

DOMESTIC VIOLENCE AND WOMEN'S MENTAL HEALTH IN CHILE

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Domestic violence against women is a pervasive, global health problem. This study investigates the correlates and psychological outcomes of domestic abuse among women in a semi-industrial country. The participants included 215 mothers residing in working-class communities located on the outskirts of Santiago, Chile. We utilized structural equation modeling to test the hypothesis that poverty and other structural inequalities would be related to incidents of domestic abuse in Chile, as they are in the United States. Our results suggest that lower socioeconomic status, even within poor communities, and stressful life events have a direct relationship to domestic conflict. Domestic abuse was, in turn, associated with women's mental health such that greater domestic conflict was related to higher reports of depressive affect and symptoms of posttraumatic stress disorder. The importance of identifying similarities and differences in the occurrence of domestic violence in developing countries as compared to industrialized countries is discussed.

Violence against women is a pervasive, global problem, extending across national, racial, cultural, and economic boundaries. The repercussions of spousal violence are far-reaching. Indeed, links between domestic violence and serious social, psychological, and health problems are continually emerging. On a broader scale, "The sequelae of violence against women will impact future generations, each nation's development and productivity, and the sense of cultural preservation, social harmony, and societal integrity in a multiplicity of different settings" (Fischbach & Herbert, 1997, p. 1161). A 1993 World Development Report held

domestic violence and rape against women accountable for significant rates of morbidity and mortality worldwide (Fischbach & Herbert, 1997). Further, growing evidence indicates that children who witness domestic abuse become more susceptible to social and emotional difficulties (Anderson & Cramer-Benjamin, 1999; Graham-Bermann & Levendosky, 1998; McCloskey, Southwick, Fernandez-Esquer, & Locke, 1995). Thus, in recent years, policy makers have identified domestic violence as a global health concern, deserving a high priority on the human rights agenda (Carrillo, 1991; Fischbach & Herbert, 1997; Perilla, 1999).

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Domestic Violence Rates in the U.S. and Chile

Population-based surveys in the United States indicate that 21–30% of women will be beaten by a male partner at least once in their lives (Browne, 1993; Fischbach & Herbert, 1997; Sato & Heiby, 1992). Results from the relatively few studies specifically investigating domestic violence among Latinos in the United States present a rather mixed picture (McCloskey et al., 1995). Some studies report that Hispanic Americans have among the highest rates of violent spousal behavior in comparison to non-Hispanic Whites, while other studies provide contradictory evidence (Jasinski, 1998; Jasinski, Asdigian, & Kaufman Kantor, 1997; Kaufman Kantor, Jasinski, & Aldarondo, 1994; Krishnan, Hilbert, VanLeeuwen, & Kolia, 1997; Sorenson, 1996; Sorenson & Telles, 1991; Torres, 1991; Van Hightower &

Gorton, 1998; Vasquez, 1998; West, 1998). Methodological concerns, such as absence of standard measures, reliance on samples of convenience, clumping together of all Latino subgroups, and a lack of Spanish-speaking interviewers, necessarily complicate any comparisons regarding rates of domestic violence (Sorenson, 1996; Sorenson & Telles, 1991; West, 1998).

Similar to other countries, family violence is a widely prevalent and serious problem in Chile (Bacigalupe, 2000). Most instances of domestic abuse occur in private, hidden from public view. In fact, domestic violence in Chile is commonly referred to as *la violencia privada*, the private violence (McWhirter, 1999). Thus, it is important to note that domestic violence will most likely be underreported in research studies. Nevertheless, recent studies reveal high rates of domestic abuse in Chile. In a random sample of 1,000 urban and economically diverse Chilean women, one out of three women reported experiencing some form of psychological or emotional abuse with her current partner, and one out of four women reported being beaten by their partners (Larrain, 1994). Another survey conducted in Chile's capital city, Santiago, found that 80% of the women reported having suffered physical, emotional, or sexual abuse by a male partner or relative in their homes (Carrillo, 1991).

Under the military dictatorship of Pinochet (1973–1988), state-sponsored violence and brutality often intruded upon Chilean family life (Bacigalupe, 2000), thereby modeling for many couples an expression of repressive, patriarchal authority via violent means. Until 1989, the Civil Code of Chile legally sanctioned husbands' ownership and authority over their wives (McWhirter, 1999). Despite recent changes in the Civil Code, Chile remains a fundamentally conservative, patriarchal, Catholic country. It is the only Western country where divorce remains legally prohibited, and the Catholic Church maintains a vast influence on social life and norms (Krauss, 1999; McWhirter, 1999). Authoritarian male dominance in society and civil institutions is consistent with the kinds of ideologies that predict spousal violence (Kaufman Kantor et al., 1994; West, Kaufman Kantor, & Jasinski, 1998). Hence, several feminist scholars in Chile posit that sociocultural norms in their society sanction men's use of violence against women (Caceres, 1993).

