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with role stress and child gender predictive only among fathers low
in traditionality. Results are discussed and implications for future
research are presented. (37 references) (Author/RH)

Predicting Negative Discipline in Traditional Families:
A Multi-Dimensional Stress Model

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RUNNING HEAD: Predicting Negative Discipline

Abstract

This study attempts to integrate existing theories of family violence by introducing the concept of family role stress. Role stressors may be defined as factors inhibiting the enactment of family roles. Multiple regression analyses were performed on data from 190 families to test an hypothesis involving the prediction of negative discipline at different levels of traditionality based on levels of role stress and child gender. Results indicate that among highly traditional mothers, but not among mothers with moderate and low levels of traditionality, role stress and child gender do predict negative discipline. The oppos'.. pattern was obtained for fathers, with role stress and child gender predictive only among low traditionality fathers. Results are discussed and implications for future research are presented.

Over the past three decades, public interest in the broad domain of problems known as child abuse has grown dramatically. Physical and sexual maltreatment of children now receives regular attention in the media. The justice system and the mental health community are engaged in a struggle to find effective methods of intervention in violent families. Within the scientific community, across the domains of clinical and social psychology, sociology, psychiatry, and pediatric medicine, a great deal of effort has gone into uncovering the causes and correlates of domestic violence. The multi-disciplinary nature of the work has allowed for consideration of the problem from a broad perspective. Unfortunately, however, researchers in each area have seldom attempted to incorporate the ideas of those in other areas. As a result, a rather diffuse field has developed, consisting of a number of largely unrelated theories which focus on different aspects of abuse. Recently, some authors have recognized the need for integration within the field (Azar & Rohrbeck, 1986; Wolfe & Bourdeau, 1987; Greenwald, 1989a), but such work has only just begun to move from the theoretical to the empirical. The present study is an attempt to evaluate an integrated theory empirically.

Theories of Child Abuse

As recently as the 1950's, child abuse was not widely recognized as a problem in American society. In a landmark paper, Kempe and colleagues (Kempe, Silverman, Steele, Droegemueller, & Silver, 1962) introduced the term "battered child syndrome," and emphasized that the problem not only existed but was of epidemic proportions. Since that time, the body of theoretical literature on the causes of domestic violence has grown to be both extensive and diverse. Several authors (Parke & Collmer, 1975; Burgess, 1979; Starr, 1979; Wolfe, 1985; Greenwald, 1989b) have delineated three categories of theories, based on where violent actions are hypothesized to originate: psychiatric models, social-interactional models, and sociological models.

Perhaps because the perpetration of an act of physical violence upon an infant or child seems so brutal that "no one in his/her right mind could do such a thing," early theories sought to uncover the underlying psychopathology of abusers. A variety of hypotheses were developed to account for abusive behavior. These include the notion that abusers exhibit role reversal and respond with violence when their children fail to meet their needs (Johnson & Morse, 1968, cited in Parke & Collmer, 1975); that abusers have poor impulse control over aggressive tendencies (Spinetta & Rigler, 1972); and that abusers tend to be immature, self-centered, and domineering (Kempe et al., 1962; Johnson & Morse, 1968, cited in Parke & Collmer, 1975). These theories have been called into question for several reasons. First, subsequent research (Gelles, 1973; Parke & Collmer, 1975) has found that there is no greater incidence of diagnosed mental illness among abusive populations than among the general population. Additionally, research has failed to uncover a consistent set of personality traits among abusers that would lead to the classification of an "abusive

personality disorder" (Gelles, 1973).

While this evidence may make it appear as if the debate on the psychopathology of abusers is closed, several questions do remain unanswered. The above studies are consistent in the use of classification models to measure pathology or traits. This approach contains the implicit assumption that the characteristics under investigation are categorical and dichotomous (i.e. one either has them or does not). It may, in fact, be more appropriate to consider such characteristics continuous. Measures of depression or anti-social attitudes, for instance, might produce different results if measured along a continuum.

Whether or not psychological theories have been effectively evaluated, they do remain problematic; by postulating an intraindividual and psychopathological origin of violence, these theories suggest that it is necessary to look no further than the pathology to understand the problem. Professionals and others are therefore more likely to assign blame to individuals than they are to examine factors that might place any individual at risk for perpetrating abuse. The two other categories of theories-- social-interactional and sociological-- consider the individual within the context of the environment, and thus account for risk factors.

Sociological theories of family violence (cf. Straus, Gelles, & Steinmetz, 1980; Gelles, 1983; Justice, Calvert, & Justice, 1985; Straus & Kantor, 1987) focus on the environment of the abuser and suggest a number of factors which may lead to abuse. These include poverty or other socioeconomic stress, job-related stress, racial discrimination, poor living conditions such as overcrowding, and social acceptance of violence towards women and children among some subgroups in society. These factors have been described as operating through a frustration-aggression model (Gelles, 1983); that is, individuals who experience various sociological stressors are likely, especially if violence is accepted within their subculture, to act out their frustration by becoming violent. Since family members are often at hand, they are primary targets of the aggression.

