge, they are minimal and, in general, not statistically significant. Given the substantial differences in socioeconomic status across the family sub-groups, the relatively minimal differences found in measures of family process is potentially important. It may reflect common processes across families unrelated to income, race, or family structure. In the case of the NLSY-CS, however, it may reflect the disadvantaged nature of the sample, with less variation than found in a truly heterogenous national sample. However, it may also reflect the limited nature of the measures we employed and a reliance on overly global measures that cannot tap sub-group differences.

Do the family strength variables predict to behavior problems among children?

Bivariate Analyses

The most central question for these analyses is whether family strengths affect the incidence of problem behaviors in children and youth. We first explore this question using correlational analyses presented in Table 5, controlling for family type. Correlational analyses do indeed indicate that the presence of varied family strengths is associated with fewer behavior problems among children and youth almost without exception, irrespective of family structure. For example, strong parent-child communication, appreciation, and joint activities, are all found to be associated with fewer subsequent behavior problems among young adults in the NSC across all family types. Similarly, in the NLSY-CS, measures of appreciation, communication, and social networks all predict to fewer subsequent behavior problems among school-aged children. The magnitude and level of significance of the associations varies, and sometimes associations are not statistically significant; but the direction of the effect rarely goes opposite to prediction. That is, the data virtually never suggest that the presence of family strengths is correlated with the more frequent occurrence of behavior problems. Measures of harsh or strong punishment, on the other hand, do predict to later problems.

Table 6 and 7 summarizes correlations of family strengths with behavior problems by race and gender of the child respondent for the NLSY-CS and the NSC. Family strengths show positive effects on child behavior for whites, non-whites, and males and females as well. The magnitude and level of significance of the associations are often modest, however. The patterns for males and females are similar among the 10 to 14 year olds in the NLSY-CS, although the association between communication, appreciation and both the parent and child reported behavior outcomes appear to be stronger for females than males; the relationship between social networks and behavior outcomes is opposite for males and females.

Similar patterns of statistically significant associations between family strengths and child outcomes are observed among white and nonwhite 10 to 14 year olds in the NLSY-CS. Although the relationship between BPI scores and the appreciation and parental discipline measures work in opposite direction for the two groups.

In NSC, parent-child communication is also associated with fewer behavior problems for both males and females, although its appears to be more strongly associated with measures of delinquency among males, and the BPI among females. Appreciation is most strongly associated with behavior outcomes for females. Strong punishment is associated with more negative behaviors for both males and females in the NSC.

These correlations provide clear evidence that family strengths are predictive of child outcomes. Measures of internal family functioning, parent-child communication, appreciation, strong punishment are more predictive of outcomes than external measures, such as social networks. These patterns are consistent for family subgroups as well as across the three data bases. However, the evidence presented does not address the very important question of whether these correlations remain when family background differences are taken into account. Multivariate analyses are therefore conducted on each of the data bases to address this question.

Multivariate Analyses

We employ ordinary least squares regression to predict child behaviors. In our models, we control for family type, gender and age of the child respondent, sex and age of the adult respondent (NSFH and NLSY-CS), race/ethnicity of child, parental education, family income, family size or number of siblings, prior child behaviors or characteristics (e.g., low birthweight, previous measures of the BPI, handicapping conditions), and respondent-partner measures (e.g., marital conflict, parental depression).

Table 8 summarizes the results from the final regression analyses for the selected behavior outcomes across all three data sets. Rather than presenting regression coefficients for the full models across each data set, we describe the influence of family strengths on the selected outcomes we presented. In Table 8, a "0" indicates that no significant association is observed at the $p \le 0.05$ level, while a "-" indicates a negative influence on behavior problems (i.e., family strengths leads to more negative behavior problems); a "+" indicates a positive influence on behavior problems (i.e., family strengths leads to fewer negative behaviors); "na" indicates the variable was not included in the final regression model.