Risk Factors for Domestic Abuse

It is clear that domestic violence occurs in families at all economic levels, and researchers have identified several common factors that contribute to a couple's greater susceptibility for domestic abuse in the U.S. and other countries. These include low socioeconomic status, a generational presence of domestic violence in the family of origin, high stress levels, social isolation, a partner's abuse of alcohol, and a woman's pregnancy status (Berenson, Stiglich, Wilkinson, & Anderson, 1991; Jasinski et al., 1997; Natera, Tiburcio, & Villatoro, 1997; Perilla, 1999; Perilla, Bakeman,

& Norris, 1994; Urzua, Ferrer, Gutierrez, & Larrain, 2001; Van Hightower & Gorton, 1998; Vasquez, 1998; West, 1998). It is important to note that Hispanic Americans are more likely to experience the structural and economic inequalities (e.g., poverty, unemployment, low educational attainment) that place people at greater risk for spousal violence (Jasinski et al., 1997; Kaufman Kantor et al., 1994; Vasquez, 1998; West, 1998). Indeed, using data from the National Alcohol and Family Violence Survey of 1,970 people (including 846 Latinos), West and colleagues (1998) found that battered Latinas in the United States were significantly younger, less educated, and more likely to live below the poverty line than battered Anglo women.

Since the present study was undertaken, a few large surveys of Chilean women have been conducted. A recent Chilean investigation surveyed 1,358 women from the Region Metropolitana (Santiago and outskirts), an entirely urban area, and 1,363 women from the Region de la Araucania, an area including both urban and rural settings in the south of Chile (Urzua et al., 2001). Among this large sample of Chilean women, ages 15–49, 32% of the women from the Region Metropolitana and 25% of the women from the Region de la Araucania reported experiencing physical violence in their marriages or relationships; additionally, 43% and 42%, respectively, reported experiencing psychological forms of abuse. In addition, there was a greater percentage of domestic violence among women from lower socioeconomic backgrounds, with partners described as heavy drinkers, and in cohabiting relationships (compared to married women).

The Psychological Effects of Domestic Violence on Women

Numerous studies in the United States have linked domestic violence with a host of adverse mental health outcomes, including depression and posttraumatic stress disorder (PTSD). Most studies are cross-sectional in nature and survey shelter samples or women who are in immediate crisis at domestic violence shelters, community agencies, or hospital emergency rooms. At such sites, it is not surprising to find that women are particularly distressed given the proximity in time to a crisis situation. Consequently, a great deal of research affirms that women who are recently beaten endorse many depressive symptoms (Campbell, Sullivan, & Davidson, 1995; Perilla et al., 1994; Sackett & Saunders, 1999; Sato & Heiby, 1992). Many of the women in these studies report severe instances of physical abuse. For example, in one study of 136 battered women, 71% reported that their partners had kicked, bitten, or hit them with a fist in the past year (Sato & Heiby, 1992). Accordingly, as the severity of physical violence escalates, so too do women's depressive symptoms (Cascardi & O'Leary, 1992). Campbell and colleagues (1995) implemented an alternative research design, assessing depressive symptoms in 141 women immediately after leaving a shelter, 10 weeks thereafter, and

again 6 months later. Over time, there was some decline in women's depressive symptoms. Whereas 83% of the women reported at least mild depressive symptoms upon leaving a shelter, 58% continued to be depressed at the 10-week and 6-month follow-up. Accounting for prior levels of depression, those women who reported physical abuse, little control over their lives, and little satisfaction with social supports were more depressed at the 6-month follow-up.

Fischbach and Herbert (1997) underscore the importance of studying the relation between spousal conflict and women's mental health in low-income and developing countries specifically. According to a World Bank study, depressive disorders accounted for almost 30% of the disability resulting from mental disorders among women in developing countries (World Health Organization, 2000). Moreover, depression is ranked as the fifth highest illness burden for women worldwide (Desjarlais, Eisenberg, Good, & Kleinman, 1995). In general, little research has occurred in the area of domestic violence and women's psychological well-being in developing countries. However, the results, from recent surveys of Chilean women, point to the damaging toll domestic violence exacts on women's psychological well-being. A far greater number of depression-like symptoms were reported among women in physically and sexually violent relationships as compared to those women in relationships with no violence or with psychological violence (Urzua et al., 2001).

