

## Abstract

This study takes into account global debates surrounding women's role in development and how access to resources impacts the structures that perpetuate gender inequalities. For example, scholars have argued that women's ownership of and control over resources are linked to gender-based violence. This paper provides a theoretical framework for, and an examination of, the role of land ownership in women's empowerment and receipt of domestic violence that has been posed in the literature but never empirically tested. Household surveys conducted in rural Nicaragua reveal that land ownership is directly related to women's status and power within the marital relationship and to their empowerment and psychological well-being, each of which explained why and how owning land contributed to lower levels of domestic violence. The findings have important implications for the discussion of gender-based violence in the context of development involving land resources, as well as for initiatives that can improve women's well-being and lead to more equitable policies for women.

## Biographies

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## **Promoting Gender Equality Through Development: Land Ownership and Domestic Violence in Nicaragua**

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## INTRODUCTION

In the past decade it has become accepted to evaluate development in terms of human capabilities and, more specifically, there is growing acceptance for the notion that enhancing well-being—which includes living in freedom from violence and abuse—is becoming a crucial aspect of development (Nussbaum and Sen 1993; A. Sen 1999). In particular, the increasing recognition in the development discourse of violence against women has led to the awareness that violence against women is an impediment to development because it impedes women's participation in development projects, hinders effectiveness and efficiency by being costly, and is a violation of basic human rights (P. Sen 1998). Nevertheless, despite the proliferation of gender-focused programs among development organizations, there is limited research that empirically investigates the role of structural interventions in addressing violence against women.

Over a decade ago Bina Agarwal (1994) argued that the issue of domestic violence should be brought more centrally into the debate on development and put forth the idea that women's property status—in other words, women's ownership and control over resources—was linked to domestic violence. However, very little empirical investigation has been conducted to advance this line of research. In one notable exception, Pradeep Panda and Bina Agarwal (2005) reported a link between property ownership and domestic violence in India by demonstrating that women who owned land, a house, or both reported significantly less long-term and current physical violence than their property-less counterparts. Despite these groundbreaking findings, this line of inquiry remains underexplored. Moreover, there has been no investigation into this topic in other developing regions, in particular, in Latin America, where land reform has received a great deal of attention. Empirical examination of this relationship will contribute to the discussion of gender-based violence in the context of development in general and in particular to property ownership and control.

Countries throughout the world report high levels of domestic violence. Although there is still a scarcity of population-based research in many countries, available research suggests that from 10 percent to 60 percent of women in most countries have experienced violence from an intimate partner at least once in their lives (Heise, Ellsberg, and Gottemoeller 1999). Domestic violence, in particular, is becoming widely recognized internationally as a serious problem with grave implications for the physical and psychological well-being of women (WHO 2005). Throughout Latin America, and in Nicaragua in particular, domestic violence has been recognized as a public health problem with national prevalence estimates indicating that between 28 and 69 percent of women in Nicaragua report experiences of domestic violence, indicating a widespread problem (Ellsberg et al. 2001).

This paper investigates the hypothesis that women's land ownership is related to women's receipt of violence in Nicaragua. However, we argue, like the work pioneered by the International Center for Research on Women (ICRW 2006), that it is not simply owning land, rather it is the process that develops as a result of women's altered status within the household that has the critical bearing on their receipt of violence. Based on qualitative interviews with

women landowners in Kerala and West Bengal, the ICRW (2006) proposed a model suggesting that property ownership expands women's negotiating power and enhances their ability to address vulnerability, thereby decreasing levels of domestic violence. However, one limitation of these investigations is that the samples in South Asia were based in communities where bilateral property ownership was normative. In other words, female ownership of land did not necessarily challenge existing gender attitudes and roles. We specifically aimed to test whether land ownership would result in a shift in traditional gender ideology, a shift in intra-household gender relations, and an increase in women's empowerment and psychological well-being, thereby curbing levels of domestic violence.

Until the past two decades, women's ownership of land in Latin America was restricted because of legal and customary laws that prohibited women from being landowners. Changing national policies and current intervention programs promoting women's human rights make this an opportune time for investigating these hypotheses. While similar questions have been put forth by Bina Agarwal in the context of South Asia (1994) and theorized by Carmen Diana Deere and Magdalena Leon (2001) in Latin America, they have yet to be examined empirically in a Latin American country. By examining property ownership, status or power within the marital relationship, and markers of women's empowerment and psychological well-being, this paper will investigate hypotheses that have been posed in the literature but never empirically tested. In short, we propose a framework of pathways by which land ownership influences women's empowerment and receipt of violence. The findings have implications for gender and development theory and for initiatives that can improve women's well-being and lead to more equitable policies for women. The findings also shed light on the mechanisms surrounding women's empowerment.

## **LAND OWNERSHIP: POWER AND DOMINANCE**

A large and growing literature addressing gender-based violence has made use of Heise's (1998) ecological model, which suggests that there are several risk and protective factors of domestic violence that exist at different levels of society. At an individual level, factors include a history of violence in the family of origin; the marital level includes male use of alcohol and male control of household decisions; at the community level, factors include unemployment; and finally, at the societal level, factors include adherence to rigid gender roles and notions of masculinity that are linked to male ownership of women. However, to date, much of the research into domestic violence is highly skewed towards investigating individual and relational factors rather than societal factors that influence women's vulnerability to violence (Heise and Garcia-Moreno 2002). It is imperative that social science researchers move beyond this focus and begin to investigate structural inequities at the societal level.

Indeed, it is well accepted that violence against women occurs in a sociocultural context supported by ideology (Goodman et al. 1993). For example, patriarchy—in which society is organized such that males have a disproportionate amount of power and control—can help explain how violence against women is perpetuated. Institutional inequities promote the social arrangements—the unequal power structures between men and women—that position women in a subordinate status relative to men. Thus, because structural components contribute to the

construction of power and dominance, examining power differentials that exist at structural levels within society is critical to understanding women's vulnerability to violence.

Entrenched inequalities in the distribution of power and resources between women and men create a risk environment that supports high levels of gender-based violence. A large body of international work has established that there are pervasive gender inequities in access to resources and, in particular, to land or property (FAO 2001). Importantly, customary norms and practices in Latin America, and throughout most of the world, are based on recognizing the male head of household as the main authority figure and principle property owner, particularly of land assets (Deere and Leon 2001; FAO 2001). Thus, land issues—who owns land and controls land use—are issues of power and dominance (Deere and Leon 2001; FAO 2004). Therefore, in Latin America and other developing areas, systemic differences in land rights between men and women create structural inequalities that may contribute to the alarmingly high rates of domestic violence for women. In this paper we argue that land ownership is a material basis, or structural inequality, that contributes to the subordination of, and violence against, women. Women's role as landowners therefore challenges these gendered power relations.

In recent years structural interventions have sought to alter the gendered context in which violence against women occurs. Although development projects have begun to shift from the traditional view of household units (headed by a male), the inclusion of women in development programs has largely come through the focus of income-generating programs—most notably micro-credit loaning (Goetz and Sen Gupta 1996). We argue, however, that while income generation that stems from micro-credit loans may improve a household's economic status, women's receipt of the loan, or the labor associated with the loan, does not contest gender relations in the same manner that land ownership does.