A review of table 8 suggests that controlling for socioeconomic variables, such as parental education, income, race, and family structure, tends to diminish but not erase the effects of family process variables. In the NSC, parent-child communication demonstrates a significant influence on the two youth outcomes examined, leading to lower scores on the BPI and fewer delinquent behaviors. Commitment to family reduces delinquent behavior, but has not significant influence on BPI scores. The remaining family strength measures, appreciation, family activities or measures of social networks, do not predict to either of the behavior problem measures in multivariate models in the NSC.

In the NLSY-CS, the family strength measures have little effect on child outcomes once socioeconomic variables are controlled. In fact, none of the family strength measures consistently affects children's behavior, though appreciation is associated with fewer child-reported behavior problems. The lack of effects of family strengths on child outcomes in the NLSY-CS may reflect the paucity of strong measures of family processes or the limited variability found in the disadvantaged sample of NLSY-CS mothers with school-age children. Since a goal of examining family strengths, however, is to identify family processes that represent a positive resource for families regardless of their socioeconomic assets, the minimal effects in this sample are important to recognize.

In the NSFH, the variables found to be the most important were those that tap the internal family processes, including parent-child time together and parental commitment to the family. The availability of social networks was not found to predict directly to child outcomes in the multivariate models.

The parental discipline measure we present is not technically a part of the family strengths tradition, but represents a construct that has nevertheless been found in other studies to affect children's development. This measure was included in the multivariate models both as a control variable and as substantive variable, to explore the expectation that the family strengths measures did not fully tap all dimensions of family functioning. We included parental discipline along with measures of marital conflict, parental depression and marital disruption. These measures were included along with socioeconomic controls and were found to have some negative effects on children's development, net of background factors and other measures of family strengths. For example, in the NLSY-CS, though family strength variables were not significant in multivariate analyses, the use of strong punishment (spanking) by the parent to discipline their school-aged child did predict to subsequent behavior problems. Strong punishment was shown to increase negative behaviors in youth in the NSC as well. In the NSFH, both parental depression and marital conflict were associated with higher scores on the index for Behavioral Problems I.

Although we control for other family and background characteristics in our final regression models, one potential problem is that many of the family strengths measures as operationalized in these data bases may be confounded with family structure. For example, child-related activities and communication may be affected by the number of adults present in the family and their relationship to the child. Moreover, membership in particular family structure categories, such as single parent families, is correlated with attributes such as low parental education and low income. Thus, it is possible that the influence of family characteristics is a result of group membership. To examine the possibility that such selectivity factors were distorting the multivariate results, models were estimated on NLSY-CS data employing selection models (Maddala, 1983) that take both observable and unobservable differences between the groups into account. First a probit model was estimated predicting membership in a continuously married family compared to membership in any other family type. The Inverse Mills Ratio derived from this estimation, the hazard instrument, was then included in the multivariate equation. Results from this equation are found to be about the same as the estimates without controlling for selectivity, both in terms of magnitude and statistical significance. Hence, sample selectivity was not found to be a significant problem for these analyses.

DISCUSSION AND CONCLUSIONS

Overall, the results from these analyses suggest that including measures of family processes. such as family strengths constructs, in large-scale national surveys is promising. Measures of family strengths predict to later behavior problems even after controlling for social and economic variables. Results suggest that parent-child interaction in particular (such as parent-child communication) can affect children's behavior over and above the influence of income, family structure, race, and parent education. Moreover, family process measures seem to be important within sub-groups defined by family structure and race, as well as in the total sample.

The variance explained by family strength variables, however, is generally modest, particularly in the NLSY-CS and the NSC. In the NSFH, family strengths measures explained as much of the variance as other sociodemographic characteristics. The total variance explained by the full models. however, was still quite modest (between 10 and 12 percent).

