Physical Wife Abuse in a Non-Western society: An Integrated Theoretical Approach.

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Abstract:

The current study uses survey data from a representative sample of 619 husbands residing in Bangkok, Thailand, to assess their use of physical force against their wives. Multivariate analyses are performed and a series of logistic regressions are estimated for an integrated theoretical model derived from resource, structural, and social psychological theories. The results provide strong support for the importance of socioeconomic status, marital instability, and verbal marital conflict as predictors of Thai wife abuse.

Article:

High levels of wife abuse are evident in almost all societies (Gelles & Cornell, 1983; Levinson, 1989; Steinmetz, 1987). In a recent cross-cultural study of small-scale and peasant societies, wife beating was the most common form of intrafamily violence, occurring in approximately 85% of the societies studied (Levinson, 1989). Research conducted specifically on European, industrialized societies also revealed high rates of physical wife abuse (Dobash & Dobash, 1979, 1983; Gayford, 1978, 1983; Gelles & Cornell, 1983; Steinmetz, 1981). A contemporary study of American couples conservatively documented that 1 in every 8 husbands had committed a violent act against his wife during the preceding year (Straus & Gelles, 1989). A comprehensive review of recent studies using probability samples revealed that the reported rate of wife abuse in the United States is between 11% and 22% (Straus & Gelles, 1989).

Despite a wealth of data on physical wife abuse, much of the research to date is atheoretical and relies heavily on samples from industrialized, Western societies, and on secondhand accounts, official records, or clinical samples (Gelles, 1987; Steinmetz, 1987), The current study utilizes a representative sample of married individuals from Bangkok, Thailand. A secondary analysis is conducted on survey data collected from 619 husbands with at least one child, assessing their use of physical force against their wives. The present investigation develops an integrated model based on resource, structural, and social psychological theories. Previous research suggests that important correlates of wife abuse include socioeconomic status variables (educational level, occupational prestige, income), stress, alcohol abuse, verbal marital conflict, number of children, and number of years married. Other proximate family experiences and processes that have not been directly examined in previous research on physical wife abuse include marital companionship and the quality of parent-child relations. We assess the influence of these variables and examine the utility of an integrated theoretical model in explaining wife abuse perpetrated by Thai males in an urban area of a developing Asian society.

THEORIES AND PREVIOUS RESEARCH

Social Structural Factors

Goode (1971) was the first to apply Blood and Wolfe's (1960) resource theory of power to explain a husband's use of physical force against his wife. Goode maintained that violence is a resource similar to money or personal attributes that can be used to deter unwanted actions or to induce desired behaviors. Goode (1971) argued that the greater the resources available to an individual, the more force he or she can use, but the less

likely violence actually will be employed. Violence is viewed as the "ultimate" resource in that it is used when other resources are perceived to be insufficient or have failed to obtain the desired response. The use of violence thus can be seen as the most oven and effective means of husbands' social control over wives (Yllo & Bogard, 1988) in that it is used when other and more subtle methods of control do not elicit submission.

Socioeconomic status. Allen and Straus (1980) tested key propositions of Goode's (1971) resource theory of violence using occupational prestige, educational level, income, and satisfaction with income as measures of extrinsic resources, as well as using variables assessing interpersonal, intrinsic resources. They found a strong, positive correlation between the low resources/working class variable and the husband's use of physical force (Allen & Straus, 1980). This is consistent with other studies that showed that husbands who experience resource deprivation are more likely to physically abuse their wives (Browker, 1983; Pagelow, 1981).

Wife abuse occurs in all socioeconomic classes, but it appears to be more common and more severe among lower socioeconomic classes (Gelles & Straus, 1988; Hotaling & Sugarman, 1986, 1990). Many studies have documented that lower levels of income are associated with higher levels of physical wife abuse (Gelles & Cornell, 1990; Hotaling & Sugarman, 1986; Okun, 1986; Steinmetz, 1987; Straus, Gelles, & Steinmetz, 1980; Van Hassett, Morrison, Bellack, & Hersen, 1988). Steinmetz (1987) and Straus et al. (1980) suggested, though, that the relationship between income and family violence may be indirect and may be mediated by the stress-reducing mechanisms generally available to families with higher incomes. In addition, higher levels of educational attainment among both husbands and wives are associated with lower rates of physical wife abuse (McCall & Shields, 1986; Okun, 1986; Steinmetz, 1987; Straus et al., 1980). Straus et al. (1980) note, however, that the relationship between educational level and wife abuse may be curvilinear, with lower rates among those with little or no formal education and those with post-high school degrees.

Status inconsistency. O'Brien (1971), Rodman (1972), and Gelles (1974) have employed and modified Goode's "ultimate" resource theory of violence. O'Brien (1971) and Gelles (1974) contended that if a husband does not possess more skills or resources than the wife to legitimate his ascribed superior status, he may use physical force as a last resort. Rodman (1972) maintained that the impact of resources has to be viewed within the cultural context of the marriage, and that the critical factor is the comparative resources of the husband and wife, rather than the absolute resources of the husband. These extensions of the resource theory of violence suggest that it is the status inconsistency within the marriage, specifically with regard to differences in occupational prestige and educational attainment, that threaten and disrupt the traditional, patriarchal patterns of authority, leading to higher levels of physical wife abuse.

A few studies have used propositions of the "modified" resource theory of violence to explain higher rates of violence in marriages where a status inconsistency exists between the spouses. Gelles (1974) found that intracouple differences in occupational prestige, where the wife's status is higher, are associated with higher levels of wife abuse. Other studies have lent support to the hypothesis that differences between husband's and wife's educational attainment are positively related to wife abuse (Gelles, 1974; O'Brien, 1971).
Research on the level of resources consistently indicates that there is more violence when the husband has lower socioeconomic status or fewer resources than his wife. In couples of all social classes, marital inequality is strongly associated with high levels of physical wife abuse, particularly among couples where the husband may feel threatened by an educational or occupational disadvantage relative to his wife (Yllo & Bogard, 1988). This relationship is buttressed by a study of cohabiting and married women that found that status inconsistency, where the husband's status was lower than the wife's, was related to the incidence of both minor and life-threatening uses of force among couples (Hornung, McCullough, & Sugimoto, 1981). Specifically, disparities in occupational prestige, rather than education, resulted in a higher risk of physical aggression.