Why would land ownership influence gender relations and lead to decreased violence when economic security does not? First, although research suggests that loans may increase women's economic activity, they do little to diversify women's labor, resulting in an adherence to a traditional occupational structure that sustains male dominance (Kabeer 2001). Indeed, it is not outside of cultural norms for women, especially from disadvantaged groups, to work hard and engage in work outside of the home (Kabeer 2005). However, men's disproportionate power in society has led, historically, to women not being viewed as full participants in the public sphere, but rather as reproducers, with their role and contribution considered worthy of ownership and control. Therefore, it is not uncommon that women's labor does not belong to the woman, but falls under the control of her male partner (Bartky 1990). Thus male control of the economic or material output that may stem from women's micro-credit borrowing may maintain and support the domination and control of women and their work. Indeed, in a review of credit programs in Bangladesh, 63 percent of female loan holders reported having only partial, very limited, or no control over the loans they had procured (Goetz and Sen Gupta 1996). In support of the argument that economic activity does not increase women's power and control, Pradeep Panda and Bina Agarwal (2005) found that levels of employment status (unemployed, seasonally employed, and regularly employed) did not affect women's receipt of physical violence, whereas land ownership did, suggesting that economic activity did little to alter the gender dynamics that predict patterns of violence against women. Thus, unequal abilities to exercise control over resources may lay the foundation for power imbalances within the relationship.

We argue that, because ownership of property among women substantially challenges traditional gender roles, it increases women's power and influence within the household and, in turn, provides a stronger base for women's empowerment. Central to this argument is that, as landowners, women need to effectively administer control over their property. In other words, it is not merely possessing the title to a plot of land, but the control or administration of it that contributes to change (Agarwal 1994). Moreover, while benefits of several forms of land ownership are possible (e.g., cooperative farming arrangements), it is important to note that women's effective rights to land (i.e., women functioning independently as decision makers with control over the land) are best insured with individual titles (Agarwal 1994).

As such, we argue that the processes involved in owning and controlling land can transform the conditions in which women can exercise agency and, in turn, be empowered to confront aspects of their subordination. We also argue that not all forms of property have the same influence. Land, unlike other forms of property, has the potential to be income generating and livelihood sustaining. Women can use land as a means of production, rent the land, use it as collateral to borrow money, and/or sell it or give it as an inheritance to children, providing security that a house, for example, does not (Deere and Leon 2001). Moreover, despite a decline in agricultural output by individual farmers in Central America, the dependence on land remains an important source of livelihood in rural areas. In other words, even in the absence of income generation, small plots or back-yard gardening can provide sustenance for the family and reduce the risk of absolute poverty. For these reasons, land ownership is a form of political and symbolic status that is not found with other forms of property or income-generating activities and therefore puts women in a privileged and empowered position.

In sum, the potential for women to reduce their risk of violence remains limited within a sociocultural context that supports gender imbalanced ideology. Ideologically shifting how women are viewed on a societal level—through the process of land ownership—will reposition women and reduce their levels of violence.<sup>1</sup> Because little attention has been paid to the role of property ownership in improving the status of women, this paper will emphasize the ideological aspect of women's position as landowners and examine whether and how property ownership challenges women's roles as they are typically defined. We argue that, while great economic security may be attached to property ownership, it is the psychological perspective of property ownership that empowers a woman to assert control over her life and her body. Despite it being over a decade since Anne Marie Goetz and Rina Sen Gupta (1996) highlighted the lack of evaluations assessing the impact of resource allocation on power relations within the household, little research has explicitly investigated these mechanisms. More specifically, existing investigations have focused on bargaining or decision making as a proxy for empowerment (Hill 2003; Kabeer 1994) and have not adequately assessed women's psychological empowerment or power within the marital relationship. The design of programs aimed at decreasing gender-based violence should be based on an empirically informed understanding of the relations between structural inequities, resource distribution, and power/dominance. We argue that the attention paid to micro-credit loaning in the international development community has been excessive and that evaluation of land ownership needs to move to the forefront of our analysis. Thus, we believe that by linking the processes surrounding the status of land ownership to broader cultural ideologies and to intra-household gender relations and women's empowerment, a greater

understanding can be gained into how the state and development organizations can implement policies which improve women's access to land and enhance their well-being.

## **LAND OWNERSHIP AND EMPOWERMENT PROCESSES**

Feminist scholars argue that women's empowerment and well-being can be enhanced by expanding women's access to resources (Deere and Leon 2001; Razavi 1999). In particular, development that views women as proactive agents and facilitates their access to resources in an attempt to redefine existing power structures may most effectively enhance empowerment. Thus, it is not just an increase in women's ownership of material resources, but the processes that result from having control over them that effectively influences empowerment (Agarwal 1994). As such, we predict that it is not merely the ownership of land that can explain a change in women's receipt of violence, but the resulting *processes* of empowerment that lead to a decrease in domestic violence.

Discussions regarding how women's "empowerment" fits into development processes started in the 1970s. Proliferation of attention to the concept of empowerment is due, in large part, to Amartya Sen's theory of social justice in which he argues that development's goal of increasing the gross national product is inadequate to capture gender inequalities and undermines the importance of empowerment in the development process (A. Sen 1995). Empowerment, or transformation through economic, social, and political structures, has become a focal point for social justice aimed at emancipating women. Empowerment has been defined as a process of "undoing internalized oppression," and therefore, when focused on women, it involves changing the social and cultural norms inherent in patriarchy that sustain women's subordination (Agarwal 1994). Thus, empowerment occurs when a change has taken place in men's traditional domination over women, whether with respect to control over their life options, assets, opinion, or sexuality; and, it is apparent when unilateral decision making is no longer the norm within the family (Deere and Leon 2001). Therefore, changes in structural inequities, along with changes in ideology, could provide the necessary societal reorganization that would lead to a decrease in gender-based violence.

However, it is also important to recognize empowerment as both a state and a process. Women can *be* empowered, but there is also a *process* of empowerment which may be indicated by several related constructs. It has been argued that empowerment increases women's sense of agency, or what has been termed "power within" by feminists (Deere and Leon 2001; Kabeer 1994). Naila Kabeer (1994) argues that, while agency has been operationalized in the social science literature as decision making or negotiation, it is a broader construct that reflects one's ability to define one's goals and act upon them and therefore involves cognitive processes of reflection and analysis. Amartya Sen (1985) similarly defines agency as what the person is free to do and achieve in pursuit of whatever goals or values he or she regards as important. He also highlights that empowerment and agency are distinct constructs from well-being and argues that each have a place in the assessment of development (A. Sen 1985). While empowerment and agency can be viewed as concepts that reflect autonomy and personal liberty, well-being is something that is achieved (e.g., self-esteem). In fact, well-being is often influenced by agency or autonomy. Clearly, being of subordinate status impedes one's ability to function with agency or autonomy. Indeed, Amartya Sen (1995) highlights that traditional gender roles curtail

women's agency by dictating that women's interests lie within the home and not within their person. Thus, in traditional gender arrangements whereby the husband controls decisions in the house, opportunities for empowerment would depend on women's ability to act autonomously. Importantly, empowering processes should enable women to pursue their own agendas which, in the context of traditional gender ideology, may result in challenging gender and power relations. Indeed, Gita Sen and Caren Grown (1987) highlighted that the concept of empowerment may be a strategy for women to change their own lives at the same time that it generates a process of social transformation.