Several factors may explain the minimal associations found here. One primary reason probably reflects the lack of a theoretical or conceptual framework for the family strengths measures. The constructs we employ were developed and refined by researchers and practitioners who tended to first identify successful families and then to identify the characteristics of those families. This process yielded an intuitively meaningful set of family strengths in need of theoretical linkage with the child development and family sociology literatures. A stronger linkage between the insights afforded by the successful families literature and the theoretical perspectives of these other traditions (i.e., child development research, and research on resilience or invulnerable youth) would help to put family strengths constructs within a single, coherent theoretical framework. For example, the resilience literature identifies "social capital" --encouragement and investment in the development of children's human capital-- as an important factor in minimizing disadvantage (Coleman, 1988: Luthar, 1991; Parcel and Menaghan, 1993; Sugland and Hyatt, (in preparation); Sugland, Blumenthal, and Hyatt, (in preparation)).

A stronger theoretical approach would also inform hypotheses regarding which family strengths are important as direct effects and which function indirectly. For example, the effect of religion on children may be transmitted indirectly through family structure or commitment to marriage, or it may function as a direct effect on the child's own standards and values. In addition, it would help discern which family strength constructs. if any, are redundant. For example, are parent-child activities, family religious activities, and religiosity multiple and discrete constructs, or do they overlap in part. Similarly, some variables may be important primarily in interaction with other variables. Thus, the importance of extended kin may be manifest primarily among single parent families, where they play an essential role supporting the childrearing efforts of that single parent. Clear theoretical arguments indicating the mediating mechanisms between constructs and child outcomes are needed.

Apart from insufficient theoretical development, the family strengths constructs lack adequate measurement in existing national surveys. Indeed, this critique would have to be extended more generally to measures of family processes in current national surveys. Relatively few resources have

been devoted to developing scales appropriate for survey administration. Entire constructs are often measured with a single item. The validity of items and scales and entire constructs in different subpopulations has not been assessed. The role of the extended family and religious institutions, for example, may be quite different in black and single parent families than in white or two biological parent families. Similarly, communication within the family requires different measures when there is one parent than when there are two, and the significance of social connectedness seems to differ across family types. However, the number of such instances is fairly modest: in general, the various family strengths do seem to be relevant to most family types. To understand the role of family processes apart from family socioeconomic resources will require an investment in measure development.

One methodological issue to which the answer appears clear is the need for multiple respondents. In particular, obtaining the perspective of the child or youth on family processes and on their own behavior seems to be important. Family strengths, as reported by the child-respondent. were more predictive of child outcomes reported by the child respondent than the adult respondent.

Ultimately, the value of these analyses is that they have systematically taken promising constructs developed in one literature and examined them with stringent multivariate methods. This interplay across disciplines and methods can enhance our understanding of the processes that underlie child and adolescent development much more rapidly than if narrow specialties work in isolation. These analyses indicate that most of the family strength constructs do affect the development of children and adolescents net of socioeconomic variables across varied social groups. At the same time, they indicate a need for theory-driven measures, more reliable survey items, scale items that are appropriate within varied cultural groups and within different family structures, and variables that assess the critical mediating processes that connect parental inputs with child outcomes.

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| | DESCI | RIPTION OF SELECTED SURVEY I | TEMS |
|----------------------------------|---|--|---|
| Family Strengths Characteristics | NSETI | NUSY (S | NSC |
| Parent Child Communication | Appropriate items not available | 4 item index from 0.4; Measures the amount and type of communication between parent and child as observed by the interviewer during the 1988 interview. (Interviewer Report, 1988) | Sitem index from 0-12; Measures how frequently parent(s) talk over important decisions with child, how much say child has in making up rules; (Child report - 1981) |
| Appreciation | Insufficient items to create a reliable index | 3-jtem index from 0.12; measures the number of times mother shows child physical affection; praises child for doing something worthwhile; told another adult something positive about child (Mother report - 1988) | 8 item index from 0-8; measures the amount of praise and physical affection received for accomplishments or positive behavior; how often parent tells child (s)he is pleased with child; how often parent hugs or kisses child; (Child report - 1981) |
| Family Activities/Time Together | o item index from 4-38; measures the number of times past week at meals with child; frequency of leisure activities outside the home, frequency of private talks, playing together, helping with reading or homework (Parent report, 1987) | 7 item index from 0.7; measures how often gone to movies, out to dinner, shopping or family outing; frequency of playing together, building something, working on school work together. (Child report, 1988) | 7-item index from 0.7; frequency of joint parent-child activities in the past month such as going to movies, out to dinner, playing together, doing school work together. |
| Commitment to Marriage/Family | 3 item index from 1.5; how much adult agrees with: it is hetter to be neurried than single: marriage is for fife; hetter to have a child than by childless. (Parent report, 1987) | Appropriate items not available | 5-item index from 0.20; measures mother's belief about longevity of marriage, importance of marital fidelity, intimacy, and honesty within marriage (Patent report, 1981) |