Chronically abusive home situations create an environment of ever-present trauma for many women, and it is thereby not surprising that PTSD symptoms are often identified as part of the psychological sequelae of intimate partner violence (Dutton & Goodman, 1994; McCloskey et al., 1995; Mertin & Mohr, 2000; Saunders, 1994). The cri-

teria for a PTSD diagnosis fall into three symptom clusters: intrusive symptoms, avoidance symptoms, and arousal symptoms. In a study of 100 Australian women at battered women's shelters, Mertin and Mohr (2000) reported that 45% of the women met the DSM IV criteria necessary to receive a diagnosis of PTSD. Compared to the other abused women, the women with PTSD reported higher frequencies of physical, sexual, and verbal abuse and were more likely to believe that their partner might kill them. Additionally, meeting the PTSD diagnostic criteria was associated with having a partner with an alcohol problem. In another study of 192 women seeking help for domestic violence in the U.S., 60% met the criteria for a diagnosis of PTSD (Saunders, 1994). The most common symptoms reported among the women in Saunderson's (1994) study covered all three symptom clusters; commonly endorsed items included intrusive memories of the abuse, avoiding reminders of the abuse, hyperarousal (e.g., feeling jumpy), and nightmares.

The Current Study

The overall objective of the present study is to explore the correlates and the psychological aftermath of domestic abuse among women in an urban area of a semi-industrial country, specifically Santiago, Chile. Our conceptual model, illustrating hypothesized relations for predictors of domestic abuse and related psychological outcomes, is presented in Figure 1. Because poverty and the concomitant stresses of structural inequalities (e.g., unemployment) have been linked to increased levels of partner violence among Latinos in the United States (Jasinski et al., 1997; Kaufman Kantor et al., 1994), we expect that similar socioeconomic,

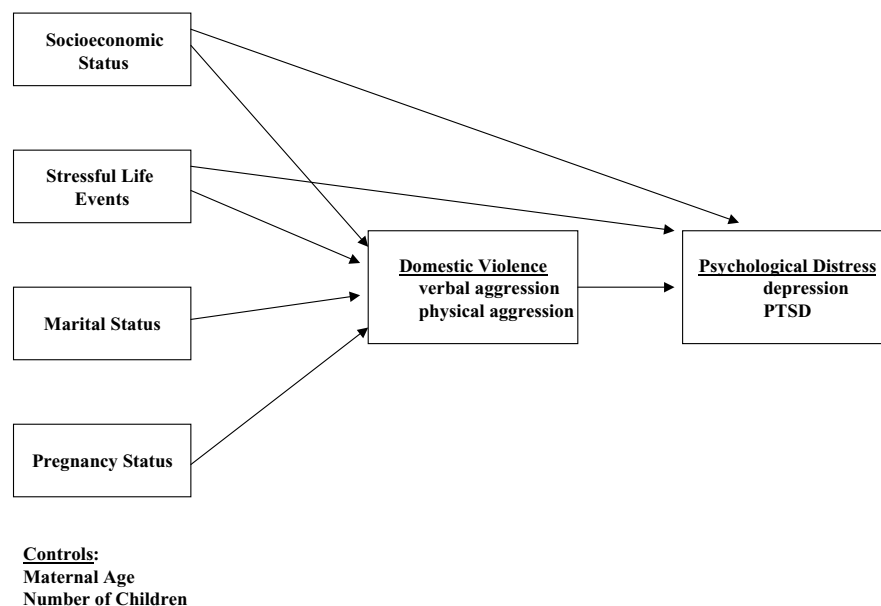


Fig. 1. Conceptual model of risk factors associated with domestic conflict and the psychological effects of domestic abuse.

structural inequalities will be related to domestic abuse in a semi-industrial country.

First, we hypothesize that lower socioeconomic status and higher levels of life stress will predict greater reports of domestic conflict. Second, given the prior findings of a large, Chilean study (Urzua et al., 2001), we expect that nonmarital status will be related to more domestic abuse. Finally, we hypothesize that a woman's current pregnancy status will also predict greater amounts of domestic violence. Psychologists have speculated that pregnancy status is a risk factor of physical abuse due to men's frustration and anger toward the fetus and changes in family life (Berenson et al., 1991; McFarlane, Wiist, & Watson, 1998).

In keeping with the literature, the second half of our model predicts that higher rates of verbal and physical aggression between partners will be related to mothers' poorer psychological well-being, as measured by depressive affect and symptoms of PTSD. Additionally, we expect that the presence of any amount of physical aggression will have a damaging psychological impact on mothers. In comparison to mothers in relationships without physical aggression, we expect that mothers who experience physical aggression will report more symptoms of depression and PTSD. Finally, we also expect that lower socioeconomic status and more stressful life events will be directly related to increased levels of psychological distress. Indeed, low socioeconomic status and negative life events are consistently associated with poor psychological functioning in clinical and community samples (Hammen, Ellicott, Gitlin, & Jamison, 1989; Mazure, Bruce, Maciejewski, & Jacobs, 2000; McLeod & Kessler, 1990).