The important question, then, is does land ownership facilitate women's empowerment and agency and strengthen their ability to achieve both psychological and physical well-being within the household? We hypothesize that owning land empowers women because it shifts traditional gender ideology and thereby enhances their ability to exercise control over their own rights—effectively giving them power or empowering them by increasing their control within the household (via intra-household decision making), increasing power and control within the marital relationship, enhancing autonomy and agency, and increasing psychological well-being. Importantly, we are proposing that property status influences receipt of domestic violence, in part, via its influence on psychological well-being. As such, we are arguing that increased psychological well-being enhances women's ability to lower their receipt of violence. We acknowledge that there is a wealth of evidence to suggest, in particular, that violence leads to increased levels of depression, not the other way around (Bonomi et al. 2006); nevertheless, we argue that increased levels of psychological well-being are part of the empowerment process that leads women to experience lower levels of violence.

While there has been considerable theoretical interest within the development literature regarding questions of empowerment, agency, and well-being, there has been little empirical investigation into these exact processes. The empirical gap in the literature surrounding how women's empowerment processes operate may largely reflect a lack of clear-cut definitions and appropriate assessment tools (Goetz and Sen Gupta 1996; Holvoet 2005). Despite increasing attention to issues of empowerment and capabilities in the development literature, current evaluative assessments do not adequately reflect the processes surrounding women's empowerment (Hill 2003). Being able to hold property and exert enough control over one's body to be secure from violence are two of the ten primary capabilities Nussbaum puts forth to define true human functioning or a life worthy of dignity (2003). As such, we believe it is critical to examine factors that promote women's empowerment resulting in enhanced well-being. Generally, despite the complexity involved in the process of empowerment, the majority of investigations and assessments into women's empowerment employ a rather narrow conceptualization by routinely assessing household decision making as an indicator of women's empowerment (Deere and Leon 2001; Holvoet 2005; Kabeer 1999). Furthermore, neither of the gender measures that were introduced in the 1990s to assess the status of women in human development assess empowerment in ways that have been conceptualized in this paper (UNDP 1995). Specifically, the Gender Related Development Index was created to assess inequalities between women and men on factors such as life expectancy, educational attainment, and income. The Gender Empowerment Measure (GEM) was introduced to address the noted gap in assessment measures and is widely acknowledged as a measure of women's agency. However, it assesses gender equality in economic and political participation and decision making, reporting

factors such as the percentage of women in governmental positions and the ratio of female- to male-earned income. Thus, while the GEM is currently held as a model for assessing levels of women's empowerment, we argue that it does not adequately measure empowerment or agency; rather, it measures the outcomes of women's empowerment. As such, we hope to contribute to this literature by more specifically measuring the numerous constructs involved in empowerment: intra-household decision making, power and control within the marital relationship, agency and autonomy, and psychological well-being.

## **WOMEN'S LAND OWNERSHIP: THE NICARAGUA CASE**

Throughout most of the world women have traditionally been excluded from land rights. In many areas, social constructions of gender, combined with cultural practices of restricting women's access to land, have contributed to the continued abuse of women's rights to land ownership (Lastarria-Cornheil 2001). Mechanisms for excluding women have been legal, cultural, structural, and institutional. These restrictions have been interrelated and share core ideologies that are embedded with constructions of masculinity and femininity and the "proper" roles that men and women should assume in public spheres (Deere and Leon 2001). However, women's property rights in some countries have improved, with land titling efforts in several Latin American and Asian countries recognizing women's rights as beneficiaries (FAO 2004). Nevertheless, significant gender disparities in land ownership still exist. In particular, data from five different Latin American countries show that women constitute one-third or less of all landowners (Deere and Leon 2001).

However, of the Latin American countries that have implemented gender-progressive agrarian reform policies, Nicaragua stands out above the rest in terms of female participation (Deere 1985). Since the 1980s a number of steps have been taken in Nicaragua to remove institutional obstacles that traditionally prevented women from gaining access to land and other natural resources. For example, Nicaragua was one of the first signatories of the UN Convention of the Elimination of Discrimination Against Women (CEDAW; signing it in 1981) that included a specific right of rural women to participate on equal footing in agrarian reform (CEDAW 1982). In 1987 Nicaragua adopted a constitution that explicitly granted women and men equal rights in land ownership (Article 109). Moreover, the Agrarian Reform Laws of the 1980s and 1990s that recognized equal rights for both sexes were acknowledged as one of the most forward looking reforms in Latin America because, in theory, they made it possible for women to become direct beneficiaries of land allocation. Indeed, the women-specific measures adopted in Nicaragua have benefited a greater proportion of the female population than in countries where the titling programs are gender neutral (Deere 1985). For example, data from the rural titling office indicate that between 1979 and 1989 women accounted for 8–10 percent of beneficiaries under the agrarian reform. However, although an improvement, these low numbers reflect that land was still being allocated primarily to male "heads of household," whereas titled women were likely widowed or unmarried women living alone.

In 1995 a major legislative leap was taken by the Nicaraguan Women's Institute by introducing provisions to agrarian legislation that encouraged joint titling of land to couples, thereby recognizing married women's rights to land (Act 209/95, Article 32). Subsequently joint titling became compulsory for married couples and for those living in stable relationships (Act 278/97).

However, as evidence of the customary or cultural norms, the term “joint” in the Joint Titling Act was interpreted literally as “two persons” within the family unit. Hence, this act did more to promote joint titling for men (fathers and sons) than for women. Two years later, in 1997, the Inter-Institutional Committee for Women in Rural Development was established with the aim of introducing a gender perspective into agricultural policies, and in 2000 the Rural Titling Office approved a declaration of the principles of gender equality and a need to incorporate a gender perspective into all its policies and programs. Nevertheless, despite considerable legislation that positions Nicaragua as cutting-edge in mainstreaming gender in agricultural policy, the relatively low percentage of women landowners reflects the reality that women’s access remains restricted by cultural practices that prevent the recognition of their role in property ownership and control. Nevertheless, in contrast to many other countries, Nicaragua has the political framework for implementing development intervention aimed at land resource distribution. Because of this, international bodies and social organizations advocating for women’s empowerment argue that women’s access to land will increase empowerment and women’s well-being and have begun to include a gender focus in interventions aimed at property allocation. However, to date, there has been shockingly little data collected to examine the effects of women’s land ownership among women who have benefited from some level of reform or intervention. This study is aimed at providing the empirical support necessary for state and development interventions to implement more equitable policies aimed at land ownership.