Sociological theories have received support from studies documenting proportionately higher levels of stress in violent families than in non-violent families (Justice, Calvert, & Justice, 1985; Straus & Kantor, 1987). However, it is important to note these are correlational studies, and thus have limited bearing on discussions of cause. Furthermore, some authors have urged that caution be exercised in considering the role of social stress in family violence, lest inferences be made concerning predispositional tendencies towards violence among those of lower socioeconomic status.

Social-interactional theories focus on parent-child relationships in violent families. At the center of the social-interaction model (cf. Patterson, 1982; Reid & Patterson, 1989) is the notion that children arrive in the world with no sense of what constitutes socially appropriate

behavior. At the same time, children have a variety of means of getting their needs met at their disposal, some of which are highly aversive. Parents who fail to monitor their children sufficiently and who employ inconsistent or erratic discipline are likely to have difficulty controlling negative behavior. Children therefore learn that coercion is an effective way to get what they want. Parents similarly learn that one of the few ways to control the child is through coercion. A reciprocal process is thus initiated whereby parents and children essentially "train" each other to behave in a coercive manner.

Viewed within this framework, violence may be regarded as the far end of a continuum of coercive interaction. As coercive exchanges escalate, family members may shift from the use of language to the use of physical force. In such situations, parents greatly outmatch young children in terms of size and strength, and are therefore likely to cause harm.

The social-interactional model is well-grounded in empirical research. For instance, several studies have documented that among abusive mothers there is a higher rate of negative interaction and/or a decreased rate of positive interaction than among normal mothers (Burgess & Conger, 1978; Reid, Patterson, & Loeber, 1981; Reid, Taplin, & Loeber, 1982; Reid, 1986). Additional research has confirmed that poor monitoring and inept discipline among parents are present in families with conduct disordered children (Patterson, 1982). While research has not been conducted to determine whether these same factors are in operation in abusive families, it is likely they exist.

Of the three categories of theories discussed here, social-interactional theories may be viewed as the most flexible; although the model does not specifically include intra-individual or sociological factors, it leaves room for their inclusion. Depression, for instance, may simultaneously increase parental irritability and decrease monitoring. Thus, depressed parents might respond less well to coercive child behavior than non-depressed parents. As is noted in the following section, attention must be given to multi-dimensional processes such as these.

An Integrated Theory

In reviewing the empirical work on family violence, it becomes clear that what appear to be competing theories-- social-interactional and sociological-- are equally well supported. This is most likely because family violence is a complex process, one that operates at more than one level. Social interactional theories focus on microsocial processes within families, while sociological theories focus on the larger societal forces that act upon families; it may be the case that processes at both levels are at work in violent families. If family violence is to be better understood, it may be necessary to integrate these two models. Furthermore, since psychological stressors might interact with other role stressors, it would seem prudent to include them as well.

The notion that integrated theories are necessary to achieve a better understanding of domestic violence is present in the literature, although only relatively recently. Azar & Rohrbeck (1986) and Wolfe & Bourdeau (1987) have suggested that the problem should be studied by considering the individual within the context of the family, and the family within the cultural and economic context of society. One integrational theory of family violence does, in fact, exist. Termed the "ecological" or "systems" model (Belsky, 1980; Hamilton, Stiles, Melowsky, & Beal, 1987), it delineates a multi-level process involving the individual, the family, and society. Greenwald (1989a), however, has found fault with this theory on the grounds that while it does list factors that may contribute to violence within each level, it fails to define the processes that join the different levels together and as a whole produce abusive behavior.

It is indeed challenging to imagine an all-encompassing theory of domestic violence without describing an incredibly complex and esoteric process. One might imagine a vast array of factors at different levels with a web of causal arrows connecting the levels. Yet it is possible to describe a process that involves different levels and is at the same time relatively straightforward. The foundation for such a model lies in the concepts of family roles and family role stress.

Generally speaking, family roles may be defined as the system of beliefs governing an individual's behavior within a family. A man who ascribes to a traditional male family role, for instance, might consider himself to be responsible for the financial support of other family members and for the allotment and enforcement of punishment. He might be less likely to see himself as emotional resource within the family. In contrast, a man ascribing to a progressive family role might be more likely to consider himself and his spouse equally responsible for financial, emotional, and disciplinary contributions. One can hypothesize similar differences between traditional and progressive family roles for women, involving a greater emphasis on shared responsibilities within the progressive role.

Within the family violence literature, there is evidence that violent families are likely to have members who ascribe to traditional roles (cf. Star, 1980; Straus, Gelles, & Steinmetz, 1980). It has been suggested that the rigidity of these roles may be in part responsible, in that such rigidity may make it impossible for family members to compromise (Straus, Gelles, & Steinmetz, 1980; Straus & Kantor, 1987). Furthermore, the traditional male gender role, to which men identifying with the traditional family role might also be expected to ascribe, prescribes the use of violence to resolve conflict. Thus, the threat of violence may be ever-present in traditional families, and conflicts and problems would therefore be likely either to be left unresolved or to escalate.

While the notion that the single factor of traditionality may account for violence makes sense intuitively, it is also problematic. Clearly there are families in which traditional

roles prevail and yet there is no violence. It is therefore necessary to describe a mediational process in which traditional roles interact with other factors.