Intrapersonal Stress
Psychological stress. Goode (1971) situated his resource theory of violence within the context of the distribution of resources within society. Individuals and groups of people who have fewer resources relative to the other members in the society are expected to experience higher levels of frustration and stress. Gelles (1974)

proposed a similar theme in his structural theory to explain the higher incidence of family violence in lower socioeconomic classes. Individuals and families in the lower socioeconomic classes suffer frustrations as a result of their disadvantaged social position (Coser, 1967; Gelles, 1974). These individuals not only have higher levels of stress, but often have fewer material, emotional, psychological, and social resources to cope adequately. Violence is one response to structural stress and frustration stemming from deprivation (Coser, 1967; Gelles, 1974).

Frustration from material deprivation may result in physical wife abuse because the husband is limited in his ability to provide financially for his family and to meet the normative expectations of provider (Gelles, 1974), particularly given patriarchal standards. Hence, if a husband cannot meet role expectations due to little education, a low prestige job, low income, or because he has a lower social status than his wife, the stress and frustration may result in his use of violence. Stress results when there is a discrepancy between demands and response capabilities (Farrington, 1980), with social norms allowing for wives to be seen as acceptable targets upon whom to vent these frustrations.

Hence, both resource and structural theories maintain that low socioeconomic status is associated with additional frustration and stress, leading to higher rates of wife abuse. Several studies, in fact, have provided evidence that batterers report high levels of stress (Ganley & Harris, 1978; Mulvey & Lidz, 1984; Straus et al., 1980).

Alcohol abuse. One important and frequently used variable in social psychologically oriented models explaining physical wife abuse is the husband's alcohol use. Studies have consistently demonstrated a strong association between alcohol abuse and physical wife abuse (Coleman & Straus, 1983; Hotaling & Sugarman, 1986; Kantor & Straus, 1989; Steinmetz, 1987). Despite the indication of a causal relationship, however, Steinmetz (1987) and Kantor and Straus (1989) cautioned against positing a direct effect. Studies on alcohol abuse and wife abuse suffer from a reliance on the recollections and perceptions of what constitutes a drinking problem, the use of different measures, and a failure to examine possible curvilinear and interaction effects (Coleman & Straus, 1983; Kantor & Straus, 1989; Steinmetz, 1987). For these reasons, in the current study we include separate measures of alcohol abuse, level of psychological stress experienced by the husband, and his perception of excessive demands placed on him. Prior research would lead us to believe that these variables, as indicators of intrapersonal stress, should be positively related to the occurrence of physical wife abuse.

Family Processes

Marital relations. Previous research has indicated that low levels of spousal interaction and high levels of marital stress and conflict are associated with marital unhappiness (Kingston &Nock, 1987; Noller & Fitzpatrick, 1990; White, 1983). Compared to happily married couples, unhappy couples tend to blame problems on each other, complain, criticize, and put each other down (Noller & Fitzpatrick, 1990). They also spend less time with each other (Kingston & Nock, 1987; White, 1983) and tend to view their problems as due to factors (such as personal dispositions) over which they have little or no control (Fincham, Bradbury, & Grych, 1991; Noller & Fitzpatrick, 1990). Accordingly, we would expect an inverse relationship between marital companionship and the likelihood of physical wife abuse.

Another indicator of poor marital relations is marital instability, a term generally used to describe a "shaky, intact marriage" (Edwards, Johnson, & Booth, 1987). Marital instability refers to thoughts and actions indicating that the marriage is being questioned, and that divorce or separation are being considered. High levels of marital instability appear to be strongly associated with physical wife abuse (Edwards, Fuller, Vorakitphokatorn, & Serrasri, 1992; Fagan, Stewart, & Hansen, 1983; Pagelow, 1984), in that women appear to be especially vulnerable to violence as the marriage begins to deteriorate.

Although stress stemming from financial difficulties, employment insecurity, job dissatisfaction, and other sources may contribute directly to wife abuse, it is more likely that stress and poor marital relations precipitate arguments and disagreements between spouses, which, in turn, may eventuate in violence (Shupe, Stacey, &

Hazelwood, 1987). Hotaling and Sugarman (1990) reported that conflicts in violent marriages often involve disagreements over the division of labor, frequent drinking by the husband, and the wife's having a higher educational attainment than her husband. Straus et al. (1980) found that the frequency of verbal disagreements is strongly related to the likelihood of physical aggression, with "extremely high conflict" couples having a rate of violence 16 times greater than couples with the fewest arguments. Stets (1990) examined more closely the relationship between verbal and physical aggression, and concluded that verbal and physical aggression should be viewed as a two-step process. While verbal aggression will not always result in physical aggression, it is "a necessary precondition for physical aggression" (p. 504).

Parent-child relations. Parent-child relations are important aspects of family process, influencing marital dynamics in myriad ways. Research has consistently shown that social and financial demands associated with parenting are quite stressful, that child-related concerns have adverse effects on parents' mental and physical well-being, and that parents often feel run-down, worried, and depressed, especially when they view their children's behavior as problematic (Greenberger & O'Neill, 1990; Pearlin, Lieberman, Menaghan, & Mullan, 1981; Ross & Huber, 1985). Many other studies have attributed lower marital satisfaction during the childrearing years to children disrupting marital interaction, communication, privacy, and spontaneity (e.g., Feldman, 1971; Schumm & Bugaighis, 1986; White, Booth, & Edwards, 1986). Given the demands of parenting and its effect on the quality of marital interactions, we expect the quality of parent-child relations to be inversely associated with husbands' physical abuse of wives.