## **METHODS**

### **Sample and procedure**

This study is based on a two-group design. A household survey was administered to two different groups of women—one predominantly landowners and the other predominantly non-landowners. The data were collected in 2007 in the municipality of Malpaisillo/Larreynaga in the state of León. The municipality of Malpaisillo was chosen as the study site because it is an area of the country where efforts to title women have been a success. The two groups were chosen from the same geographical location within the country in order to most closely match them on a number of variables; as such, the two groups of women have a great deal in common economically, socially, and culturally. First, this region of the country was significantly impacted by the destruction of Hurricane Mitch. As a result, the area saw the intervention of development organizations focused on home building and, given the international focus on gender, many organizations built and titled houses in women’s names. Thus, over 30 percent of women in both groups reported receiving their houses from a non-governmental organization, with the majority titled in the women’s names. Second, non-governmental organizations in both groups offered human rights and gender reflections education and literacy training.<sup>2</sup>

Because customary practices still largely prohibit women from owning land, we collaborated with a women’s organization in order to obtain a sufficient number of land-owning women for the first group. This women’s organization has a program aimed at facilitating women’s ownership of and titling to land. During the post-Mitch rebuilding, a sizable number of women used the organization to facilitate legalization of land in order to have houses built, but were not subsequently involved in the organization. However, the majority of women in this group (71 percent) sought assistance from the organization and remained involved. The second group of

women was selected from neighboring communities in the same municipality and were not actively involved in the organization with which we collaborated.<sup>3</sup> As such, the primary difference between the two groups of women is that the majority of women in the first group own land whereas the majority in the second group do not. From herein we will refer to the first group as the “intervention” group and the second group as the “control” group. These samples allow for direct comparison of women involved in land resource allocation aimed at empowerment and women who did not receive this intervention.

To construct the intervention group, 174 women were randomly selected from a list of 380 women who had received assistance from the organization in facilitation of land ownership. To construct the control group, thirty-five women each from five surrounding communities in the same municipality were randomly selected to participate. Upon study completion we learned that one of the control communities had received intervention that prohibited inclusion in either of our two groups; thus, this community was dropped resulting in 140 women in the control group. The total sample size was 314 women.

Data were collected in face-to-face interviews in private with a structured questionnaire after oral consent was obtained. The interviews were conducted in Spanish by trained female interviewers. The guidelines on ethics and safety developed by the World Health Organization for the Multi-Country Study on Women’s Health and Domestic Violence Against Women were adapted for this study (WHO 2005). In addition, focus groups were conducted with groups of women and men in both communities.

## **Measures**

All of the questionnaires were translated into Spanish by a member of the research team and then back-translated with a local Nicaraguan speaker to ensure the meanings would be conveyed properly before they were piloted.

*Demographic Characteristics.* Sociodemographic data included age, number of children, education, occupation, employment status and income level, type of housing, relationship status, duration of relationship, and number of current and former partners. Participants also reported data on their current partner: age, work status, earnings in relation to the respondent, the number of children they have together, and the partner’s use of alcohol and drugs. In order to assess civic participation, respondents were asked how regularly they take part in workshops and seminars aimed at women’s empowerment, how long they have been participating in those activities, and whether anyone has ever prevented them from joining an organized event.

*Land/Property.* Questions assessing land acquisition and land ownership were adapted from assessments used by the ICRW. Women were asked whether or not they owned land, how much land they owned, how the land was titled (individual, joint, other), how the land was acquired (e.g., inheritance, agrarian reform, NGO intervention), and who controlled the land (self, partner, self and partner equally).

## Status/Power Measures

*Gender Ideology.* Eight items were chosen from the twenty-five-item short version of the Attitudes toward Women Scale (Spence, Helmreich, and Stapp 1973) based on cultural relevance. Lower scores reflect more subordinate views of women (i.e., more traditional Gender Ideology). Sample items are: “Men should share in household tasks such as washing dishes and doing the laundry” and “A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.”

*Power and Control/Mobility.* Eleven items from the Relationship Control Subscale of the Sexual Relationship Power Scale (e.g., “My partner tells me who I can spend time with” and “When my partner and I disagree, he gets his way most of the time”) were used to assess power in the marital relationship (Pulerwitz, Gortmaker, and DeJong 2000). Three items from the original scale that assessed condom use, as well as one item that did not translate well (“Most of the time, we do what my partner wants to do”), were not included in this assessment. Higher scores reflect greater levels of power within the relationship for the respondents. Women were also asked whether their partners generally prohibit or control their possibilities to carry out everyday activities (e.g., visit family or friends) or exhibit controlling behavior or jealousy (e.g., “Insists on knowing where you are at all times; Is often suspicious that you are unfaithful”), using seven items from the World Health Organization (2005). Three additional items were added to assess whether partners prevented women from working outside the home, studying, or using contraceptives. Affirmative responses in each category were aggregated for a total score of controlling behaviors. Higher scores reflect greater levels of partner control. This scale was labeled Control/Mobility.

*Empowerment/Agency.* Participants completed two of the six subscales from Ryff’s Scales of Psychological Well-Being (Ryff 1989). There were nine items each on the following subscales: Environmental Mastery and Autonomy. Environmental Mastery reflects a sense of competence in managing one’s environment, controlling a complex array of activity, and being able to choose or create contexts suitable to personal needs (e.g., “In general, I feel I am in charge of the situation in which I live”) and was used to assess empowerment. The Autonomy scale assesses self-determination and independence and the ability to resist social pressures to think and act in certain ways (e.g., “I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people”) and was used as an index of agency.

*Psychological Well-being.* Self-esteem was assessed with ten items from a Spanish version of the Rosenberg Self-Esteem Scale (Baños and Guillén 2000). Respondents were asked to agree or disagree with items such as, “At times, I think I am no good at all” and “All in all, I am inclined to feel that I am a failure.” Depressive symptomatology was assessed with eleven items (e.g., “I felt everything I did was an effort; I felt sad”) from the Center for Epidemiologic Studies—Depression Scale (CES-D), which has been validated in Spanish-speaking samples (Grzywacz et al. 2006). One of the original twelve items (“I felt depressed”) was deleted because the translation of the item caused confusion in pilot assessments.

*Intra-household Bargaining Power.* Participants completed two subscales that were designed by ICRW (2004) to measure decision making within the marital relationship. There were eight items

that assessed who had the final decision in both household expenditure decisions (e.g., “Buying food items” and “Buying small household items”) and financial decision making (e.g., “Putting money into savings” and “Taking a loan for small household production”).

*History of Violent Experiences.* The Conflict Tactics Scale was used to determine the existence of physical violence (Straus et al. 1996). It measures current (within the past twelve months) and lifetime prevalence of violence. This scale has been used in prior work on domestic violence in Nicaragua (Ellsberg et al. 2001) and in the World Health Organization’s multi-country study on domestic violence (2005). Physical violence was assessed with six acts of aggression in order of severity, ranging from throwing objects to the use of a weapon.