Table 1. Description of Family Strengths Characteristics and Child Outcomes in the NSFIE (1987), the NESY-CS (1988), and the NSC (1981)

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| DESCRIPTION OF SELECTED SURVEY TIEMS | | | | | | |
|---|--|---|---|--|--|--|
| Family Strengths Characteristics | NSFH | NESY (S | NSC | | | |
| Extended Social Networks | 9 item index; measures the number of adult extended family with whom respondent is very close emotionally | Single item from 0-4; how often whole family gets together with relatives or friends (Child report, 1988) | S-item index from 0-15; measures frequency of parents' contact with friends and relatives; # of close friends within an hour's drive; frequency of contact with close friends. (Parent report, 1981). | | | |
| Parenual Discipline | Appropriate items not available | 4-item index from 0-4; parent's response to how they would hypothetically discipline a child that swears or is disrespectful; how to discipline their child if (s)he brought home poor grades. (Parent report, 1988) | 8-item index from 0-12; measures extent to which parent uses strong or abusive punishment; makes fun or threatens to slap or spank child; child ever been physically harmed by parental punishment. (Child report, 1981). | | | |
| Chikl Behavior Outcomes | | | ···· | | | |
| Behavioral Problems Index | 7 item index from 7 21; measures how often child is: irritable or sad, loses temper, is cheerful, is fearful, bullies other children, does what (s)he is asked, gets along with other children. (Parent report, 1987) | A 28-item scale; measures some of the more common behavior syndromes in young people (e.g, "acting out", distractable behavior, hyperactive behavior, depressed- withdrawn behavior); (Parent report, 1988). | 17 item scale from 0.17; includes extent to which child cheats/lies, has a hard time concentrating, has strong temper, is eracl or mean to others, feels worthless. (Parent report - 1987) | | | |
| Index of Definquent or Trouble Behavior | 5-item index from 0.5;measures whether child, since age 12, has ever been suspended/expelled from school since age 12; ever run away; ever in trouble with police; measures whether child has seen doctor for emotional problems, or met with teacher/principal re:child's problem behavior in past year. (Parent report, 1987). | 9-item index; measures number of times in last year that youth: stayed out later than his/her parents said they should; hurt someone badly enough to require medical assistance; stole something or damaged school property; brought parent(s) to school because of something (s)he did wrong; skipped school; stayed out at least one night without permission (Child report, 10-14 yr olds, 1988). | H-item scale from 0-23; ateasures how often in past 12 months child damaged or destroyed property, carried hidden weapon, stole or tried to steal a motor vehicle, sold drugs, or stopped or questioned by police 3+ times for doing something wrong. (Child report, 1987) | | | |

Table 1. Description of Family Strengths Characteristics and Child Outcomes in the NSFH (1987), the NESY CS (1988), and the NSC (1981)

Table 2: Psychometric Properties of Family Strengths Indicators Among Children 12 48 (NSFII), 10 to 14 (HLSY-CS), and 11 to 16 (NSC).