Other Correlates

Other correlates of wife abuse are important because they may mediate the impact of socioeconomic status or resources commanded by the husband, they may affect the level of stress experienced by the husband, or they may influence other aspects of marital and family relations. Younger marriages, for example, are more often associated with general financial insecurity. Thus, duration of marriage may affect the impact of socioeconomic status, the level of stress experienced by the husband, and the overall perceived quality of parental and marital relationships. In addition, the number of children is an important influence on family resources and family interaction patterns. Fagan et al. (1983) reported that children are present in 80% of the families reporting wife abuse. Straus et al. (1980) found a strong positive, linear relationship between the number of children (up to six) and the rate of spousal violence. Each additional child requires added family resources and increases the overall level of parental stress. For these reasons, we control for length of marriage and number of children in the analyses described below.

THEORETICAL MODEL AND HYPOTHESES

Based on propositions derived from previous theories and research, we developed the following models to guide our empirical analyses. The structural model assesses the general propositions regarding the importance of socioeconomic status and status inconsistency. A composite socioeconomic status scale and the two status inconsistency variables are hypothesized to be related to wife abuse.

The stress model enables us to assess the general proposition that lower socioeconomic status and status inconsistency are associated with higher levels of stress and frustration, which in turn may lead to wife abuse. The stress model incorporates the variables used in the structural model, and adds the following measures of the husband's intrapersonal stress: psychological stress, felt demands, and alcohol abuse. If socioeconomic variables are significant in the structural model (step one), but not in the stress model (step two), this suggests that stress mediates the influence of structural factors on wife abuse. To better identify the causal ordering of the variables and to determine if these structural factors, particularly socioeconomic status, have direct and/or indirect effects through stress on wife abuse, a separate analysis regresses the structural variables on the measures of stress.

The family process model, or third step, assesses the general proposition that increased stress experienced by the husband leads to negative marital and family interaction and feelings of dissatisfaction with these relationships. Poor marital and family relations are predicted to be associated with physical wife abuse. This step incorporates the family process measures into the model, specifically those concerning parent-child

relations, marital companionship, and marital instability. If the effects of stress are significant in the stress model, but not in the family process model, this suggests that the effects of stress on wife abuse are indirect, operating through family relations. To better identify the causal ordering of the variables and to determine if the structural factors have direct and/or indirect effects through marital and family interactions, a separate analysis regresses the structural variables on the measures of marital and family relations.

Due to the significance of verbal marital conflict in previous research, and because verbal conflict is theorized to be a necessary precondition for physical wife abuse, we add verbal conflict separately in the integrated model, or fourth step. This enables us to assess whether the influence of the socioeconomic variables, stress, or other family process variables are mediated by verbal marital conflict.

In addition to empirically examining each of these propositions, we assess whether the inclusion of each set of variables, or steps, produces a better fit to the data. We control for both duration of marriage and number of children in all of the analyses.

THE THAI CONTEXT

As in many cultures, the family is highly valued in Thailand and strong kin relationships are emphasized. But Thai families have been undergoing significant change over the course of the last 50 years, which has been accelerated by the twin forces of growing urbanization and rapid industrial expansion. Today, mate selection is primarily by mutual choice, with parents playing an indirect role. Monogamy is the legal and widely practiced norm, departing from polygynous marriage which was permitted until 1935 (Landon, 1968). Family size, particularly in urban areas, has rapidly declined, currently standing below replacement level as the result of a vigorous government program promoting effective contraception (Chajovan, Kamnuansilpa, & Knodel, 1988). While many Thais still reside in three-generation households, a large majority of urban residents live in nuclear family units. Along with many Western societies, various marital and family problems have escalated, and the divorce rate has risen by 50% over just the last decade (Thailand Ministry of the Interior, 1988).

Some maintain that male-female relations among Thais are becoming more egalitarian (Sangsingkeo, Leoprapai, & Sriburatham, 1988), and it is true that male-female levels of formal education are converging; the same is true for levels of paid labor force participation. Nationwide, more than half of all wives are employed in the paid labor force, providing additional economic resources for their families. It is also the case that the status of women in Thailand is relatively high compared to women in other developing countries (Safilios-Rothschild, 1985). However, Thai culture continues to emphasize patriarchal values and to reinforce traditional gender roles within the context of the family. The culture emphasizes "macho" characteristics in males. A clear-cut double standard exists with regard to sex, whether it be premarital or extramarital sex. Wives bear the sole responsibility for household chores. They, and not husbands, are expected to engage in most of the activities associated with childrearing (F.d-wards, Fuller, Vorakitphokatorn, & Sermsri, in press).

All of this may be tempered to some degree by Thai religion, which has special relevance to any discussion of family violence among Thais. Buddhism, as the dominant religion of Thailand, prescribes principles of compassion, responsibility, and caring for others. It stresses the avoidance of extremes in all things and promotes the importance of harmony in all social relations. Buddhism, furthermore, is a religion of action, not one simply of beliefs. Thais are expected to manifest their religion in everyday actions. Translated into family behaviors, Buddhism normafively emphasizes that spouses should care for and show respect for one another, parents should love and protect their children, and offspring should respect their parents. Above all, harmony should reign in the family, as in all other social relationships.

Given these cultural prescriptions, violence of any sort in the family would be expected to be rare. Cross-cultural research suggests, however, that violence is common and that in small-scale or peasant (folk, traditional) societies, wife beating is the most common form of violence, occurring in approximately 85% of all such societies (Levinson, 1989). But there are also important regional variations, One of the ethnographic accounts contained in Levinson's study concerned a village community in central Thailand, which was

characterized as having little or no wife abuse. Campbell's (1985) examination of ethnographic data on several non-Western, developing countries also noted that wife beating in Thailand (specifically, the central region) was absent or extremely rare. However, rural villages and central Thailand, which is mainly comprised of rural villages, may be very atypical of what occurs in more urbanized areas. As we will later note, the incidence of abuse in the Bangkok sample used in this study is comparable to that found in industrialized countries, perhaps reflecting the effects of urbanization and family change.