One can assume that within traditional families in which family members are able to act in accordance with the roles defined for themselves, there are relative few problems; the husband effectively handles financial and disciplinary matters and the wife is the source of nuturance. Perhaps, then, it is only within traditional families in which there is role stress (i.e. factors that prevent individuals from behaving as they think they should) that violence occurs.

As stated earlier, there is support in the literature for the notion that families under stress are more likely to be violent than those not under stress (Justice, Calvert, & Justice, 1985; Straus & Kantor, 1987). The authors of these studies have even suggested that stress should be considered in a mediational role with other factors. However, when stress is discussed, it is defined in either very narrow terms (e.g. financial difficulties) or in very vague terms. The concept of role stress presented here can, in contrast, occur at a number of levels, and therefore is able to be both broad and specific. An individual might experience role stress from within, either because of pathology or simply because the demands of a certain role exceeds his or her capabilities. Role stress also might arise from family interactions: Individuals may, as is described by the social interactional model, become involved in cyclical coercive processes and experience stress as a result of frequent fighting with other family members. Finally role stress might be the result of forces within the society: For example, a traditional man who expects to be able to support his family but cannot find a job would most likely experience sociological stress.

To summarize, it is hypothesized that the presence of traditional family role attitudes and simultaneously the existence of stress that inhibits the roles from being enacted predicts domestic violence. Role stress can arise from within the individual, the family, the larger society, or from any combination of these sources. Preliminary support for this hypothesis may be found in the demographic research of Straus and Kantor (1987), which found that among families under stress, belief in male dominance in family decision making was one of several factors that increased the likelihood of violence. The present research will help to answer the more general question of whether abuse is related to the inability to enact traditional roles.

Methodological Issues in the Study of Abuse

There is a great deal of discussion in the literature about the definition of child abuse. Some authors have argued that several criteria be taken into account, including the inter. the perpetrator, the extent of the injury, and cultural norms regarding the use of physical punishment (cf. Parke & Collmer, 1975; Smith, 1984). However, Straus & Gelles (1986)

suggest that since judgments about the severity of an act of aggression are always subjective, intent alone should be taken into account in determining whether abuse has occurred. Specifically, abuse should be defined as the use of physical force with the intent to causing physical pain or injury to another.

If one accepts that intent is primary in defining abuse, then it must also be primary in measuring abuse. This is problematic, however, in that a measure that asks parents how often they have used force against their children with the intention of hurting them is very likely to be subject to response biases. Simply speaking, the illegality of abuse in addition to the social stigma attached to it might well lead parents who know their actions have caused their children injury to not reveal such information. Additionally, most parents, even if they do punish their children in a way that hurts them, believe their actions are directed at correction or teaching. As a result, attempts to study abuse within a normative sample will yield few, if any, parents who can be classified as abusive using this definition.

Much of the family violence research has gotten around this problem by recruiting "known abusers" from child protective agencies and comparing them with those in the larger population who are "non-abusers." This method has the advantage of external validation of abusive behavior; however in her review of the abuse literature, Greenwald (1989a) notes that many of the studies that make use of child protective cases do not specify the nature of the abuse. To suggest that all abusers can be placed into a single category is questionable, given the variety of levels of violence reported in the media. In addition, given the differences in reporting statutes and agency resources from state to state, it is unclear whether the population from which these studies draw their subjects accurately represent the population of child abusers or whether it is reasonable to consider as abusers only those who get caught.

An alternative to the above approach is to define abuse as a continuous rather than a categorical variable. Such an approach leads away from the consideration of differences between abusive and non-abusive groups (essentially an analysis of variance design), groups which may or may not represent actual populations. Instead the focus becomes the prediction of abusive behavior along a continuum from low to high (essentially a regression design). One advantage of this approach is that it is not necessary to categorize individuals as abusive or non-abusive. Subjects may vary in their behavior from a total lack of discipline to the frequent use of physical force, a range that is more similar to the actual population of families than the dichotomous approach allows. The present study adopts this approach by examining the prediction of abusive discipline practices from scores on three measures of role stress.

Method

Sample

Subjects were 190 families, who were recruited through newspaper advertisements in the Eugene-Springfield, Oregon area to participate in a longitudinal study at the Oregon Social Learning Center. Families were paid $150 for their participation. Data collection occurred when target children were five and seven years old; however, only data collected during the five-year old wave were used in the present study.

Demographic statistics for the sample are as follows: Sixteen of the families consisted of single-fathers with one or more children, while 174 were two-parent families. Mean age of parents was 32.25 for mothers and 34.82 for fathers. Of the two parent families, 76.0 percent (n = 146) of the mothers were in their first marriage; 80.7 percent (n = 155) of fathers were in their first marriage. Mean number of years married for these couples was 9.13.

Most of the families had more than one child (for example, 17 percent had one child; 48 percent had two children). Of the target children, 102 were boys and 90 were girls. Mean yearly income for families was $22,800, which is below the local median of $28,400 for a family of four (HUD, 1984). Ethnic diversity within the sample was somewhat limited: 87.5 percent of mothers and 96.4 percent of fathers were Caucasian. Other ethnic groups represented by parents were Asian, Hispanic, Native American, and mixed race. While minority representation may therefore be considered somewhat limited compared to national norms, representation is typical of local norms.