METHOD

Sample

Participants in this study were 215 mothers who were involved in relationships at the time of the study and who lived in impoverished, working-class communities on the outskirts of Santiago, Chile. Most of the families resided in very small, prefabricated concrete homes or homes assembled with movable wooden panels, sometimes patched with cardboard. There was an average of five people ($SD = 1.7$) living in the home. The communities were generally homogeneous in ethnic origin of mixed Spanish and Indian descent. Mothers had an average age of 34 years ($SD = 7.3$) at the time of the follow-up and a mean of two children ($SD = 1.2$). The women represented a highly impoverished group of mothers, and though literate, the majority (70%) did not have a high school degree. Not surprisingly, since divorce is legally prohibited in Chile, most women were married. Troubled Chilean couples rarely attempt divorce; rather, married couples simply separate, and many adults go on to live with new partners outside of legal marriages. All of the mothers in our sample had a male partner at the time of the study. The majority of the participants, 73% of the mothers,

reported being married and living with their spouse, 21% reported living with a partner to whom they were not married, and 6% of the mothers had partners with whom they did not live. Most identified themselves as homemakers, and only 26% were employed, working for an income.

Procedure

Data collection procedures were originally determined by a larger, longitudinal study on infant iron deficiency anemia and infant development in Chile (Lozoff et al., 2003). Mothers and infants were recruited for the first wave of the original study while attending routine pediatric care visits at community-based medical clinics between 1991 and 1996. Eligibility criteria included uncomplicated deliveries with healthy newborns, residence within four communities on the southeastern outskirts of Santiago, a stable and literate caregiver (usually the mother), and no other infant under 1 year of age living in the same household. Additional criteria for participation included the absence of iron deficiency anemia at 6 months of age and the availability of a caregiver to bring the infant to appointments. Refusal and dropout rates totaled 6.0%, and attrition after randomization was 7.8%. A total of 1,657 infants participated in the first phase of the original study. The participants for the present study represent a subsample of the women who were participating in the 5-year follow-up of the larger, original study on infant iron deficiency (Lozoff et al., 2003). Seventy percent of the original sample participated in the 5-year follow-up. Of the original sample, 24% had moved and could not be located and approximately 6% declined further participation or repeatedly missed scheduled appointments. Mothers who were participating in the last years of the follow-up study during 2000–2002 were interviewed for the present study on domestic violence.

For this study, mothers were interviewed by a trained Chilean clinical psychologist, a bilingual Latina psychologist from the U.S., and a bilingual Latina clinical psychology doctoral student from the U.S. The majority of the interviews occurred at the Instituto de Nutricion y Tecnologia de los Alimentos (INTA), a research institute of the University of Chile. Mothers and their children received free transportation to and from INTA for their participation in the second phase of the larger study. A smaller group of these mothers were also interviewed in their homes. All of the women were interviewed in private, away from the presence of other family members, in order to protect them from incurring any further abuse as a result of their participation in this study. Interview measures for this study took approximately 20–30 minutes to complete.

Measures

Spanish versions of our measures were used when available. All other measures were translated into Spanish by a native Spanish speaker and then back-translated by a Chilean psychologist. Adjustments were made to the

original translations to accommodate subtle regional differences in the Spanish spoken by Chilean women.

Socioeconomic status. As an indicator of socioeconomic status, we utilized the Graffar Specific Index, a widely used instrument in Chile that was developed to be especially sensitive to extreme poverty (Alvarez, Wurgaft, & Salazar, 1982). In Chilean research, the Graffar Specific Index has detected significant differences within apparently homogeneous groups of poor Chilean families. This measure consists of 13 items that include questions about number of people in the home, head of household's occupation and educational level, property ownership, type of housing construction, major household possessions, and characteristics of the home's kitchen, water supply, and sewage. Total scores range from 13 to 65, with higher scores reflecting poorer socioeconomic status conditions.

Stressful life events. Negative life events were assessed by a measure that asks mothers whether they have experienced any of 19 stressful life events in the past 12 months. Weinraub and Wolf (1983) modified the original version of Holmes and Rahe's (1967) Social Readjustment Rating Scale (SRRS). The original SRRS contained a checklist of 43 potentially stressful life events. For the present study, Weinraub and Wolf's modified checklist was condensed to include only those items thought to be most salient to our sample of poor, Chilean mothers. Stressful life events included items such as the death of a nuclear family member or relative, the serious illness of a nuclear family member or relative, unemployment, and legal problems. Additionally, two items that referred to interpersonal conflict within the home were eliminated from our measure. The total stress score is a sum of all possible 19 items experienced by the mother.