### **Sample profile**

We first tested for any background differences between the groups of women to check for comparability between samples and to ascertain the need to control for demographic variables in subsequent analyses. Demographic statistics broken down by group are presented in Table 1. The average age of the respondents was in the early- to mid-forties, although the majority of the women fell between twenty-five and thirty-four years old. Approximately three-quarters of the sample were in partnered relationships that were between six and ten years in duration, and the majority of women reported knowledge that their partner had cheated outside of the relationship. Most of the women were in relationships in which there was either no age difference or they were less than five years apart from their partners and there was little gender differential in education or employment. The entire sample reported having three or more children although the women in the intervention group reported having significantly more children than their counterparts ( $t = 2.22, p < .01$ ). Most of the women respondents were literate, although approximately a quarter of the sample never received formal schooling. The male partners were also literate and a higher percentage of the males in the control group received formal schooling ( $t = -3.50, p < .001$ ). Finally, a significantly higher percentage of women in the intervention group reported current employment ( $t = 6.47, p < .0001$ ). However, this finding may be skewed by lack of consistency in the definition of work or employment such that women with less traditional gender ideologies report domestic work as employment whereas women with more traditional ideologies do not (the correlation between employment and gender ideology was  $r = .20, p < .001$  among the intervention group, but non-significant among the control group).<sup>4</sup>

Table 2 contains data summarizing women’s immoveable property. As can be seen from the table, the majority of the women in the intervention group owned land, whereas those in the control group did not.<sup>5</sup> Women who identify as landowners in both groups reported comparably sized plots (an average of seven manzanas is approximately equal to twelve acres) and the majority (80 percent) in each group describe the land as agricultural land; however, a larger percentage of women in the intervention group (82 vs. 50 percent) reported that they made an income off the land.<sup>6</sup> Given the small number of women who own land in the control group, comparing women owners and non-owners within this group was not warranted.<sup>7</sup>

## PRELIMINARY ANALYSES

First, given the quasi-experimental nature of the study design, we decided to test the relative contributions of: a) land ownership; and b) frequency of participation in the women's organization. This enabled us to rule out the concern that levels of empowerment and violence among the intervention group may be due to participation in the organization as opposed to property status. The findings summarized in Table 3 suggest that, while both land ownership and higher levels of participation in the women's organization predict less traditional gender ideology and greater decision making, only land ownership predicts women's empowerment and psychological well-being, more strongly predicting their relationship power and control. These findings are not surprising in light of the fact that both groups of women were exposed to education and activity surrounding women's human rights.

*Empowerment.* Before proceeding to test the potential links among land ownership, women's empowerment, and receipt of violence, we conducted a series of one-way analyses of variance tests (ANOVA) to examine differences in levels of empowerment and violence between the two groups. As can be seen in Figure 1, the intervention and control groups differed on several markers of empowerment in the expected directions, suggesting that women in the intervention group report experiencing higher levels of empowerment and well-being than their counterparts. Specifically, ANOVAs revealed that the two groups were significantly or marginally different on several markers of women's empowerment: gender ideology  $F(1, 308) = 69.60, p < .00$ ; sexual relationship power  $F(1, 308) = 14.72, p < .00$ ; partner control/mobility  $F(1, 308) = 2.76, p < .10$ ; household decision making  $F(1, 308) = 5.99, p < .02$ ; financial decision making  $F(1, 308) = 2.79, p < .10$ ; autonomy  $F(1, 308) = 3.62, p < .06$ ; and self-esteem  $F(1, 308) = 5.40, p < .03$ —indicating that women in the land-owning group reported higher levels of empowerment than their counterparts.

In support of these findings, women in focus groups illustrated how land ownership was linked to several aspects of psychological empowerment as measured in this paper. When asked if things look different in the homes where women own land, one woman replied,

“Yes, because she's got more ability to command. If he has the land he can send me off to live under a tree and stay with the land and get involved with another woman.”

Another woman stated,

“If I own the land and I want to cultivate vegetables and the land is mine then I can do it when I decide.”

When asked if decision making regarding the land influenced other household aspects for women, one replied,

“The self-esteem of women improves because we have more of an equal decision. I think it is good for women to have power over the land, but I think you always have to take into account the other part of the couple because if you don't, we end up doing the same thing the men are doing. What we are trying to do is get both parts coordinated.”

Issues of status and power were reflected when asked whether ownership of land was important even if it was not productive:

“Yes because even if I can’t produce on it, I have ownership of my house and that means I am safe here because if the man is the owner of the house he can say, “Well, I’m the boss here and you have to do what I say.”

When asked explicitly if land changes the way women feel about themselves, one woman stated, “Yeah, I relate to people differently. For example if I am the owner of the land I get involved in commerce and doing business so I meet other people. And it’s also horrible to be in a situation where you are looking for a place to stay with your children because if I have land and decide over that and I’m providing for my family I don’t have to be begging money off of my partner and that means at a certain point that I can stand up to him and say, ‘Get the hell out of here.’ I don’t have to make decisions under him.”

*Violence.* To examine differences in receipt of violence between the two groups, we ran several ANOVAs. First, because women came into land ownership an average of fourteen years after marriage, we ran an ANOVA to examine whether land ownership had an effect on lifetime experience of violence. Given that we expected the role of land ownership to alter women’s status, and thereby receipt of violence, land ownership should not have been related to lifetime experiences of violence; in other words, if land ownership makes a difference, these two groups of women should report comparable histories of violence. As expected, main effects from this analysis were non-significant. Therefore, we next ran an ANOVA to examine the effects of land ownership on current levels of violence. Women from the intervention group reported marginally less violence in the past twelve months than women in the control group:  $F(1, 308) = 2.13, p < .15$  (see Figure 2). Finally, and importantly, main effects from analyses of variance with employment status (employed vs. non-employed) and house ownership predicting receipt of current violence were not significant.

A number of sociodemographic variables were investigated for their potential relation to study variables: age of the woman, age difference between partners, education levels of both partners, educational difference between partners, employment status of either partner, differences in employment status, frequency of participation in women’s empowerment workshops, and frequency of partner’s alcohol use. In particular, in one or both groups of women, age and education were significantly related to gender ideology, autonomy and mastery, relationship power and control, and psychological well-being. Partner alcohol use was related to levels of violence received in the past twelve months. As such, respondents’ age and education and partners’ alcohol use were controlled in subsequent analyses.

Focus groups with men illustrated how women can be viewed as objects that are subject to physical control. For example, this conversation demonstrates the role that violence may play in males’ assertion of relationship power:

Interviewer: In your opinion, what counts as violent behavior?

Male #1: I am a man of experience, I’ve been all over the place and I’ve really got a great deal of experience. There’s one major thing that makes men beat up women or hit women or even get to the point where they’ve almost killed her or all of these really bad things that have happened and that thing is—an unmeasured sense of jealousy. When you feel

jealous and you don't control your jealousy, the next thing you know you're on top of her and really doing damage.

Interviewer: And when you say damage, what counts as damage?

Male #1: Hitting or even killing her. Or cutting her with a machete.

Male #2: Sometimes there'll be a situation where you go out with your partner and there is another guy making noise at your wife and if she has a little giggle or responds to that then that's when the problems start and that's when we lose it because we get really angry.

Interviewer: Is physically disciplining her a way to keep authority over your relationship?

Male #2: Yes, that's the way that it is.