Procedures

Although several modes of data collection were employed in the larger project, only two sources were examined in the present study. These included four one-hour observations conducted in subjects' homes and questionnaires completed by the parents.

Home Observations. Four 1-hour home observations were conducted. The purpose of these observations was to provide information on family interaction at the micro-social level. All family members were present during the observation sessions. They were instructed to behave normally, but not to engage in activities that would prevent interaction such as watching television or speaking on the telephone. Data were recorded by trained observers using automated data collection devices. After each session, observers completed a form to record their impressions. This form included ratings of the behavior of family members. It is a revision of the Reid's (1978) observer impressions checklist.

Observational data were recorded using the Fagot Interactive Behavior Code (Fagot, 1983). The code focuses on the behavior of a target child. Eight-digit entries capture the

following information: the behavior in which the child is engaged, with whom the child is interacting, to whom the child's behavior is directed, the family member responding to the child, and the nature of that response. A new code is initiated each time any information recorded by the code changes. Because coding is a real-time procedure, it is possible to measure durations as well as frequencies. Cohen (1960) has argued that in order a code to be considered reliable, inter observer reliabilities must exceed 80%, and kappas must exceed .70. In this sample, observer reliabilities in excess of 85% were obtained, and kappas ranged from .59 to .79.

Negative Discipline Measure. The inherent methodological difficulties involved in measuring abuse (outlined above) led to the decision to measure negative discipline instead. While negative discipline is not actually abuse, it may be thought of as a precursor in the chain of coercive events that leads to abuse. Certainly not all families who use negative discipline are involved in abuse; however, it is likely that most of those involved in abuse use negative discipline.

Negative disciple may be considered a latent variable; that is, it has a fairly broad definition and thus may not be readily measured directly. In keeping with a general trend in the literature to measure such latent variables through the use of constructs, a negative discipline construct was developed. Patterson & Bank (1986) have described the use of a multi-agent, multi-method procedure for building constructs. In this case, although a single agent-- the observer-- was the source all data, two methods of data collection were used.

From the observer impressions checklist, a negative discipline subscale was developed. Scale construction followed the same procedure as described above for the social stress measure. This resulted in a total of nine items for mothers and ten items for fathers, with Cronbach's alpha values of .87 and .86 respectively. Scale scores were then transformed to t-scores.

From the observational data, a negative response variable for mothers and fathers was computed based on the proportion of the total duration of observations a parent spent engaged in negative responses towards the target child. Negative responses included negative verbal communications such as teasing, criticism, or verbal punishment, and physical interventions such as restraining, spanking, or hitting. The negative discipline construct score was then computed by taking the mean of observed negative response t-score and the observer impressions negative discipline t-score.

Traditional values measure. The Parental Modernity Scale (Schaefer & Edgerton, 1985) was used to assess family role concept. This scale was selected because it assesses attitudes towards parenting, and thus appeared to be consistent with the present focus on behavior towards children. It consists of 30 items on a 5-point, Likert-type scale. Two

subscales exist to measure traditional, authoritarian attitudes and progressive attitudes. A single measure of modernity is then computed by subtracting scores on the traditional subscale from scores on the progressive subscale.

Intra-individual stress measure. Three levels of role stress were assessed: intra-individual, inter-individual, and sociological. Intra-individual stress was measured based on the assumption that psychopathology would be most likely to prevent an individual to enact a role and lead to poor parenting. Specifically, previous research (Chamberlain & Bank, 1989; Bank & Patterson, in press) has demonstrated that individuals with a 4-9 profile (high on Psychopathic Deviate and Mania scales) on the Minnesota Multiphasic Personality Inventory (MMPI) are more likely to exhibit poor parenting practices and to produce conduct disordered children. Thus, a 4-9 profile score was used to assess parents' intra-individual stress.

Social-interactional stress measure. Social-interactional stress was measured using the Dyadic Adjustment Scale (DAS, Spanier & Filsinger, 1983). The DAS was designed to measure marital satisfaction and consists of 32 items, most of which are Likert-type. The Total Satisfaction Subscale of the DAS, which is the sum of all items, was used here as an index of role stress in the marital relationship. Low scores were considered to be indicative of high levels of social-interactional stress.

Sociological stress measure. Sociological stress was assessed using the Family Events Checklist (FMEVE). The FMEVE is a measure that was developed at the Oregon Social Learning Center and has been used across a wide range of studies. In consists of an inventory of 49 potentially negative events and asks subjects to rate each one on a 1-4 scale. A score of 1 indicates the event did not occur in the past week; a score of 2 indicates the event occurred but had no negative effect upon the subject; a score of 3 indicates the event occurred and had a slightly negative effect; a score of 4 indicates the event occurred and had a very negative effect. Since the FMEVE includes a broad spectrum of negative events, it was necessary to select a subset of items relevant to sociological stress. This included a pool of 20 items for mothers and 19 items for fathers. Item-total correlations were then performed to evaluate internal consistency, and items with less than a .2ᵉ item-total correlation were excluded. This procedure was repeated until all remaining items had item-total correlations in excess of .20. For mothers, the final scale consisted of 12 items (see Appendix for details). The value of Cronbach's Alpha for these items was .84. For fathers, the scale contained of 7 items (see Appendix). The value of Cronbach's Alpha for these items was .75. In order to cross-validate resulting scales, psychometric analyses were conducted on them using an additional sample of 31 mothers and 18 fathers. Alphas for both mothers and fathers were above .70, and no items on either scale had item-total correlations of less than .20.