METHODS

Sample Design and Data Set

This study involves a secondary analysis of data gathered by trained Thai interviewers through face-to-face interviews. The interview schedule was developed on the basis of information obtained from focus groups conducted by native Thais. It was finalized through a series of back-translations from English to Thai and vice versa. The final instrument thus contains specific wording and items that were mentioned in the focus groups. With regard to the types of physical force used by husbands against their wives, slapping, hitting, and kicking were all mentioned in the focus groups.

With the assistance of the National Statistical Office in Bangkok, administration districts were sorted according to their population density. This explicit sorting of administration districts by population density was done to facilitate the primary focus of the original research, which concerned the effects of crowding on marital and family relations. The sample was drawn from Bangkok administration districts utilizing a two-stage, probability-proportional-to-size, cluster sample design with implicit stratification for population density. Additional stipulations placed on eligible households included having an intact marriage with at least one child, and the wife being no more than 45 years of age. The process netted a representative sample of 2,017 households, with a response rate of 87%. The subsample of husbands used here is 619.

For two primary reasons, only husbands are included in our analyses. First, most studies analyze wives' reports of violence by their husbands, so the opportunity to examine husbands' reports is unique and allows the comparison of our findings to previous results based on wives' reports. Second, and equally important, the level of intrapersonal stress experienced by the husband is crucial to the development of the theoretical model assessed. Reports of experienced stress are only available when the husband is the respondent. It should be noted that the rate of physical wife abuse reported by the wives (18.0%) in the larger sample was nearly identical to that reported by husbands (19.5%), giving us greater confidence in the reliability of the husbands' reports.

The husband subset did not differ significantly on social background demographics or other variables used in the analysis. The majority of the sample was of Thai descent (10% were Chinese), and the average age of the husbands was 37 years. Most (93%) of the husbands were employed full-time, having an average of 8 years of formal education. The average age of their wives was 33 years and 63% were working in the paid labor market at the time of the interview. Three-fourths of the husbands had one or two children, and the average length of marriage was approximately 11 years. Over 88% of the respondents were in their first marriage. The majority (72%) of the husbands lived in nuclear family households. One-fourth of the households were three-generation families, with the remaining 3% containing two or three married couples and their children. The average family income reported was 5,750 baht or approximately 230 American dollars per month.

Measures

Dependent variable. Harmony, as we have mentioned, is a strong Thai cultural prescription. Violence is to be avoided and, when it does occur, is strongly condemned. Yet, in the focus group sessions that were conducted preceding the survey, there was recurrent mention made of violence directed toward wives. Most frequently, this involved mention of slapping, hitting, or kicking, which led to the inclusion of these items in the survey interview. Due to the highly sensitive nature of the topic, however, and in the interest of maintaining interviewer-respondent rapport, there were no probes made concerning the frequency or severity of these or other forms of violence.

Three questions incorporating specific items from Straus's (1979) Conflicts Tactics Scale are used to assess whether husbands ever hit, slapped, or kicked their wives. Physical wife abuse is treated as a dichotomy, with yes coded as I if a husband had ever engaged in any one of these acts of violence, and no coded as 0. Factor analysis reveals a unidimensional concept, with an alpha reliability coefficient of .74.

Predictor variables. The husband's socioeconomic status is measured using a scale incorporating family income, husband's occupational prestige, and his educational level, with higher scores indicating higher status. Family income has 10 response categories. Educational attainment reflects the number of years of formal education completed up to 12 years, with an additional unit increase for each post-high school degree obtained. Occupational prestige is measured utilizing the categories and scale designed by Treiman (1977). Factor analysis reveals that this three-item scale measures a unidimensional concept, and Cronbach's alpha, utilizing standardized values, is .70.

The variable measuring the occupational prestige differences between the spouses is calculated by subtracting the occupational prestige of the wife from the rating for the husband. Husbands and wives who were not employed in the paid labor force at the time of the interview are coded 0 for occupational prestige. The other variable assessing status inconsistency is an educational attainment difference, computed by subtracting the number of years of school completed by the wife from the number completed by the husband. Both of these status inconsistency variables are coded such that a positive score indicates that the husband's status is higher.

The husband's level of stress and frustration is measured by two composite scales. Psychological stress is operationalized by an eight-item scale assessing the frequency of psychological symptoms experienced in the past few weeks. Sample items include worrying, frustration, irritability, and reports of depression. The response categories for the items are never, rarely, sometimes, and often. Higher scores indicate higher stress. Factor analysis indicates that the eight items measure a unidimensional concept, and the alpha reliability coefficient for this unweighted scale of the subsample of husbands is .82.

The other scale utilized to assess the stress and frustration felt by the husband is termed felt demands. This four-item scale includes items addressing whether or not the husband feels that he is constantly being interrupted, that he never has peace and quiet, that others are always making demands, and that he always has something to do. The response categories used for the items are no, undecided, and yes. In a factor analysis, the items load strongly on a single factor, and the alpha reliability coefficient for this unweighted scale is .65.

The severity of the husband's drinking problem is used as the final measure of intrapersonal stress experienced by the husband. Alcohol abuse is operationalized by a composite scale, based on the drinking problem for the past month. The specific items concern the frequency with which the husband reported that he drank more than planned, that his drinking interfered with previous arrangements, and that his drinking caused arguments with household members. The three items in this scale utilize the four responses: never, rarely, sometimes, and often. Factor analysis suggests a unidimensional concept, and the alpha reliability coefficient for this unweighted scale is .65.

Marital companionship is assessed by a four-item composite scale that measures the positive affect displayed by the spouses towards one another. The items assessed the frequency with which the spouses shared a joke or a laugh, showed love and affection, engaged in small talk, and did something the other appreciated in the past month. Possible responses consist of four categories (never, rarely, sometimes, often). The alpha for this unweighted scale is .72.