### **Results for proposed pathways**

In order to establish that land ownership was indirectly related to decreases in receipt of violence via women's empowerment, both the Baron and Kenny criteria for mediating conditions (1986) and a product of coefficients test (MacKinnon 2000; Sobel 1990) were used in this study. The conditions that must be met to establish a significant indirect relation are: a) the independent variable (in this case, land ownership) must be significantly related to the process variables (i.e., women's empowerment); b) the hypothesized process variables must directly predict the outcome (i.e., violence in past twelve months); and c) a product of coefficients test—in which a calculated indirect effect is divided by a calculated standard error for the indirect effect of land ownership on physical violence—is significant (MacKinnon 2000; Sobel 1990). Significant *t*-values from these formulas indicate that the indirect effect of the independent variable on the dependent variable is significant.

As Figure 3 shows, variables in the proposed model were conceptualized in the following order: ownership status; empowerment and psychological well-being; and violence. Specifically, we hypothesized that land ownership would directly predict levels of empowerment and psychological well-being, which in turn were hypothesized to directly predict women's receipt of violence in the past twelve months. To test for the first condition, several regressions were run to examine the effect of land ownership on women's empowerment. Results of the regression analyses can be seen in Figure 4. As expected, land ownership was marginally or significantly related to gender ideology, relationship power, partner control/mobility, financial decision making, autonomy, mastery, self-esteem, and depression.

To test for the second condition, several regressions were run to examine the effects of women's empowerment on receipt of physical violence in the past twelve months. As indicated in Figure 4, relationship power, partner control/mobility, autonomy, mastery, self-esteem, and depression were all related to violence. Finally, to test whether land ownership was significantly indirectly related to violence via empowerment we calculated a products of coefficients test for each pathway that met the first two criteria (i.e., that the pathway from the independent variable to the

process variable and the pathway from the process variable to the dependent variable were both significant). Results from this test provide marginal to significant support for the indirect relation of land ownership via: relationship power  $t = 2.78$  ( $p < .01$ ); partner control/mobility  $t = 1.87$  ( $p < .10$ ); autonomy  $t = 1.33$  ( $p < .20$ ); mastery  $t = 1.88$  ( $p < .10$ ); self-esteem  $t = 1.65$  ( $p < .10$ ); and depression  $t = 1.69$  ( $p < .10$ )—suggesting that land ownership leads to decreased domestic violence via several indicators of women’s empowerment.

We hypothesized that the process of empowerment may be indicated by several related constructs. Given that the current study was the first comprehensive investigation of the empowerment process, we decided to examine the relations between the empowerment indicators, women’s psychological well-being, and the standard indicator of empowerment in the social science literature—decision making (see Table 4). Moreover, we hypothesized that a) the empowerment process would effectively alter women’s subordination such that higher levels of empowerment would predict less traditional gender roles, and/or b) shifts in traditional gender ideology would enhance women’s power within the relationship, which would be reflected in higher levels of empowerment and psychological well-being. Only longitudinal or experimental designs can answer in which order these processes occur; however, data from the current study indicate a pattern of significant findings that support a significant relationship between less traditional gender roles and women’s empowerment. Specifically, the results suggest that less traditional gender ideology is significantly related to greater relationship power, less partner control, and higher levels of autonomy, self-esteem, and household decision making as reflected in Table 4.

Furthermore, as expected, psychological well-being (both self-esteem and depression) was significantly related to all of the indicators of empowerment (relationship power, partner control, autonomy, and mastery). Although the data do not allow us to discern the directional nature of these findings, the pattern of results lend support to Amartya Sen’s suggestion that well-being is often influenced by agency or autonomy (1985). Finally, the relative lack of significant relations between decision making and the other indicators of empowerment lends evidence to our argument that current assessment strategies do not adequately measure empowerment or agency and that researchers need to begin to more accurately assess the psychological processes involved in the process of empowerment.

## **CONCLUSION**

The development literature is replete with hypotheses regarding how ownership of and control over resources impact women’s empowerment. However, to date, rigorous empirical testing of these hypotheses has been absent. The current study provides robust data suggesting that land ownership plays an important role in: 1) altering women’s power and status within the household; 2) increasing women’s empowerment and psychological well-being; and 3) decreasing women’s receipt of domestic violence. As such, the findings suggest that land ownership substantially challenges traditional gender roles and increases women’s power and influence within the household, in turn providing a stronger base for women’s empowerment.

The findings from the current study therefore suggest that increasing women’s ownership of and control over land may be an important component in addressing gender inequities and curbing

high levels of violence against women. Indeed, the data suggest that land ownership can alter an unequal risk environment that supports high levels of gender-based violence. Thus, at a minimum, state policies should alter the structural barriers that prohibit women from being landowners. Indeed, significant change has occurred throughout Latin America in the policies that grant women access to land. Nevertheless, the majority of rural women have not benefited from agrarian reform or land distribution at the same levels as men (Lastarria-Cornhiel 2008). In particular, the lack of inclusion of women in land allocation or distribution practices has perpetuated inequities between women and men and further contributes to women's subordination. As such, we argue that state intervention must also be aimed at creating incentive and support for women and men to increase women's roles as landowners.

These groundbreaking findings shed light on the psychological mechanisms surrounding women's empowerment and gender-based violence and have important implications for gender and development theory and initiatives that can improve women's well-being and lead to more equitable interventions for women.

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## NOTES

<sup>1</sup> However, it should also be considered that, as power balance shifts within the household, the potential for violence in the short term is a possibility. For example, some research suggests that the extent to which women's employment alters gender ideology (i.e., when the spouse is unemployed or has lower employment status), men may initially try to coercively control their partners (Macmillan and Gartner 1999).

<sup>2</sup> A key role of organizations is as a conduit for new forms of knowledge and information, an important factor in promoting women's empowerment, particularly in rural areas. Importantly, both groups of women received some level of activity aimed at empowering women.

<sup>3</sup> We purposefully did not choose the non-landowning group of women from the same communities that were involved with the women's organization because it is possible that merely living in the same communities where women's groups were operational, regardless of whether or not individuals were members of the organization, could still expose women to 1) the benefits of local changes implemented by the organization, or 2) resistance to gender-progressive interventions that were occurring as a result. Therefore, we obtained a non-overlapping sample for the second group of women.

<sup>4</sup> Participants were first asked, "Are you currently working, unemployed, retired, or studying?" If unemployed, this question was followed by, "What kind of work do you normally do?" Optional categories were: professional, semi-skilled, unskilled/manual, unskilled-informal sector, farmer owners, and "other." It is of note that 46 percent of women in the control group (vs. 24 percent of the intervention women) reported "other" as their category of work, the vast majority of whom reported their work was domestic labor.

<sup>5</sup> The percentage of women who did not report owning land in the "landowning group" (29 percent) worked with the organization to facilitate titles to their houses post-Hurricane Mitch and were therefore on the organization's initial list for inclusion but did not identify as landowners.