<u>Analyses</u>

Scores on each of the scales and on the negative discipline construct were computed for mothers and fathers. In addition a total parent score for each family was computed by combining maternal and paternal scores in one of two ways. In the case of instruments with identical scales for both parents, parent scores were simply the mean of maternal and paternal scores. In the case of instruments with different scales, standard scores for each parent were computed, and the mean of the standard scores formed the parent score. Analyses performed on maternal and paternal variables respectively made it possible to examine the extent to which the hypothesis is or is not accurate for each parent. Analyses performed on the parent variable allowed for consideration of whether the hypothesis is descriptive of families in general.

Parental Modernity Scale scores for mothers, fathers, and parents were used to define high, medium, and low traditionality categories for each of these groups. Individuals and/or families who scored in the top third percentile were placed in the low traditionality category; those who scored in the middle third were placed in the medium traditionality category; those who scored in the bottom third were placed in the high traditionality category.

Separate regressions were performed for mothers, fathers, and parents in high, medium, and low traditionality categories. This yielded a total of nine such analyses. Each regression equation included the three family stress variables as predictors and the negative discipline score as a criterion. An additional predictor, child gender, was included as well. This was done because there is considerable evidence which suggests differential treatment of boys and girls by mothers and fathers. Fagot (1978), for example, found that mothers and sons tend to have the highest level of coercive interaction within distressed families.

Predictors were entered into the equation using a hierarchical procedure. This is in keeping with Cohen & C .en (1983), who argue that hierarchical regression is appropriate when there are a small number of predictors that are the core of an hypothesis (such as the role stress variables), and one or more additional variables that may contribute causally to the equation (such as child gender). In such analyses, the "additional" variables are entered first, followed by the "core" variables. Cohen & Cohen state that core variables should be entered in the order that they are hypothesized to contribute to the effect; when no such order can be specified, as is the case in this study, they are entered as a single block. Thus for each regression analysis, child gender was entered first followed by the block of role stress variables. In addition to the regression analyses, intercorrelations among the variables in each regression were performed. This allowed for consideration of the relationships between pairs of variables as well as evaluation of multicollinearity among variables.

The primary goal of this study was to evaluate whether highly traditional attitudes

and high levels of role stress can be used to predict negative discipline. However, by additionally including subjects at medium and low levels of traditionality, and by performing separate regressions on mother, father, and parent variables, a broader range of hypotheses were able to be evaluated. One conceivable outcome is that none of the regressions would produce significant results. This might be termed a "total disconfirmation outcome," in that none of the original factors would seem to predict negative discipline. Another possibility is that all or nearly all of the regressions generated significant results. This could be considered a "generalized role stress-child gender outcome," which excludes high traditionality. Other alternatives include agent-specific outcomes, in which regressions yield significant results for only one type of agent (i.e. mother, father, or parent), and traditionality-specific outcomes, in which regressions generate significant results for only one level of traditionality. Finally, it is possible that only certain role stress variables have predictive value. Obviously, an infinite number of combinations of these outcomes is also possible. What might be termed a "total confirmation outcome" would be one where for all agents, role stress and child gender predict negative discipline for highly traditional subjects, but not for those at other levels.

Results

Mothers

Table 1 lists the intercorrelations between variables for mothers in the low, medium, and high traditionality categories. Note that correlations between child gender (a categorical variable) and other variables (ail continuous) must be interpreted with care in that they are Pearson rather than point-biserial correlations. An appropriate interpretation of a significant correlation between child gender and another variable would be that there are consistently different scores on that variable for boys and for girls. Specifically, positive correlations are indicative of higher scores for boys and negative correlations are indicative of higher scores for girls.

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Insert Table 1 about here

Among highly traditional mothers there were four significant correlations. A significant negative relationship existed between social-interactional stress and child gender, denoting higher levels of social-interactional stress in highly traditional families with female target children. A negative relationship also existed between social-interactional stress and sociological stress. In contrast, a positive relationship existed between intra-individual stress and negative discipline. Finally, the significant positive correlation between child gender and

negative discipline is indicative of higher levels of negative discipline of male children.

Among mothers who expressed medium traditionality, only the correlation between sociological and intra-individual stress was significant (in a positive direction). Also in a positive direction was the only significant correlation among low traditionality mothers, between child gender and negative discipline. As with highly traditional mothers, the positive nature of this relationship signifies higher levels of negative discipline of boys.

Among the correlations discussed above, only three were between independent variables (two in the high traditionality regression equation; one in the medium traditionality regression equation). While any significant relationship between independent variables is enough to raise questions regarding multicollinearity, such concerns can be laid to rest here for two reasons. First, in that child gender is a categorical variable, correlations between it and other independent variables may not be deemed overlapping variance in the traditional sense. One of the correlations in question here does involve child gender and thus should not be considered. In terms of the two other correlations, neither exceeds the criteria set by Goldberg (1990) of .90, which would make necessary a test of multicollinarity.