Marital instability is measured by a four-item composite scale adopted from Edwards et al. (1987). The scale comprises the following items: you or your spouse became so angry that one of you is asked to leave home, thoughts of divorce or separation in the last 3 years, discussions of divorce or separation with a close friend, and

whether you or your spouse ever seriously suggested divorce or separation in the last 3 years. All of these items have response categories of yes or no. The alpha for this unweighted scale is .76.

Parent-child relations are measured by a single item that assesses the overall quality of the parent-child relationship from the husband's perspective, with response categories of not too well, well enough, well, and very well.

A seven-item composite scale is used to assess verbal marital conflict by measuring the frequency of disagreements that occurred in the past few weeks. This scale incorporates several issues that married couples discuss and may argue about, such as spending money, not spending enough time at home, irritating habits, talking to other men/women, gambling, disciplining children, and whether or not the couple had a "serious argument." In a factor analysis, the items load strongly on a single factor, with an alpha level of .65.

Control variables. The duration of the marriage is coded from 0 to 30, with 0 indicating less than 1 year. The number of children is coded from 0 to 6, indicating the number of children under age 18 currently living with their parents.

Analytical Procedures
Multivariate analyses are performed to assess the different models. Because physical wife abuse is a dichotomous dependent variable with a skewed distribution, a series of logistic coefficients are estimated (Aldrich & Nelson, 1984; Morgan & Teachman, 1988). This frequency distribution of wife abuse violates the usual assumptions of ordinary least squares regression. The statistical technique is chosen over loglinear analysis because it maintains the integrity of the interval nature of the predictor variables. Logistic regression, like ordinary least squares regression, provides maximum likelihood estimates of the net effects of a set of predictor variables on a dependent variable without transforming the scale of the independent variables (Morgan & Teachman, 1988). One regression equation is computed for each step or stage of the integrated theoretical model.

To facilitate a more practical interpretation of logistic regression coefficients, their corresponding antilogs and proportional effects of one unit change in the independent variable are also generated and presented. These proportions are computed by multiplying the beta of the independent variable by P(1-P), in which P(1-P) is the variance of the dependent variable evaluated at P or the mean (Hanushek & Jackson, 1977). A model chi-square is calculated which, if significant, indicates that the predictor variables comprising the proposed stage of the model provide a better fit for the data than the model of independence (Morgan & Teachman, 1988). Lastly, to better assess possible direct and indirect effects of the structural variables, particularly socioeconomic status, ordinary least squares regression is used to estimate coefficients for these variables regressed on all measures of intrapersonal stress and marital and family relations.

RESULTS
More than 25% of the husbands reported moderate to high levels of psychological stress, and 37% experienced excessive demands made on them and their time. Nearly three-fifths (59%) of the husbands reported drinking alcohol, with 35% revealing some problem with alcohol misuse. Almost two-thirds (64%) of the husbands stated that they got along well with their children and over half (53%) of the husbands reported moderate to high levels of marital companionship. One-third (32%) indicated some marital instability, and almost 50% reported some verbal marital conflict.

Approximately 20% of the husbands revealed that they had hit, slapped, or kicked their wife at least once in their marriage. Slapping was the most common form of physical abuse utilized by the husbands in the sample. Zero-order correlations among the variables are presented in Table 1. Socioeconomic status is significantly related to felt demands, marital companionship, marital instability, verbal marital conflict, and wife abuse. The husband's level of stress (both measures) is strongly associated with his alcohol abuse, the stability of the marriage, the amount of verbal marital conflict, and wife abuse. Psychological stress also is significantly and

negatively related to parent-child relations and marital companionship. Along with socioeconomic status and stress, all of the family process measures, as well as the husband's alcohol abuse, are significantly correlated with the occurrence of wife abuse.

The logistic regression results for each model are shown in Table 2. In the structural model (step 1), socioeconomic status is significantly and negatively related to the occurrence of physical wife abuse, controlling for status inconsistency, number of children, and years married. The proportional effect of socioeconomic status (-.033) can be interpreted such that for a one-unit increase in socioeconomic status (with other variables held constant), the likelihood of wife abuse decreases 3.3%. Neither occupational prestige differences nor differences in educational attainment are significantly related to the incidence of wife abuse.

In the stress model (step 2), measures of husband's intrapersonal stress are added, but they do not appear to mediate the strong effects of socioeconomic status on the occurrence of wife abuse. Of the three variables added, only the level of psychological stress is significantly related to physical wife abuse. However, the severity of alcohol abuse was statistically significant at the .06 level. An examination of the chi-square change from the structural model to the stress model reveals an increase of 19.340, which is statistically significant, indicating that the inclusion of intrapersonal stress to the model is important.

In the family process model (step 3), three of the four family process variables are incorporated into the model and they appear to mediate the effects of husband's psychological stress. Both the quality of parent-child relations and the level of marital instability are significantly related to the incidence of abuse. Marital instability exerts a particularly powerful influence on wife abuse, with its proportional effect indicating that for each unit increase, the likelihood of wife abuse increases by more than 11%. Further, the inclusion of these variables does not alter the impact of socioeconomic status on wife abuse. An examination of the chi-square change from the stress step to the family process step reveals a dramatic increase (49.832), indicating that the inclusion of the quality of marital and family relations to the model is a significant improvement.

As a final step, verbal marital conflict is added to the integrated model (step 4), and it exerts a significant influence even with controls for socioeconomic status, husband's stress, and other family process variables. With the introduction of verbal marital conflict, the effect of parent-child relations is no longer statistically significant at the .05 level, but the magnitude of the relationship remains essentially unchanged ($b = -.360$, $p = .057$). Further, the inclusion of verbal marital conflict weakens only slightly the strong impact of socioeconomic status and marital instability on the occurrence of physical wife abuse. The proportional effects for the complete model reveal that a one-unit increase in socioeconomic status decreases the likelihood of wife abuse by 2.6%, while one-unit increases in marital instability and verbal conflict increase the chance of violence by 8.8% and 3.2%, respectively. Adding verbal conflict to the model results in a significant improvement in the chi-square (29.044).