Marital status. The interview asked mothers to identify all the marital categories that described their current status, so that a woman could identify herself as both currently married and in a cohabiting relationship with a different partner. For the purposes of this analysis, women were categorized as married only if they were living with their spouse. If they had previously been married, but were currently living with another partner, they were classified as "cohabiting with a male partner." Marital status was a dummy variable that coded mothers who were married and living with their spouse as 1 and all other mothers (those cohabiting with a male partner or in non-cohabiting, serious relationships with a male partner) as 0.

Pregnancy status. Mother's current pregnancy status, at the time of the interview, was dummy coded for currently pregnant as 1 and not pregnant as 0. At the time of the study, 10% of the mothers clearly identified themselves as being pregnant.

Domestic violence. Spousal conflict was measured with the verbal and physical subscales of the widely used Conflict Tactics Scale (CTS; Straus, 1979). Women were asked to recall how often they and their partners engaged in each of 14 tactics when they had disagreements in the past year. The frequency of each tactic was rated on a 6-point scale, ranging from 0 (*never*) to 5 (*more than once a month*). For the purposes of our study, we include only scales of verbal and physical aggression, reflecting the extent to which women were subjected to these tactics by their partners. Using factor analytic techniques, Straus proposed three subscales—reasoning, verbal aggression, and physical aggression—and reported adequate internal consistency and good indications of content and construct validity.

Because the CTS was normed on an American sample and cultural differences may influence the way in which women interpret the measure's questions, factor analyses and reliability tests were conducted on this scale for our sample. Like Straus's findings, the results of a principal component analysis suggested the presence of a verbal aggression and a physical aggression component. Originally, an item asking about the threat of physical violence was included in the physical aggression scale (Straus, 1979). This decision was based on factor analyses that indicated that this item correlated more highly with the physical aggression component. At that time, Straus hypothesized that the threat of violence most likely indicated the presence of actual violence. However, Straus (1990) more recently recommended that the item referring to the threat of physical violence be scored as part of the verbal aggression scale. Straus now argues that this item most clearly distinguishes between threat and actual violence. The verbal and physical aggression scales used in this study correspond to Straus's (1990) most recent recommendations.

The verbal aggression subscale contains six items such as arguing heatedly, yelling or insulting, refusing to talk, stomping out of the room, throwing something (not directed toward the other person), and threatening to throw something. The Cronbach's alpha for the verbal subscale was .70 for our Chilean sample. The physical aggression subscale consists of four items that ask about throwing something at the partner, pushing or grabbing, hitting, and hitting with a hard object. The physical aggression subscale had an alpha of .79 in our sample.

Psychological distress. Psychological distress was assessed with the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) and a 20-item questionnaire of PTSD symptoms (Kilpatrick, Resnick, Saunders, & Best, 1989, 1998). We used the Spanish version of the CES-D, which closely resembles the English version. The CES-D is not designed to provide a clinical diagnosis of depression, rather it assesses the degree of depressive symptoms. This measure asks mothers to rate the extent to which they experienced 20 symptoms of psychological distress, such as hopelessness, loneliness, loss of appetite, and sleep

disturbance, in the past week. Mothers rate each symptom on a 4-point Likert scale ranging from 0 (*rarely or none of the time*) to 3 (*most or all of the time*). Sample items include, “I felt that everything I did was an effort,” “I felt sad,” and “I thought that my life had been a failure.” Total scores range from 0 to 60, with higher scores reflecting greater depressed mood. A cut-off score of 16 or above is typically used to distinguish between people with and without severely dysphoric moods (Weissman & Lucke, 1995). The CES-D is a widely used instrument in cross-cultural research, demonstrating sound reliability and validity across ethnic groups within the United States and internationally (Naughton & Wiklund, 1993; Roberts, Vernon, & Rhodes, 1989). On the whole, studies demonstrate that the CES-D has high internal consistency, acceptable test-retest reliability, and good construct validity. In our sample, the CES-D had a Cronbach’s alpha of .93.

In evaluating PTSD symptoms, mothers were asked to report whether they had experienced a variety of symptoms, falling into the three PTSD diagnostic classifications of re-experiencing trauma, avoidance of traumatic material, and increased arousal symptoms. The presence or absence of symptoms, such as nightmares, disturbing memories, flashbacks, startle reactions, and difficulty concentrating, was considered over the past 2-week time period. Symptom items are consistent with those listed in the Diagnostic and Statistical Manual of Mental Disorders, 3rd Ed. Rev. (DSM-III-R) and reliably diagnose PTSD based on DSM-III-R criteria (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). Additionally, other researchers have reported good concurrent validity with this measure (Resnick et al., 1993). In the present sample, this measure had an alpha of .85.