Results of the regression analyses conducted on maternal variables are listed in Table 2. Among highly traditional mothers, there were significant multiple R's at both the first step (child gender) and the second step (child gender & role stress measures). A test of the change in R2 between steps was also significant ($F(4,48) = 3.59$, $p < .05$). At the first step, the fact that child gender was the only variable ensured that it would have a significant beta weight. At the second step, both child gender and intra-individual stress had significant beta weights. Regressions on both medium and low traditionality mothers failed to produce significant multiple R's or significant beta weights on any of the variables.

Insert Table 2 about here

Fathers

Intercorrelations among paternal variables in the three traditionality categories are shown in Table 3. There were no significant correlations between variables among highly traditional fathers. Among medium traditionality fathers, there was a significant negative correlation between sociological and social-interactional stress. There was also a significant positive correlation between child gender and negative discipline, denoting more negative discipline of boys. Among low traditionality fathers, there was a significant positive

correlation between social-interactional and intra-individual stress. Significant positive correlations were also found between negative discipline and sociological stress and between negative discipline and child gender (again indicative of more negative discipline of boys). A significant negative correlation was found between intra-individual stress and negative discipline. As was the case with mothers, the significant associations between independent variables do not warrant tests for multicollinearity.

Insert Table 3 about here

Results of regressions are reported in Table 4. Multiple R's among high and medium traditionality fathers were not significant at either step, and none of the variables had significant beta weights. For low traditionality, however, the multiple R at step 2 was significant. The only variable in the equation at this step with a significant beta weight was sociological stress.

Insert Table 4 about here

Parents

Intercorrelations among variables for high, medium, and low traditionality parents are reported in Table 5. Among highly traditional parents, a significant negative correlation was found between sociological and social-interactional stress. Significant positive correlations were found between negative discipline and each of the following: child gender (signifying more negative discipline of boys), sociological stress, and intra-individual stress.

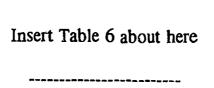---------------------------

Insert Table 5 about here

Among medium traditionality families, there were significant negative correlations between social-interactional and intra-individual stress, and between child gender and
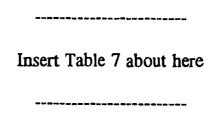
sociological stress. There was also a significant positive correlation between negative discipline and intra-individual stress. Among low traditionality families, child gender had a significant negative correlation with intra-individual stress, and a significant positive correlation with negative discipline.

Regression results for parents are shown in Table 6. Significant multiple R's were found in only two cases: (1) with all predictors in the equation for high traditionality parents, and (2) with only child gender in the equation for low traditionality parents. In the former case, the only predictor with a significant beta weight was intra-individual stress.

Insert Table 6 about here

Given the numerous positive correlations between child gender and negative discipline, a series of t-tests was performed to determine whether boys receive significantly more negative discipline than girls. Results are reported in Table 7. Mean negative discipline scores were higher for boys than for girls in all cases. However, these differences were significant only for high traditionality mothers and low traditionality parents.

Insert Table 7 about here

Discussion

The central issue around which the discussion of results is organized involves whether child gender and role stress predict negative discipline by parents at different levels of traditionality. As mentioned earlier, the design of the study is such that results may support the original hypothesis (i.e. that among highly traditional agents, role stressors and child gender are predictive of negative discipline) or a number of alternatives. In fact, results do in some ways support the hypothesis; however, some modifications must be made to accommodate the results fully.

For highly traditional mothers, the regression using the full model (including both child gender and role stressors) yielded a significant multiple R. The two variables that accounted for a significant amount of the negative discipline variance were child gender and

intra-individual stress. Thus high levels of negative discipline can be expected when the highly traditional mother is experiencing intra-individual stress and is interacting with a male child. Regressions using the full model for medium and low traditionality mothers failed to produce significant results. This pattern of results is consistent with the original hypothesis; it suggests that among mothers, the rigidity of traditional family roles combined with high levels of role stress are associated with higher levels of negative discipline.

In contrast to the results for the maternal variables, the results for paternal variables contradict the hypothesis. Among high traditionality fathers, where role stress and child gender are expected to predict negative discipline, they fail to do so. In contrast, among low traditionality fathers, where role stress and child gender are expected to have no bearing on negative discipline, a significant multiple R was obtained. One way to understand these findings is to consider that for both mothers and fathers, results may be affected by a variable not included in the equations: parental involvement. The use of negative discipline among highly stressed individuals might therefore be less a function of the roles to which they ascribe than an indication of the extent to which they are immersed in the daily care of their child. Intuitively, one would expect individuals who are under a great deal of stress to interact with others in a more negative and/or irritable manner. Highly stressed parents who interact frequently with their children (i.e. traditional mothers and non-traditional fathers), might thus be expected to exhibit more negative discipline than those who interact infrequently.

A preliminary test of this "parental involvement-role stress" hypothesis was conducted, entering mean total time spent with child (during the 24-hour periods preceding each of three 10-minute telephone interviews made as part of the larger study) as a separate block, followed by child gender, and then the role stressors. The same categories of high, medium, and low traditionality were used for regressions on mother, father, and parent variables. In none of the regressions did the inclusion of the time variable add significantly to the amount of variance explained by the predictors. However, these results must be interpreted with great caution for two reasons. First, in that parents were asked about the previous 24 hours, not about an average 24-hour period, it is unclear whether the values for total time used here are representative of the total time parents usually spend with their children. Additionally, it is questionable whether total time is an appropriate measure of parental involvement. Future research might help to determine whether parental involvement is a practical concept in predicting the use negative discipline and perhaps in predicting abuse as well.