NSFI

| Narm | 446 | | | 2. of Tot Varianou | # of Commonant |
|---|-----------------------------------|-----------------------------|----------------------------------|---|---|
| | # of Component <u>Items</u> | Alpha <u>Reliability</u> | # of Factors <u>Extracted</u> | Accounted for by Each Factor | Items with Highest |
| Measures | - | | | | |
| Parent-Child Communic. | | | -** | | |
| Appreciation | | | ***** | · | |
| Family Activities | . 6 | .72 | I | not available | 6 |
| Parental Discipline | | | | | |
| Commitment to Mart/Fam | 3 | .54 | 1 | not available | 3 |
| Social Networks | 9 | .60 | 4 | not available | 4 |
| NLSY-CS | # of Component <u>Items</u> | Alpha <u>Reliability</u> | # of Factors <u>Extracted</u> | % of Tot Variance Accounted for by <u>Each Factor</u> | # of Component Items with Highest Loading on 1st Factor |
| Measures | | | | | |
| Interviewer reported | | 76 | 1 | 57 702 | MA |
| Parent-Child Communic. | 4 | .75 | 1 | 75.0% | NA |
| Appreciation | 3 | .04 | 1 | 07977 2798 1598 | 1925 6 of 7 |
| Family Activities | , | | 2 | 27.270, 13.270 | |
| Parental Discipline | 4 | -44 | I | 56.470 | 100 |
| Commitment to Marr/Pam Social Networks | 1 | NA | NA | NA | NA |
| NSC | # of | | | % of Tot Variance | # of Component |
| | Component | Alpha | # of Factors | Accounted for by | Items with Highest |
| | Items | Reliability | Extracted | Each Factor | Loading on 1st Factor |
| Measures | | | | | |
| Parent-Child Communic. | 5 | .61 | 1 | 39% | NA |
| Appreciation | 8 | .75 | 3 | 37%, 15%, 13% | 6 of 8 |
| Family Activities | 7 | .53 | 2 | 26%, 17% | 5 of 7 |
| Parental Discipline | 8 | .71 | 3 | 33%, 17%, 13% | 6 of 8 |
| Commitment to Marr/Fam | 5 | .50 | 1 | 33% | NA |
| Social Networks | 5 | .47 | 2 | 32%, 26% | 2 of 5 |

Source: Child Trends, Inc. Tabulations of the National Survey of Families and Households, 1987, the National Longitudinal Survey of Youth-Child Supplement, 1986, 1988, 1990 wave, and the National Survey of Children, Waves I and waves II (1981 and 1987).

Table 3: Mean Values for Family Strengths Indices Among Children 12-18 (NSFH), 10 to 14 (NLSY-CS), and 10 to 17 (NSC) by Family Type

| | | NSPH | | | NLSY-CS | | | NSC |
|--|---------------------------------------|------------------------------|-----------------------------|-------------------------|-----------------------------|-------------------|--------------------------------|---|
| Family Strengths Characteristics | Married Two- Biological Parents | Never-Married Female Head | Divorced/Sep Female Head | Continuously Married | Ever Separated/ Divorced | Never- Married | Two-Biological/ Step-Parent | Never Married, Ever Sep/Widow/Divorced |
| Parent-Child Communic. | | _ | | 3.5 | 3.2 | 3.5 | 7.2 | 7.1 |
| Appreciation | •••• | | | 6.4 | 5.9 | 4.8 | 6.0 | 6.2 |
| Activities | 22.08 | 23.72 | 23.07 | 3.4 | 3.5 | 3.4 | 3.2 | 3.0 |
| Parental Discipline | · | | | 2.2 | 2.3 | 2.3 | 1.4 | 1.4 |
| Commitment to Marriage & Family | 10.86 | 9.75 | 9.49 | | | | 16.5 | 15.3 |
| Social Networks | 4.05 | 3.63 | 3.09 | 2.5 | 2.6 | 2.5 | 9.4 | 7.5 |

Note: Table values are based on weighted data.