It is important to note that the chi-square is significant for each of the equations, and that the chi-square change between the steps is statistically significant in each case, indicating an acceptable fit for the data and an improvement in the model with each set of new variables. A least squares regression analysis reveals that the R2, or the amount of variance explained by the integrated model, is approximately 22% and is statistically significant.

In an attempt to identify the causal ordering of the variables and to assess more precisely the direct and indirect effects, we conducted additional OLS regression analyses. In Table 3, the structural variables are regressed on the stress measures. Socioeconomic status is significantly associated with felt demands and is close to being a statistically significant predictor of psychological stress ($b = -.178$, $p = .058$). Thus, in addition to its direct effect on wife abuse, low socioeconomic status has an indirect effect by increasing husbands' frustrations and anxieties (see Figure 1). Socioeconomic status is not significantly related to the other two measures of intrapersonal stress, and the two indicators of status inconsistency are unrelated to the measures of stress. It is interesting to note that the number of years married is inversely related to psychological stress and that the

number of children is positively related to felt demands. The structural factors alone explain little of the variance in stress.

In Table 4, the structural variables are regressed on the family process measures. Socioeconomic status is consistently and strongly related to the marital relations measures, specifically marital companionship, marital instability, and verbal conflict, but it is not a statistically significant predictor of parent-child relations. As is the case with the stress measures, socioeconomic status exerts the strongest effect of the structural factors. These findings suggest additional indirect effects of socioeconomic status on wife abuse, operating through increased marital tension. The amount of educational difference between spouses exerts a small but significant effect, although only for the measure of marital instability. As with psychological stress, marital duration is significantly and negatively related to marital instability. The structural factors alone explain little of the variance in family process measures.

DISCUSSION

Our findings document substantially higher rates of physical wife abuse than found in previous ethnographic studies based on rural areas of Thailand (Campbell, 1985; Levinson, 1989). We find that in this urban Thai sample, the reported rate of wife abuse by husbands is approximately 20%, similar to rates documented in the United States and other industrialized societies (Dobash & Dobash, 1979, 1983; Gaylord, 1978, 1983; Straus & Gelles, 1989). That such a high level of wife abuse occurs in a predominantly Buddhist population, in which family harmony and compassion are strongly valued, provides further evidence of the pervasiveness of physical wife abuse. It should be noted, however, that three methodological factors may have contributed to the higher incidence of wife abuse observed in this study. First, the current sample is drawn from Bangkok rather than from more rural areas of the country or from a representative national sample. Second, the variance in the number of children is restricted because all of the respondents had at least one child. Straus et al. (1980) found that couples without children report lower levels of wife abuse. If childless couples had been included in the sample, the overall rate of wife abuse may have been somewhat lower. Lastly, the survey measured acts of wife abuse ever committed, whereas other studies have asked about acts committed in the previous year. However, despite these methodological issues, it is important to emphasize that these rates could still be low estimates due to the possible underreporting of behaviors that are considered by cultural standards to be completely unacceptable.

As suggested by resource theory, a higher level of absolute resources or socioeconomic status decreases the likelihood of physical wifeabuse, even when controlling for the husband's stress, the level of status inconsistency between spouses, the number of children, and the duration of marriage. It thus appears that the effects of economic deprivation are pronounced and are not mediated by other variables associated with wife abuse. Husbands with fewer socioeconomic resources are more likely to physically abuse their wives. This finding provides empirical evidence that the hypothesized negative relationship between resources and wife abuse suggested by Goode (1971) holds within an Asian society. In addition, economic hardship has indirect effects on wife abuse by elevating husbands' stress and straining marital interaction. In Thailand, as elsewhere, wife abuse seems to be encouraged by cultural norms prescribing male dominance and power within traditional marriage. Husbands who have few resources may very well feel inadequate or threatened and may use violence to exert their power, establish control, and maintain dominance within the home (Gelles & Straus, 1988). Women in lower socioeconomic classes are more vulnerable than other women because wives in these marriages often lack the economic and personal resources that are necessary to leave their violent relationship (Baber & Allen, 1992; Yllo & Bogard, 1988).

These findings regarding resources and socioeconomic status are especially significant because 93% of the husbands in the sample were employed full-time. Future research should examine unemployed and underemployed husbands and their work conditions to disentangle the specific aspects of lower socioeconomic status that escalate the likelihood of abuse. Particularly for marriages characterized by low resources, factors need to be identified that could assist women in exiting abusive relationships.

The hypothesized relationship between relative resources, or status inconsistency, and physical wife-abuse was not empirically supported. Occupational prestige differences and educational attainment differences between spouses do not appear to affect the occurrence of abuse. Educational differences between spouses may indirectly affect abuse by increasing marital instability. It should be noted that husbands (7%) and wives (37%) who were not employed at the time of the interview were coded 0 for occupational prestige. This coding scheme inflates differences between spouses and lends even greater support for the nonsignificant results. The lack of a direct relationship between educational attainment differences and wife abuse, however, could be a function of the overall low level of educational attainment (8 years) in this sample. The variance on educational attainment was restricted due to husbands' and wives' educational attainment differing, on average, by only 1 year; 42% of the spouses had the same level of education.

Clearly, future research should investigate spouses who are more discrepant on educational attainment. Researchers also should examine occupational prestige and the proportion of family income generated by wives' paid labor in order to better assess educational and occupational differences between spouses. It is important to consider the wives' contributions to family income and their level of equality on educational attainment and occupational prestige because these factors bear on power relationships in the marriage. Although such inequalities are institutionalized in a sexist social structure (Yllo, 1984), marriages that minimize these inequalities through egalitarian decision making have the lowest levels of violence (Gelles & Straus, 1988).