<sup>6</sup> It is important to note that the female landowners we interviewed did not distinguish between agricultural land and the plot of land their house was on. As such, the data do not distinguish between women who farmed the land surrounding their houses and women who owned separate agricultural plots. However, the relatively sizable holdings would suggest that, on average, women own more than the house site.

<sup>7</sup> Despite not running analyses on this select group, it is noteworthy that the majority of landowners in this sample are individually titled and are primarily responsible for controlling and making independent decisions regarding the land.

Table 1

*Sample profile (percentages): Descriptive data regarding demographic variables*

Characteristics	Intervention group (N = 174)	Control group (N = 140)
<i>Sociodemographic features</i>		
Average age (years)		
Woman respondent	45.33 (20–82)	42.13 (17–86)
Partner	50.27 (21–94)	46.79 (23–97)
Age of woman respondent		
15–24	2.3	12.9
25–34	20.7	23.5
35–49	41.4	34.3
> 50	35.6	29.3
Currently married or partnered:	73	77
Spousal age difference (years): <sup>a</sup>		
no age difference	10.0	4.3
1–5	40.6	37.1
5–8	15.2	11.5
9 and above	22.4	24.3
Duration of relationship:		
< 6	7	17.9
6–10	68.3	77.0
11 and above	25	4.3
Number of children:		
0	0	0
1–2	25	38
3–5	34	31
6 and above	41	31
<i>Education (years)</i>		
Woman respondent		
No school	21	22
Primary	39	49
Secondary or beyond	39	28
Literate:	77	79
Partner		
No school	39	23
Primary	47	47
Secondary or beyond	13	25
Literate:	66	76
Spousal education difference:		
Wife = partner (no difference)	44.9	25.0
Wife < partner	44.2	57.6
Wife > partner	10.1	17.4

<i>Employment:</i>		
Woman respondent:		
Unemployed	25	58
Employed:	75	42
Typical type of work:		
Professional	2	2
Semi-skilled	17	16
Unskilled/manual	6	14
Unskilled/informal sector	16	9
Farm Owners	35	10
Other	25	46
Partner:		
Unemployed	10	5
Employed	90	95
Typical type of work:		
Professional	2	0
Semi-skilled	17	22
Unskilled/manual	6	32
Unskilled/informal sector	16	6
Farm Owners	35	26
Other	25	14
Spousal employment difference:		
Wife = partner (no difference)	68	42
Wife < partner	23	56
Wife > partner	8	2
Frequency of partner alcohol use:		
Every day	2	2
1–2x week	17	17
1–3x month	16	13
< 1x month	28	33
Never	36	34
Partner cheated:	56	53
<i>Ownership of property by women:</i>		
None	5	43
Land	71	19
House	87	50
Land and house	64	11

<i>Social support:</i>		
How often do you participate in workshops aimed at women's empowerment?		
Rarely	33	78
1–2 days/week	26	10
3–4 days/week	12	4
Most or all of the time	29	8
SUMMARY		
Rarely – never	33	78
At least 1 day/week	67	22
Kind of workshops participated in:		
Civic participation	39	10
Gender rights education	54	18
Sex and reproductive health	49	18
Economic empowerment	45	24

<sup>a</sup> Twelve percent of the intervention group and 21 percent of the control group reported being older than their male partners.

Table 2

*Sample profile (percentages): Descriptive data regarding immoveable property*

	Intervention group	Control group
Landowners	71	19
Average manzanas	7.53	7.10
Primary means of acquisition:		
Inherited from:		
Husband	29	31
Father	11	23
Mother	11	15
Another family member	2	8
Other person	2	0
Subtotal	55	77
<i>or</i>		
Purchased from:		
Husband	0	0
Father	0	0
Mother	0	0
Another family member	5	4
Other person	18	15
Agrarian reform	6	0
Divided parcel from co-op	0	0
Gifted from NGO	0	0
Financed from NGO	15	0
How is the land titled?		
Individual	99	73
Joint	1	15
Other	0	8
Agricultural land	80	81
Woman makes an income off the land	82	50
Who controls the land, makes decisions regarding the land?		
Woman only	58	66
Woman and partner equally	36	24
Partner only	6	10
Acquired land after marriage:	88	85
Other property:		
Own house	87	50
Whose name is the title in?		
Woman only	99	72
Woman and partner equally	1	20
Partner only	0	7
Other	0	0
Non-landowners	29; N = 50	81; N = 114

Would like to own their own land	100	94
Whose name would the title be in?		
Woman only:	82	51
Woman and partner equally:	2	18
Partner only:	0	8
Other:	16	24

Table 3

*Correlations between women's empowerment and property status and organizational level*

	Land Ownership	Frequency of Participation in Organization
Gender Ideology	.32***	.41***
Relationship Power	.19**	.15*
Partner Control/Mobility	-.11*	-.05
Autonomy	.19**	.10
Mastery	.17***	.08
Self-esteem	.19**	.09
Depression	-.15*	-.11
Household Decisions	.09	.17**
Financial Decisions	-.14*	.23**

\* =  $p < .05$ , \*\* =  $p < .10$ , \*\*\* =  $p < .0001$

Table 4

*Correlations between empowerment, psychological well-being, and decision-making variables*

	Gender Ideology	Relationship Power	PartnerControl/ Mobility	Autonomy	Mastery	Self-esteem	Depression	Household Decisions	Financial Decisions
Gender Ideology	-	.24***	-.12*	.29***	.09	.21***	-.10 <sup>t</sup>	.23***	.00
Relationship Power		-	-.64***	.34***	.32***	.37***	.38***	.12*	.18**
Partner Control/ Mobility			-	-.23***	-.29***	.35***	-.41***	-.04	.09
Autonomy				-	.51***	.35***	-.41***	.04	-.16**
Mastery					-	.39***	-.49***	-.04	-.22**
Self-esteem						-	-.55***	-.06	-.05
Depression							-	.02	.16**
Household Decisions								-	.17**
Financial Decisions									-

\* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$ , <sup>t</sup> =  $p < .10$