Source: Child Trends, Inc. tabulations of the National Survey of Pamilies and Households, 1987; the National Longitudinal Survey of Youth-Child Supplement, 1986, 1988, and 1990 waves and; the National Survey of Children, Waves II and III (1981 and 1987).

| | | NLSY-CS | | | NSC |
|-------------------------------------|--------|---------|-----------|--------------------------------|---|
| Family Strengths Characteristics | Whites | Blacks | Hispanics | Two-Biological/ Step-Parent | Never Married, Ever Sep/Widow/Divorced |
| Parent-Child Communic. | 3.4 | 3.0 | 3.3 | 7.3 | 6.9 |
| Appreciation | 6.7 | 4.4 | 5.2 | 6.1 | 5.8 |
| Activities | 3.5 | 3.4 | 3.5 | 3.2 | 2.8 |
| Parental Discipline | 2.2 | 2.5 | 2.2 | 1.4 | 1.4 |
| Commitment to Marriage & Family | | | | 16.4 | 15.3 |
| Social Networks | 2.5 | 2.6 | 2.5 | 9.2 | 7.9 |

Table 4: Mean Values for Family Strengths Indices Among Children 10 to 14 (NESY-CS) and 10 to 17 (NSC) by Race

Note: Table values are based on weighted data.

Source: Child Trends, Inc. tabulations of the National Survey of Families and Households, 1987; the National Longitudinal Survey of Youth-Child Supplement, 1986, 1988, and 1990 waves and; the National Survey of Children, Waves II and III (1981 and 1987).

Table 5: Correlations Between Behavior Problems and Family Strengths Indicators Among Children 42-18 (NSF11), 10 to 14 (NESY-CS) and 10 to 17 (NSC) by Family Type

| | NSF11 | | | | | | | NI SY (5' | | | | |
|-------------------------------------|----------------------|-------------------|-----------------------|-------------------|-------------------------|------------------|-------------------------|-------------------------------------|-------------------------|--------------------------------------|--------------------------|-------------------------------------|
| | Married T Parents | wo-Biological | Never Mai Female H | rried cad | Divorce/Se Female 11 | P cad | Continuou Marticu | sty | Ever Sepa Divorced | rated/ | Never-Ma | ried |
| Family Strengths Characteristics | Behav Prob. 1 | Behav Prob. 11 | Rehav Prob-1 | Behav Prob. IĮ | Behav Prob 1 | Behav Prob. H | DPT (Parent Rept) | Child Reptd Behavior Problems | BPI (Parent Rept) | Child Reptil Behavior Problems | lsi4 (Parent Rept) | Child Reptd Behavior Problems |
| Parent-Child Communication | | | | | | | .03 | 08 | - 10 [*] | .14" | .16* | .01 |
| Appreciation | | | | | | | .08* | 18 | .07 | 13** | 12 | 10 |
| Activities | (18 | J0 *** | .19 | .08 | -4 1 | | .40* | .02 | .117 | d1. | .43 | 14 |
| Parental Discipline | | | | - - - , | | | .m | .08 | .06 | - 01 | - 67 | .02 |
| Commitment to Marriage & Family | - (18)** | -,08 | .09 | 02 | 07 | 1.2 | | | . | | | |
| Social Networks | - 10 | 00 | .13 | - 10 | - 04 | 417*** | .08 | 04 | - 10 | .04 | - 13 | 20 |

- p < 0.01

" p < 0.05

p < 0.10

¹The number of cases on which correlations were based ranges from 193 to 247 (among continuously matried), 207 to 255 (among ever disrupted) and 72 to 103 (among never matried); Figures are based on weighted data. ² Case size ranges from 1890 to 1122.

Source: Child Trends, Inc. tabulations of the National Survey of Families and Households, 1987: the National Longitudinal Survey of Youth Child Supplement, 1980, 1988, and 1990 waves and; the National Survey of Children, Waves II and III (1981 and 1987).

Table 5: Correlations Between Behavior Problems and Family Strengths Indicators Among Children 12-18 (NSF11), 40 to 14 (NESY-CS) and 40 to 17 (NSC) by Family Type (Continued)

| | | | NSC? | | |
|-------------------------------------|---------------------------|----------------------------|--|----------------------------|--|
| | Two Itiolog Step Paren | gkal/ t | Never Married, Ever Separated, Widowed or Divorced | | |
| Family Strengths Characteristics | 1314 | Definquency past 12 nos | HPL | Delinquency past 12 mos | |
| Parent Child Communication | 12*** | | 18*** | 19*** | |
| Appreciation | .09 | 06* | 14" | - (18 | |
| Activities | -: 11 } | -01 | 06 | 83 | |
| Parental Discipline | .45 ^m | -45 | .29*** | .27 | |
| Commitment to Marriage & Family | -02 | - 3 K 5 | [6 | - 04 | |
| Social Networks | 06 | 83 | (H | .12* | |

⁻⁻ ρ < 0.01

p < 0.05

p < 0.10

The number of cases on which correlations were based ranges from 193 to 247 (among continuously married), 207 to 255 (among ever disrupted) and 72 to 103 (among never married); Figures are based on weighted data.