The results for parents may be viewed as a composite of the results for mothers and fathers. Significant multiple R's were obtained for both high (as was the case for mothers) and low (as was the case for fathers) traditionality parents. In the low traditionality category this effect was limited to the reduced model (child gender only); however, it is likely that the multiple R for the full model would also have been significant given an increase in the

sample size. While these results are not surprising, given that parent variables are actually a combination of maternal and paternal variables, their interpretive value is limited.

It is notable that across regressions, all the beta weights that were significant had positive valences. In terms of role stress variables, this supports the notion that with increased stress comes increased negative discipline. In terms of child gender, the positive beta weights are consistent with the t-tests on gender differences in receipt of negative discipline reported earlier. Taken together, these results indicate that where child gender is relevant, it is boys who receive higher levels of negative discipline. This finding is consistent with earlier research. Unanswered by these analyses is the question of why boys receive more negative discipline than girls. Whether it is because they exhibit more acting out behavior is unclear at this time. Future research might examine the extent to which child gender and incidence of aggressive behavior contribute separately and/or interactively to negative parent behavior.

Summary & Conclusions

To summarize, results indicate that among highly traditional mothers, child gender and role stress predict negative discipline. Such is not the case among medium or low traditionality mothers. While this is consistent with the original hypothesis, the results for fathers are not-- in fact, they are in the opposite direction. One explanation for this outcome is that traditionality is not a valid predictor. Rather, it may be that parental involvement interacts with role stress to produce higher levels of negative behavior towards children. This would account for the fact that among low traditionality fathers, who might be expected to interact with their children more than highly traditional fathers, role stress does predict negative parenting.

A preliminary attempt to test whether parental involvement predicts negative discipline yielded negative results. However, methodological concerns call these analyses somewhat into question. Further research is necessary to clarify the role of parental involvement. At present, additional data are being gathered to allow for such investigation. The increase in sample size will also make it possible to split the sample based on child gender. Present results suggest that parental role stress may be useful in explaining negative discipline of boys, but not of girls.

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Appendix
Items on Sociological Stress Scale for Mothers, Fathers

Maternal Item	Corrected Item-Total Correlation	Squared Multiple Correlation
Not enough $ to buy needed item	.6900	.9226
Remodling or redecorating house	.4434	.5398
Contact w/lawyer or legal system	.4958	.7557
Not enough $ to buy desired item	.3574	.5826
Car broke down or needs repair	.3601	.5117
Item lost or stolen	.2837	.6821
Money lost	.3385	.8498
Failed to receive money/received bill	.6610	.7756
Contact w/unemployment or welfare	.5562	.9012
Unable to go out to dinner, movies	.6204	.8501
Not enough $ to pay bills	.7454	.8617
Family schedule seriously disrupted	.6182	.8518

Reliability Coefficients for 12 Items

Alpha = .8442   Standardized Item Alpha = .8421

Paternal Item	Corrected Item-Total Correlation	Squared Multiple Correlation
Not enough $ to buy needed item	.6952	.5740
Not enough $ to buy desired item	.5963	.5793
Paid the bills	.3222	.1590
School exam, paper, or problem	.4288	.2827
Contact w/unemployment or welfare	.5693	.7676
Unable to go out to dinner, movies	.4172	.7858
Not enough $ to pay bills	.5358	.5677

Reliability Coefficients for 7 Items

Alpha = .7533   Standardized Item Alpha = .7898

Table 1: Intercorrelations among role stress measures, child gender, and negative discipline: Low, medium, and high traditionality mothers.

	Trad. Level	Child Gender	Social-Intactnl. Stress	Socio-logical Stress	Intra-Individl. Stress	Negative Discipline
Child Gender						
Social-Inctnl. Stress	(H)	-.22*				
	(M)	-.04				
	(L)	.11				
Socio-logical Stress	(H)	-.15	-.30**			
	(M)	-.01	-.19			
	(L)	-.08	-.16			
Intra-Indiv. Stress	(H)	-.11	-.13	.20		
	(M)	.02	-.17	.30*		
	(L)	.18	.15	-.02		
Neg. Disc.	(H)	.23*	.03	.00	.34**	
	(M)	.17	-.21	.03	.21	
	(L)	.28*	.10	-.06	.02	

*p<.05 **p<.01

Table 2: Multiple regression results for mothers.

Predictor	High Traditionality (n=53) Betas and Rs at each step	
	Step 1	Step 2
	(R = .29*)	(R = .50**)
1. Child Gender	.29*	.38**
2. Intra-Individual Stress		.40**
3. Sociological Stress		.03
4. Social-Interactional Stress		.17

Predictor	Medium Traditionality (n=45) Betas and Rs at each step	
	Step 1	Step 2
	(R = .17)	(R = .32)
1. Child Gender	.17	.16
2. Intra-Individual Stress		.20
3. Sociological Stress		-.06
4. Social-Interactional Stress		-.18

Predictor	Low Traditionality (n=34) Betas and Rs at each step	
	Step 1	Step 2
	(R = .28)	(R = .29)
1. Child Gender	.28	.28
2. Intra-Individual Stress		-.04
3. Sociological Stress		-.02
4. Social-Interactional Stress		.07

*p<.05 **p<.01 #test for change in R2 sig. at p<.05

Table 3: Intercorrelations among role stress measures, child gender, and negative discipline: Low, medium, and high traditionality fathers.