Maternal age. Maternal age indicated the mother’s chronological age in years.

Number of children. This item is the number of biological children reported by the mother.

Data Analyses

Bivariate correlations and *t* tests were used for preliminary, descriptive statistical analyses. To test the hypothesized relations between predictors of domestic violence and maternal psychological distress, we used structural equation modeling (SEM), specifically running our analyses with the AMOS 4.0 statistical package (Arbuckle, 1999). The covariance matrix was analyzed in these analyses. In the illustration of our results in Figure 2, circles are used to represent latent variables and observed variables are presented in squares. Parameter estimates were based on maximum likelihood estimation and all analyses controlled for mother’s age and number of biological children.

RESULTS

The mothers in our sample represented a rather distressed group of women, reporting high rates of depressive affect and PTSD symptomatology. Means, standard deviations, and the correlation matrix for all of the variables included in our model are presented in Table 1. Mothers reported a mean score of 20.4 on the depression scale, with a standard deviation of 14.2. A full 50% of the women received elevated CES-D scores, above the conventional cut-off of 16 used to distinguish people with high rates of depressive affect. Mothers who were more depressed tended to have more children and also reported significantly more stressful life experiences. On the measure of PTSD symptoms, mothers acknowledged experiencing an average of 11.1 symptoms (*SD* = 4.9), out of a possible total of 20 symptoms.

A large proportion of the mothers (79%) reported incidents of verbal aggression occurring in their relationships

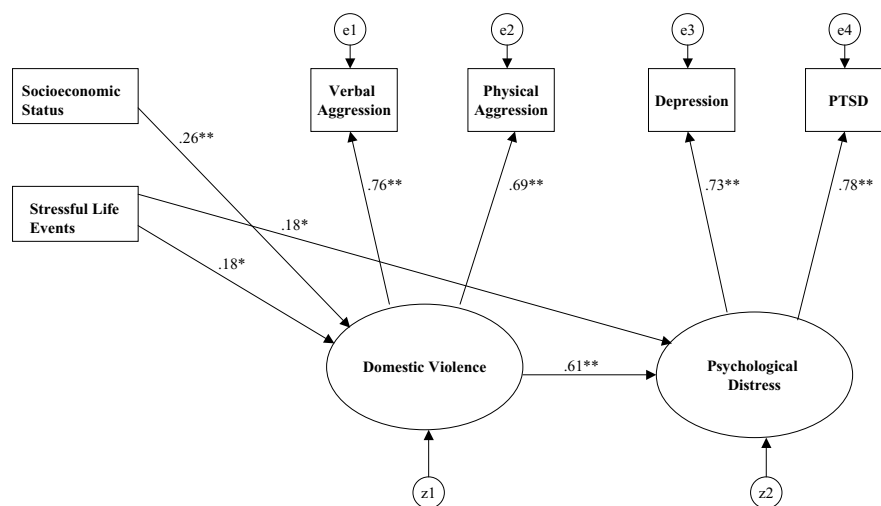


Fig. 2. Results of structural equation model, showing only significant paths with standardized parameter estimates. The notation of ‘e’ refers to measurement error and ‘z’ refers to the disturbance in our outcome measures. **p* < .05. ***p* < .01.

Table 1
Bivariate Correlation Coefficients for All Variables in Model

Scale	<i>X</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1 Socioeconomic status	35.10	7.21	–									
2 Stressful life events	4.11	2.14	.15*	–								
3 Marital status	–	–	–.34**	.05	–							
4 Pregnancy status	–	–	–.03	–.02	.07	–						
5 Maternal age	34.28	7.26	–.21**	.01	.16*	–.16*	–					
6 Number of children	2.61	1.18	.09	.10	–.05	–.04	.45**	–				
7 Verbal aggression	8.25	6.46	.20**	.14*	–.01	–.04	–.04	.11	–			
8 Physical aggression	1.40	3.20	.23**	.23**	–.09	–.10	–.01	.14*	.52**	–		
9 Depression	20.35	14.18	.21**	.24**	.01	–.04	.01	.17**	.35**	.32**	–	
10 PTSD	11.13	4.94	.11	.25**	.06	.08	.00	.13	.44**	.33**	.57**	–

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

over the past year. A substantial but smaller group (31% of the mothers) reported the presence of physical violence in their relationships. As expected, both verbal and physical aggression were significantly correlated with the indicators of psychological distress. More verbal aggression was correlated with greater depressive affect and symptoms of PTSD. Likewise, more reports of physical aggression were significantly correlated with more depression and PTSD symptoms.