Case size ranges from 471 to 845 for Two Parent and 159 to 276 for Never married/widowed/separated/divorced families.

Source: Child Trends, Inc. tabulations of the National Survey of Families and Households, 1987; the National Longitudinal Survey of Youth Child Supplement, 1986, 1988, and 1990 waves and; the National Survey of Children, Waves II and HI (1981 and 1987).

Table 6: Correlations Between Behavior Problems and Family Strengths Indicators Among Children 10 to 14 (NESY-CS) and 10 to 17 (NSC), by Race

| | | | NESY-CS ¹ | ····· | I | NSC | | | |
|-------------------------------------|---------------------------|-------------------------------------|---------------------------|-------------------------------------|---------|----------------------------|---------|----------------------------|--|
| | Whites | | Non Whit | ťs | Whites | Whites | | | |
| Family Strengths Characteristics | BP1 (Parent Report) | Child Reptd Behavior Problems | BPI (Parent Report) | Child Reptd Behavior Problems | BPI | Delinquency past 12 mos | BPI | Delinquency past 12 mos | |
| Parent-Child Communication | 05 | (19* | 01 | 00 | 07** | | - 27*** | 14** | |
| Appreciation | .14*** | ~.U** | 13 ^{**} | - 15" | 05 | 06* | 17** | 05 | |
| Activities | .06 | .10** | 07 | 08 | 02 | .00 | 04 | 00 | |
| Parental Discipline | .09* | .02 | .12" | .01 | . 18*** | .17*** | .18*** | .21*** | |
| Commitment to Marriage & Family | | | | | 07 | 05 | 09 | 08 | |
| Social Networks | 02 | 02 | 02 | 11** | 02 | 02 | 12 | .05 | |

^{•••} μ < 0.01

p < 0.10

The number of cases on which correlations were based ranges from 234 to 348 (among whites) and 217 to 296 (among non-whites); figures are based on weighted data. Case size ranges from 299 to 885 for whites, and 130 to 235 for blacks.

Source: Child Trends, Inc. tabulations of the National Survey of Families and Households, 1987; the National Longitudinal Survey of Youth-Child Supplement, 1986, 1988, and 1990 waves and; the National Survey of Children, Waves II and III (1981 and 1987).

[&]quot; p < 0.05

Table 7: Correlations Between Behavior Problems and Family Strengths Indicators Among Children 10 to 14 (NLSY CS) and 10 to 17 (NSC), by Gender of Child Respondent

| | NESY4'5' | | | | | NSC ⁴ | | | |
|-------------------------------------|---------------------------|--------------------------------------|----------------------------|--------------------------------------|-------|----------------------------|---------|----------------------------|--|
| | Males | | Females | | Males | | Females | | |
| Family Strengths Characteristics | BPI (Parent Report) | Child Repfel Behavior Problems | 1314 (Parent Report) | Child Reptil Behavior Problems | BPA | Delinquency past 12 mos | BIA | Delinquency past 12 mos | |
| Parent-Child Communication | 04 | .02 | - 05 | 15 | - US | - 15*** | 21 | 07* | |
| Appreciation | .08* | | - 02 | 20 ^{***} | ·.01 | - 104 | .17 | · | |
| Activities | .02 | .407 | 02 | ·.(13 | 04 | -01 | . 05 | 03 | |
| Parental Discipline | .04 | 05 | 05 | .11" | .25** | .18*** | .13*** | . 19*** | |
| Commitment to Marriage & Family | | | | | 14*** | 04 | 04 | · 10 ^{**} | |
| Social Networks | 13 | -, lo*** | .09' | .0) | - 05 | .()+8 | 10" | .(15, | |

_ p < 0.01

p < 0.05

• p < 0.10

"The number of cases on which correlations were based ranges from 244 to 304 (among lemales) and 229 to 324 (among males); figures are based on weighted data. 'Case size ranges from 327 to 571 (among females) and 302 to 549 (among males).