	Trad. Level	Child Gender	Social-Intactnl Stress	Socio-logical Stress	Intra-Indivdl. Stress	Negative Discipline
Child Gender						
Social-	(H)	.12				
Inctnl.	(M)	-.05				
Stress	(L)	.08				
Socio-	(H)	.15	-.08			
logical	(M)	.10	-.52***			
Stress	(L)	-.17	.01			
Intra-	(H)	-.06	-.11	.06		
Indiv.	(M)	-.02	.04	.18		
Stress	(L)	-.12	.32*	.20		
	(H)	.05	.07	.16	.20	
Neg.	(M)	.23*	-.11	.10	.13	
Disc.	(L)	.25*	-.16	.25*	-.28*	

*p<.05   ***p<.001

Table 4: Multiple regression results for fathers.

Predictor	High Traditionality (n=48) Betas and Rs at each step	
	Step 1	Step 2
	(R = .05)	(R = .28)
1. Child Gender	.05	.03
2. Intra-Individual Stress		.20
3. Sociological Stress		.15
4. Social-Interactional Stress		.11

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Predictor	Medium Traditionality (n=46) Betas and Rs at each step	
	Step 1	Step 2
	(R = .23)	(R = .29)
1. Child Gender	.23	.23
2. Intra-Individual Stress		.14
3. Sociological Stress		.00
4. Social-Interactional Stress		-.10

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Predictor	Low Traditionality (n=37) Betas and Rs at each step	
	Step 1	Step 2
	(R = .25)	(R = .50*)
1. Child Gender	.25	.29
2. Intra-Individual Stress		-.28
3. Sociological Stress		.36*
4. Social-Interactional Stress		-.10

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*p<.05

Table 5: Intercorrelations among role stress measures, child gender, and negative discipline: Low, medium, and high traditionality parents.

	Trad. Level	Child Gender	Social-Intactnl. Stress	Socio-logical Stress	Intra-Indivdl. Stress	Negative Discipline
Child Gender						
Social-Inctnl. Stress	(H)	-.07				
	(M)	.09				
	(L)	-.05				
Socio-logical Stress	(H)	.18	-.26*			
	(M)	-.23*	-.20			
	(L)	-.00	-.22			
Intra-Indiv. Stress	(H)	-.12	-.06	.09		
	(M)	-.03	-.25*	.12		
	(L)	.31*	-.16	-.10		
Neg. Disc.	(H)	.25*	.02	.23*	.25*	
	(M)	.08	.02	.03	.36**	
	(L)	.39**	-.18	-.02	.24	

*p<.05   **p<.01

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Table 6: Multiple regression results for parents.

Predictor	High Traditionality (n=53) Betas and Rs at each step	
	Step 1	Step 2
	(R = .25)	(R = .42*)
1. Child Gender	.25	.26
2. Intra-Individual Stress		.27*
3. Sociological Stress		.19
4. Social-Interactional Stress		.10

Predictor	Medium Traditionality (n=49) Betas and Rs at each step	
	Step 1	Step 2
	(R = .08)	(R = .39)
1. Child Gender	.08	.09
2. Intra-Individual Stress		.39*
3. Sociological Stress		.02
4. Social-Interactional Stress		.11

Predictor	Low Traditionality (n=33) Betas and Rs at each step	
	Step 1	Step 2
	(R = .39*)	(R = .44)
1. Child Gender	.39*	.35
2. Intra-Individual Stress		.10
3. Sociological Stress		-.05
4. Social-Interactional Stress		-.17

*p<.05

Table 7: Results of t-tests comparing amount of negative disciple receive by boys and girls; Agents include mothers, fathers, and parents at low, medium, and high levels of traditionality.

Negative Discipline Towards:

Mothers:	n	Boys Mean	sd	n	Girls Mean	sd	t value
High Trad.	35	54.47	12.01	28	48.35	1.41	-2.35*
Med. Trad.	30	50.28	7.44	27	48.18	4.23	-1.30
Low Trad.	23	50.29	8.34	19	46.23	5.13	-1.85

Negative Discipline Towards:

Fathers:	n	Boys Mean	sd	n	Girls Mean	sd	t value
High Trad.	30	51.38	10.79	26	50.15	7.30	- .49
Med. Trad.	30	51.96	8.42	25	48.46	5.86	-1.76
Low Trad.	24	50.28	8.96	22	46.30	5.14	-1.82

Negative Discipline Towards:

Parents:	n	Boys Mean	sd	n	Girls Mean	sd	t value
High Trad.	34	52.46	8.40	27	48.67	6.15	-1.96
Med. Trad.	29	50.90	8.65	26	49.71	5.76	- .59
Low Trad.	21	51.34	10.03	20	45.14	3.26	-2.63*

*p<.05