Our findings suggest an indirect effect of husbands' stress and frustration on the likelihood of physical wife abuse. The family process variables we examined appear to mediate much of the impact of stress. Stress may negatively affect marital and family relations which may, in turn, precipitate physical wife abuse. Like stress, alcohol abuse does not have a significant effect on wife abuse when controlling for the quality of marital and family relations. Both stress and alcohol abuse appear, though, to weaken marital companionship. Excessive drinking among Thai husbands may provoke marital conflict, a pattern documented in studies of couples in the United States (Hotaling & Sugarman, 1990). Conflicts over alcohol abuse may also affect marital instability, indirectly leading to a higher likelihood of wife abuse.

As indicators of strained or hostile interaction between spouses, marital instability and conflict are strongly related to wife abuse, even controlling for alcohol abuse, stress, and social structural conditions. These findings corroborate previous research linking wife abuse with verbal marital conflict and marital instability (Edwards et al., 1992; Stets, 1990; Straus et al., 1980) and indicate support for the increased vulnerability of wives in marriages that are problematic or deteriorating. Although ignored in most research on wife abuse, the quality of parent-child relations also is significantly associated with the occurrence of wife abuse, providing crucial evidence for the interdependence of marital and family relationships. These relationships, furthermore, are likely to be reciprocal. Men who beat their wives also are likely to beat their children (Straus & Gelles, 1989); both of these interaction patterns adversely affect parent-child relationships. Collectively, these findings attest to the importance of proximate family experiences--low levels of marital interaction, communication, and positive affect, high levels of marital conflict, and demands and stressors associated with parent-hood--in explaining why husbands physically assault their wives.

Family change stemming from urbanization and other larger societal forces may be related to increases in wife abuse. An important change occurring in urban Thailand and other developing countries is the shift in family structure from three-generational households to nuclear families. This alteration may precipitate a form of family isolation and a lack of kin and social support that may be vital to reducing wife abuse. It will be important to monitor whether urbanization and industrialization of developing countries lead to a greater emphasis on monetary resources and socioeconomic status as measures of success for men. Should this occur, we may expect increases in husbands' stress, marital tension, family conflict, and wife abuse. Further, it appears that a social prescription for harmony and compassion based on societal religious beliefs offers little protection for Thai wives, at least in an urban context. Perhaps it even fosters a societal denial of the pervasiveness of violence, which in itself may lead to higher rates of violence against women (Baber & Allen, 1992). These relationships require further examination in Thailand, as well as in other developing societies.

In sum, our findings demonstrate the predictive ability of a model that integrates both social structural and social psychological variables, linking macrolevel structural constraints to microlevel processes. The model examined here receives strong empirical support and provides theoretical direction for explaining wife abuse. Yet, despite the importance of the different model components identified here, considerable variance in the occurrence of wife abuse remains to be explained, suggesting that much more attention needs to be devoted to identifying other factors associated with wife abuse. Research should explore other social structural and social psychological variables, such as altitudinal expectations concerning marital roles, methods of resolving marital conflicts, power imbalances in marital relationships, and normative approval of violence, all of which are colored by patriarchy and appear to be associated with wife abuse. Attention must be devoted to explaining why marital tensions and disagreements lead husbands to beat their wives. The interdependence of marital and family relations should be more extensively investigated, and attempts should be made to disentangle aspects of socioeconomic status and working conditions that impinge on marital and family relations. Perhaps most importantly, researchers need to diligently examine, develop, and empirically assess theories used to explain spousal violence in both Western and non-Western societies. Only then will we begin to understand why wife abuse occurs, how it is used to keep women oppressed in their families, and what may be done to prevent a form of violence that results in so many injuries and deaths for women throughout the world.

KEY WORDS: family violence, marital conflict, wife abuse.

TABLE 1 ZERO-ORDER CORRELATIONS, MEANS, AND STANDARD DEVIATIONS FOR THE VARIABLES IN THE PROPOSED

Legend for the Chart:

A - 1
B - 2
C - 3
D - 4
E - 5
F - 6
G - 7
H - 8
I - 9
J - 10
K - 11
L - 12
M - 13

A	B	C	D	E
F	G	H	I	
J	K	L	M	
1. Socioeconomic status				
1.0	--	--	--	--
--	--	--	--	
--	--	--	--	
2. Occupational prestige difference				

.299[b]	1.0	--	--	--
--	--	--	--	
--	--	--	--	
3. Educational attainment difference				
.212[b]	.098[a]	1.0	--	--
--	--	--	--	
--	--	--	--	
4. Number of children				
-.054	.077	.054	1.0	--
--	--	--	--	
--	--	--	--	
5. Years married				
-.045	-.009	.054	.244[b]	1.0
--	--	--	--	
--	--	--	--	
6. Psychological stress				
-.056	.012	.026	-.001	-.096[a]
1.0	--	--	--	
--	--	--	--	
7. Felt demands				
-.110[b]	.004	.041	.109[b]	-.036
.326[b]	1.0	--	--	
--	--	--	--	
8. Alcohol abuse				
-.058	-.001	.035	-.049	-.032
.242[b]	131[b]	1.0	--	
--	--	--	--	
9. Parent-child relations				
.003	-.002	.040	-.014	-.054
-.100[a]	-.055	.001	1.0	
--	--	--	--	
10. Marital companionship				
.170[b]	.050	-.008	-.109[b]	-.103[a]
-.088[a]	-.010	-.019	.212[b]	
1.0	--	--	--	
11. Marital instability				
-.124[b]	-.028	.052	.038	-.062
.353[b]	.249[b]	.255[b]	-.054	
-.179[b]	1.0	--	--	
12. Verbal marital conflict				
-.10[a]	-.009	.036	.040	-.072
.380[b]	.311[b]	.338[b]	-.066	
-.104[a]	.481[b]	1.0	--	
13. Wife abuse				
-.153[b]	-.019	.024	-.005	-.053
.165[b]	.123[b]	.120[b]	-.097[a]	
-.084[a]	.396[b]	.384[b]	1.0	
Mean				
-.028	11.007	1.089	1.910	11.446
7.544	3.479	1.992	3.572	

9.233	1.552	4.200	.195	
Standard deviation				
2.365	24.809	3.581	1.105	6.484
4.972	2.483	1.738	.602	
2.854	1.014	3.58	6.397	

Note: Pearson's r is the correlation coefficient presented. The correlations are based on a pairwise deletion of cases with sampling sizes ranging from 582 to 619.

a p < .05. b p < .01. c p < .001.