In order to examine the smaller group of mothers who reported physical aggression in their relationships, we dichotomized the physical aggression variable and created two groups: one group of mothers who did not report any physical aggression and a second group who reported at least one incident of physical violence. The results of t tests indicated that the group of mothers who reported physical violence was significantly more depressed than mothers who did not report any physical aggression ($t = -4.49$, $p < .001$). Mothers in relationships with physical violence reported a depression scale mean of 26.7 ($SD = 14.9$) in comparison to the mothers with no physical violence who had a mean of 17.2 on the CES-D ($SD = 12.7$). Similarly, mothers in relationships with physical violence experienced significantly more symptoms of PTSD than mothers who reported no physical violence ($t = -5.89$, $p < .001$). Mothers in physically abusive relationships reported an average of 13.9 PTSD symptoms ($SD = 3.8$), compared to the mean of 9.7 symptoms ($SD = 4.9$) reported by mothers without physical violence.

We used SEM to test the hypothesized model presented in Figure 1. Our hypothesized model was evaluated with three fit indices, all of which indicated a good fit of the hypothesized model to the data, although not all of the individual parameter estimates were significant. Whereas the chi-square goodness of fit index is directly related to sample size, a nonsignificant chi-square indicates a good model fit. For our model, $\chi^2(15, N = 215) = 16.845$, $p = .33$. In contrast, the goodness of fit index (GFI) and the Robust Mean Square Error of Approximation (RMSEA) are independent

of sample size. The GFI assesses the relative amount of variances and covariances jointly accounted for by the model. GFI values range from 0 to 1.0 with higher scores above values of .90 indicating a better fit. The RMSEA index measures the amount of residual between the observed and predicted covariance structure, with values less than .05 indicating a close fit (Browne & Cudeck, 1993; Steiger & Lind, 1980). Results from the analysis of our hypothesized model indicate a good fit to the data, GFI = .995 and RMSEA = .024.

The results of the path analysis are displayed in Figure 2; only significant paths in the model are depicted with their corresponding parameter estimates. As shown in Figure 2, many of our hypothesized paths were supported. Consistent with our hypotheses, lower socioeconomic status significantly predicted higher rates of domestic violence. Also as expected, more stressful life events were associated with greater domestic violence. However, contrary to our hypotheses, both marital status and pregnancy status were not significantly related to the presence of domestic violence in mothers' relationships. As predicted, domestic violence was significantly and positively linked to mothers' psychological distress. Whereas socioeconomic status was not directly related to psychological distress, the direct path between stressful life events and mothers' psychological distress was significant. These results indicate that stressful life events are indirectly linked with psychological distress through domestic violence. The direct effect, however, ($\beta = .18$) is stronger in magnitude than the indirect effect, calculated as the product of the standardized effects involved in the indirect path ($\beta = .11$).

DISCUSSION

In this sample of 215 poor Chilean mothers, a large number of women reported experiencing both verbal (79%) and physical aggression (31%) in their relationships with men. These high rates of domestic abuse are in keeping with other surveys of Chilean women (Carrillo, 1991; Larrain,

1994; Urzua et al., 2001). Such high rates of spousal violence may be sanctioned, in part, by Chile's historical legacy of violence and repressive brutality. Consistent with the literature, our findings supported the hypothesized relations that both socioeconomic status and stressful life events are linked to domestic violence. However, marital status and pregnancy status were not associated with domestic abuse. In keeping with numerous findings conducted with samples of women in the United States, domestic violence was directly related to greater psychological distress among our sample of Chilean mothers. Finally, we found that stressful life events had an indirect effect on mothers' psychological distress via the experience of domestic abuse. As couples contend with increasing numbers of difficult life events, it is not surprising that such stressors directly impair psychological well-being and simultaneously increase couples' susceptibility to domestic conflict that is, in turn, also related to psychological distress for mothers.

Consistent with various other investigations, our results indicate that domestic abuse exacts a grave psychological toll on its victims (Campbell et al., 1995; Mertin & Mohr, 2000; Perilla et al., 1994; Sackett & Saunders, 1999; Sato & Heiby, 1992; Saunders, 1994). Indeed, a strong, direct relation between domestic violence and poor maternal mental health emerged in our community-based sample of women, women who were not residents of domestic violence shelters or recipients of crisis counseling. Mothers in relationships with verbal and/or physical aggression displayed increased levels of psychological distress, as evidenced in symptoms of depression and PTSD. Moreover, the women in physically violent relationships demonstrated particularly elevated levels of depressive and PTSD symptomatology.