Child Trends, Inc. tabulations of the National Survey of Families and Households, 1987; the National Longitudinal Survey of Youth Child Supplement, 1986, 1983, and 1990 waves and; the National Survey of Children, Source: Waves II and III (1981 and 1987).

| | NSFII | | NES | SY-CS | | NSC |
|-----------------------------------|------------------------|-------------------------|--------------------------|----------------------------------|--------------------------|---|
| bulependent Variables | Behavior Problems 1 | Behavior Problems II | BPI (Parent Reported) | Behav Problems (Child Report) | BPI (Parent Reported) | Delinquent Behavior (Child Reported) |
| Eamily Strengths | | | | | | |
| Communication | ึกอ | na | 0 | 0 | ÷. | 1 . |
| Appreciation | กล | na | 0 | ł | 0 | 0 |
| Family Activities | + | ł | na | na | υ | 0 |
| Commitment to Marriage/Family | 0 | 0 | na | na | 0 | + |
| Social Networks | 0 | 0 | 0 | 0 | 0 | 0 |
| Discipline measures | | · | | | | |
| Use of Strong Punishment | na | na | - - | - | | |
| Mother/Partner <u>Measures</u> | | | | | | |
| Parental Depression | - | 0 | na | na | na | na |
| Marital Conflict | - | 0 | - | 0 | na | na |
| Marital Disruption | na | na | na | na | 0 | 0 |
| Parent-Parent Communication | na | na | () | () | - | - |

Table 8: Summary of Results of Multiple Regression Analyses: Family Strengths, Background Characteristics, and Youth Behavior in the NSFII (1987), NESY-CS, (1986, 1988, and 1990), and the NSC (1981 and 1987)

Key: " $0^{"}$ = no statistically significant association, "+" is positive influence (i.e., an increase in family strengths characteristics leads to less negative behavior outcomes); "-" is a negative influence (i.e., an increase in the family characteristic leads to more negative behavior outcomes); "na"=variable not included in the final model. Statistical significance is at the $p \le 0.05$ level.

Note: Table values are based on weighted data.

Source: Child Trends, Inc. Tabulations of the National Survey of Families and Households, 1987; the National Longitudinal Survey of Youth-Child Supplement, 1986, 1988, and 1990 waves and; the National Survey of Children, Waves II and III (1981 and 1987).

| | NSFH - | NLSY-CS | NSC |
|---|--------------|--------------|--------------|
| Family Strengths Constructs | | | |
| Communication | | \checkmark | \checkmark |
| Encouragement of Individuals | | ~46 | |
| | \checkmark | | \checkmark |
| Commitment to Panniy | \checkmark | \checkmark | \checkmark |
| Religious Orientation/ Training/Attendance | 1 | , | , |
| Social Connectedness/Social Networks | v | v | v |
| Fomily Adoutability | | | \checkmark |
| Pamily Adaptability | | \checkmark | \checkmark |
| Expressing Appreciation | \checkmark | \checkmark | V |
| Clear Roles | , | 1 | , |
| Time Together/Family Activities | v | v | V |
| Other Family Process Constructs | | | |
| Strong Punishment/Spanking | -* | \checkmark | \checkmark |
| Mother-Partner Relationship Satisfaction | | \checkmark | \checkmark |
| Parental/Marital Contlict | √ | √ | |
| Parental Agreement about Child | | v | V |
| Parental Depression | \checkmark | √. | |

Appendix A: Availability of Family Strengths and Family Process Measures Across the NSFH. NLSY-CS, and the NSC.

Key: $\sqrt[n]{r} = (\text{amily strengths/family process variable}(s) are available.$