TABLE 2 LOGISTIC REGRESSION FOR THE INTEGRATED MODEL TO EXPLAIN PHYSICAL WIFE ABUSE

Legend for the Chart:

A - Predictor Variables
B - Structural (Step 1)
C - Intrapersonal Stress (Step 2)
D - Family Process (Step 3)
E - Integrated (Step 4)

A	B	C
	D	E
Structural		
Socioeconomic status	-.211 (1.236)[c]	-.186 (1.205)[c]
	-.171 (1.187)[b]	-.167 (1.182)[b]
	-.033	-.029
	-.027	-.026
Occupational difference	.004(1.004)	.003 (1.003)
	.004(1.004)	.004 (1.004)
	.001	.001
	.001	.001
Educational difference	.052 (1.054)	.046 (1.047)
	.036 (1.037)	.033 (1.034)
	.008	.007
	.006	.005
Intrapersonal stress		
Psychological stress	--	.066 (1.068)[c]
	.019 (1.019)	-.008 (1.008)
	--	.010
	.003	-.001
Felt demands	--	.055 (1.056)
	.015 (1.016)	.028 (1.029)
	--	.009
	.002	-.004
Alcohol abuse	--	.108 (1.114)
	.033 (1.034)	-.048 (1.050)
	--	.017
	.005	-.008
Family process		
Parent-child relations	--	-
	-.367 (1.444)[a]	-.360 (1.433)
	--	--

	-.058	-.057
Marital companionship	--	--
	.018 (1.018)	.028 (1.028)
	--	--
	.003	.004
Marital instability	--	--
	.717 (2.048)[c]	.559 (1.749)[c]
	--	--
	.113	.088
Verbal marital conflict	--	--
	--	.201 (1.222)[c]
	--	--
	--	.032
Control variables		
Number of children	-.032 (1.033)	-.044 (1.045)
	-.084 (1.088)	-.108 (1.115)
	-.005	-.007
	-.013	-.017
Years married	-.023 (1.023)	-.016 (1.016)
	-.013 (1.013)	-.010 (1.010)
	-.004	-.002
	-.002	-.002
Model chi-square		
Chi-square	19.557[b]	38,897[b]
	88.729[b]	117.773[b]
Degrees of freedom	5	8
	11	12
Degree of change	--	+19.340[b]
	+49.832[b]	+29.044[b]
	--	+3
	+3	+1
n	582	578
	575	575

Note: Unstandardized parameter estimates are listed first, antilogs are noted in parentheses, and proportional effects are presented below parameter estimates.

a p < .05. b p < .01. c p < .001.

TABLE 3 REGRESSION COEFFCIENTS FOR STRUCTURAL VARIABLES ON MEASURES OF INTR APERSONAL STRESS

Legend for the Chart:

A - Independent Variables
B - Dependent Variables; Psychological Stress
C - Dependent Variables; Felt Demands
D - Dependent Variables; Alcohol Abuse

A	B	C	D
Socioeconomic status	-.178 (-.084)	-.140[b] (-.130)	-.057 (-.077)
Occupational difference	.006 (.032)	.003 (.028)	.002 (.022)

Educational difference	.085 (.062)	.047 (.067)	.033 (.068)
Control variables			
Number of children	.080 (.016)	.261[a] (.106)	-.093 (-.055)
Years married	-.077[a] (-.101)	-.025 (-.O64)	-.004 (-.014)
N	582	579	581
R^2	.017	.030[b]	.010
Note: Ordinary least squares regression was used to estimate the regression coefficients. Standardized regression coefficients are presented in parentheses.			
a p < .05. b p < .01.			

TABLE 4 REGRESSION COEFFICIENTS FOR STRUCTURAL VARIABLES ON MEASURES OF FAMILY PROCESS

Legend for the Chart:

A - Independent Variables
B - Dependent Variables; Parent-Child Relations
C - Dependent Variables; Marital Companionship
D - Dependent Variables; Marital Instability
E - Dependent Variables; Verbal Conflict

A	B	C
	D	E
Socioeconornic status	-.001	.202[c]
	-.066[c]	-.130[a]
	(-.003)	(.166)
	(-.154)	(-.092)
Occupational difference	-.001	.002
	.000	.002
	(-.007)	(.016)
	(.006)	(.012)
Educational difference	.005	-.030
	.029[a]	.060
	(.032)	(-.037)
	(.104)	(.066)
Control variables		
Number of children	.005	-.205
	.027	.109
	(.008)	(-.073)
	(.027)	(.034)
Years married	-.007	-.036
	-.014[a]	-.042
	(-.071)	(-.080)
	(-.087)	(-.082)
n	580	582
	581	582
Rx^2	.006	.045[c]
	.033[b]	.016
Note: Ordinary least squares regression was used to estimate these regression coefficients. Standardized		

regression coefficients are presented in parentheses.
a p < .05. b p < .01. c p < .001.

DIAGRAM: FIGURE 1. EMPIRICALLY SUPPORTED MODEL LINKING STRUCTURAL, STRESS, AND FAMILY PROCESS VARIABLES TO THE OCCURRENCE OF PHYSICAL WIFE ABUSE

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