Many studies have identified low socioeconomic status and high stress levels as risk factors for domestic violence among Latino couples in the United States (Jasinski et al., 1997; Kaufman Kantor et al., 1994). Our results indicate that poverty and the spiraling escalation of negative life events that often accompany poverty increase Chilean women's susceptibility to domestic abuse. Even among this highly impoverished sample of women residing in a semi-industrial country, an increase in economic and sociofamilial stressors was associated with greater reports of domestic abuse. The patterns of domestic violence and the precursors associated with domestic abuse in a semi-industrial country were remarkably similar to those in an industrial country like the United States. Thus, it appears that certain common risk factors or indicators of vulnerability for domestic conflict transcend national, cultural, and racial boundaries. Balancing elevated levels of economic and life stresses when raising young children in poverty may increase couple's vulnerability to spousal violence around the world.

Equally important, however, is the need to identify culturally specific correlates of domestic abuse among spe-

cific racial and ethnic groups in different countries. In the present study, we expected that women in cohabiting relationships would be more susceptible to domestic conflict because they are in relationships that are not legally or socially sanctioned by traditional Chilean culture. Although our results did not support this hypothesis, this may be because our inquiry regarding marital status was not sufficiently clear to the participants. It is possible that some women may have identified themselves as married, choosing only to identify their legal marital status or wishing to avoid disclosure of a cohabiting relationship. Thus, we may have inadvertently underestimated the number of women in cohabiting relationships. Alternatively, this finding may indicate that the strong legal and social sanctions for marriage in Chilean culture do not help protect women from abuse in marital relationships. Like marital status, mothers' pregnancy status was also not related to domestic violence in our study. Culturally specific explanations may account for this. For instance, religious and cultural values regarding the importance of family and children may serve to protect pregnant Chilean women from partners' violence. It is important to note, however, that only 10% of our sample was pregnant at the time of this study. Thus, these findings call for further investigation and replication in future work.

Like all empirical investigations, the present study has several limitations. This study relies on self-report data, which may be biased by memory recall as well as social desirability effects. Women may not readily share experiences of intimate domestic conflict with a university investigator when they are not likely to share these experiences with close friends and relatives. Additionally, the cross-sectional nature of our study means that we cannot make any claims regarding causal relations in our model. Moreover, our measure of domestic conflict does not address sexual violence and more severe types of violence (e.g., with the use of weapons) nor does it inquire about incidents that occurred prior to the last 12 months of a relationship. Our findings regarding PTSD symptomatology must be interpreted with caution because our interview questionnaire did not directly link mothers' reports of PTSD symptoms to incidents of domestic conflict in their relationships. Instead of occurring in conjunction with incidents of domestic abuse, maternal reports of PTSD symptoms might have been linked to other, unidentified trauma experiences.

Another important limitation of the present investigation is that it is theoretically based on models developed in the United States. Ideally, research such as ours would begin with pilot studies or focus groups in order to learn about the specific nature of domestic violence in Chile. Future research must not neglect the importance of preliminary qualitative research and the piloting of measures with the target population. It is unfortunate that the measures used in our study, with the exception of the CES-D, were not validated on a sample of Latin American women prior to our investigation.

A great deal of research is needed to understand the patterns of spousal violence and potential opportunities for creating interventions in developing countries. Future research must investigate factors that mediate the relations between domestic abuse and psychological well-being. By adopting an ecological model in the study of abuse, future work can explore how environmental and familial risk factors are associated with abuse while additionally addressing the experience of other family members, including men who abuse their partners and children who witness the abuse. Further, research in non-Western or nonindustrial countries can help identify and explore the role that culturally specific practices and ideologies play in patterns of spousal violence. Finally, community-based intervention research is of critical importance, because a multitude of barriers impede women from seeking help for domestic abuse. Chilean researchers report that 30% of women from the Region Metropolitana sample and 21% of the women from the Region de la Araucania sample had not told anyone about their experiences with domestic abuse (Urzua et al., 2001). Intervention efforts can empower women by providing safety, enhancing educational and occupational resources, and improving women's psychological well-being. Although the National Service for Women (SERNAM) in Chile established several centers to provide counseling to the victims and perpetrators of domestic abuse in 1990, the first publicly recognized domestic violence shelter in Chile did not open until 1996 (McWhirter, 1999).

Beyond individual clinical interventions, domestic violence cannot be eradicated without the implementation of effective legal, judicial, and law enforcement policies. In 1992 a government task force proposed several legislative and policy recommendations to address domestic violence in Chile. Family violence legislation, proposing sanctions against abuse and simplifying the legal process to protect victims, was finally adopted by the Chilean congressional body in 1994 (Bacigalupe, 2000). Despite this legislative victory, implementation of the proposed changes has been anything but expeditious. The enforcement of laws to protect women against domestic abuse will go far to maintain and promote women's mental health worldwide.

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