Figure 1

*Group differences in empowerment and psychological well-being variables*

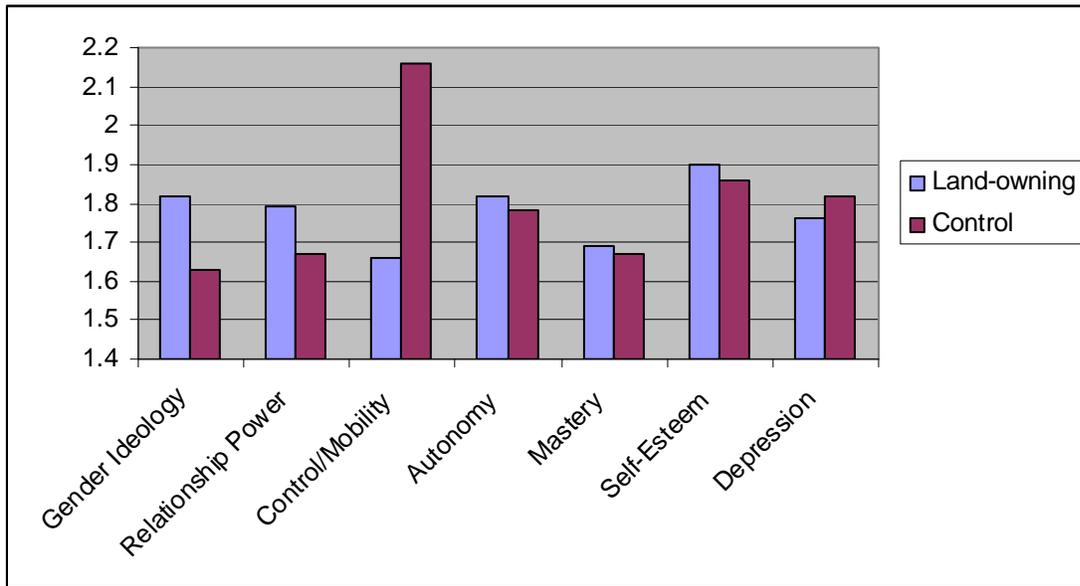


Figure 2

*Group differences in physical violence in the past twelve months*

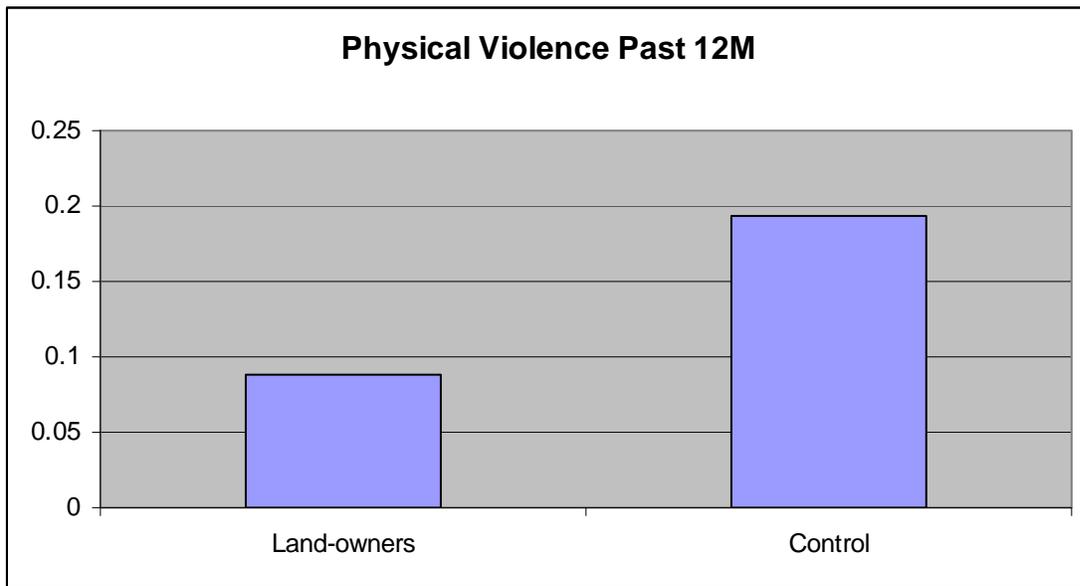


Figure 3

*Conceptual model of the indirect effect of land ownership on violence, with empowerment and psychological well-being as mediators; partner's frequency of alcohol use is controlled in the prediction of the mediators and violence outcomes*

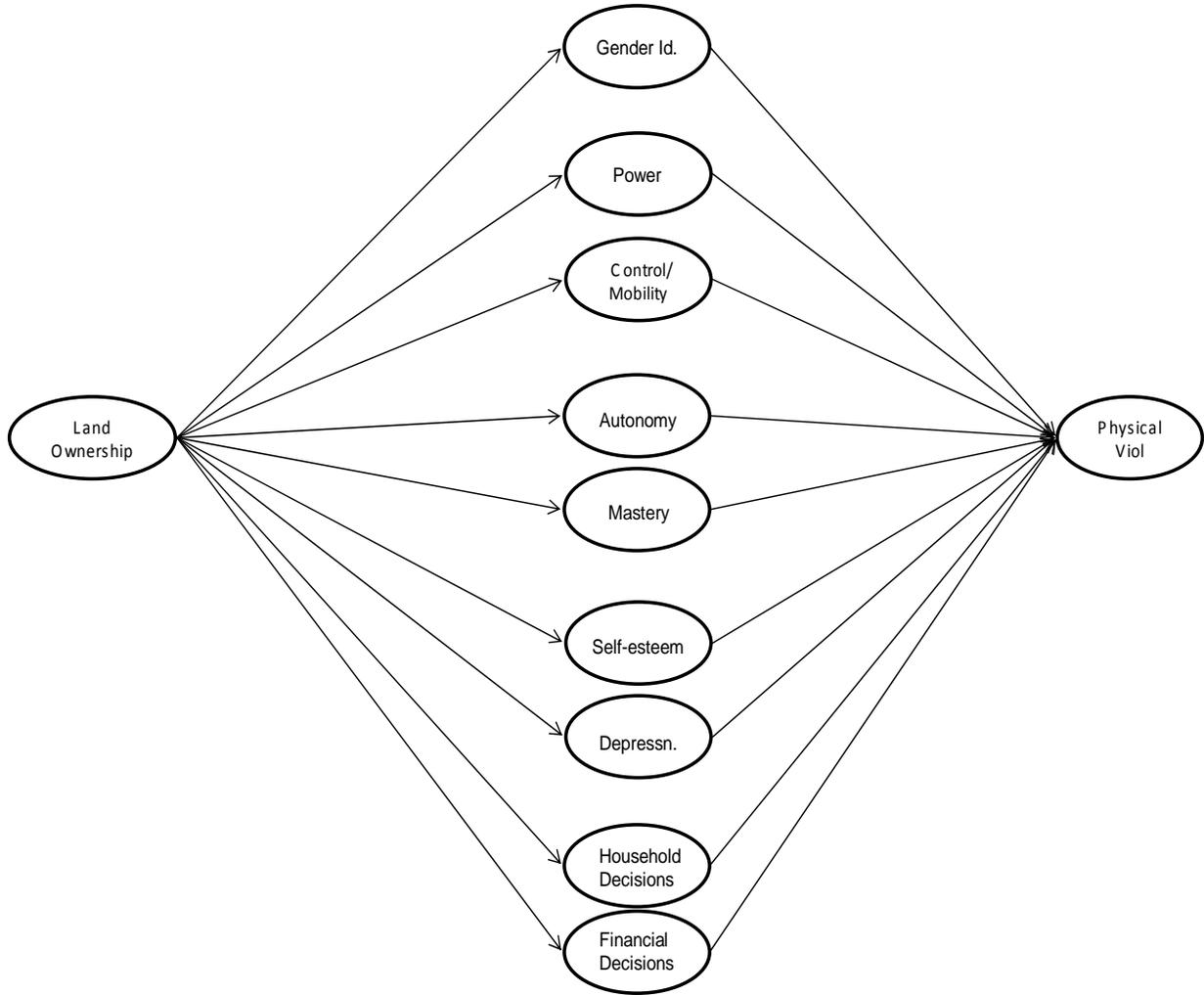
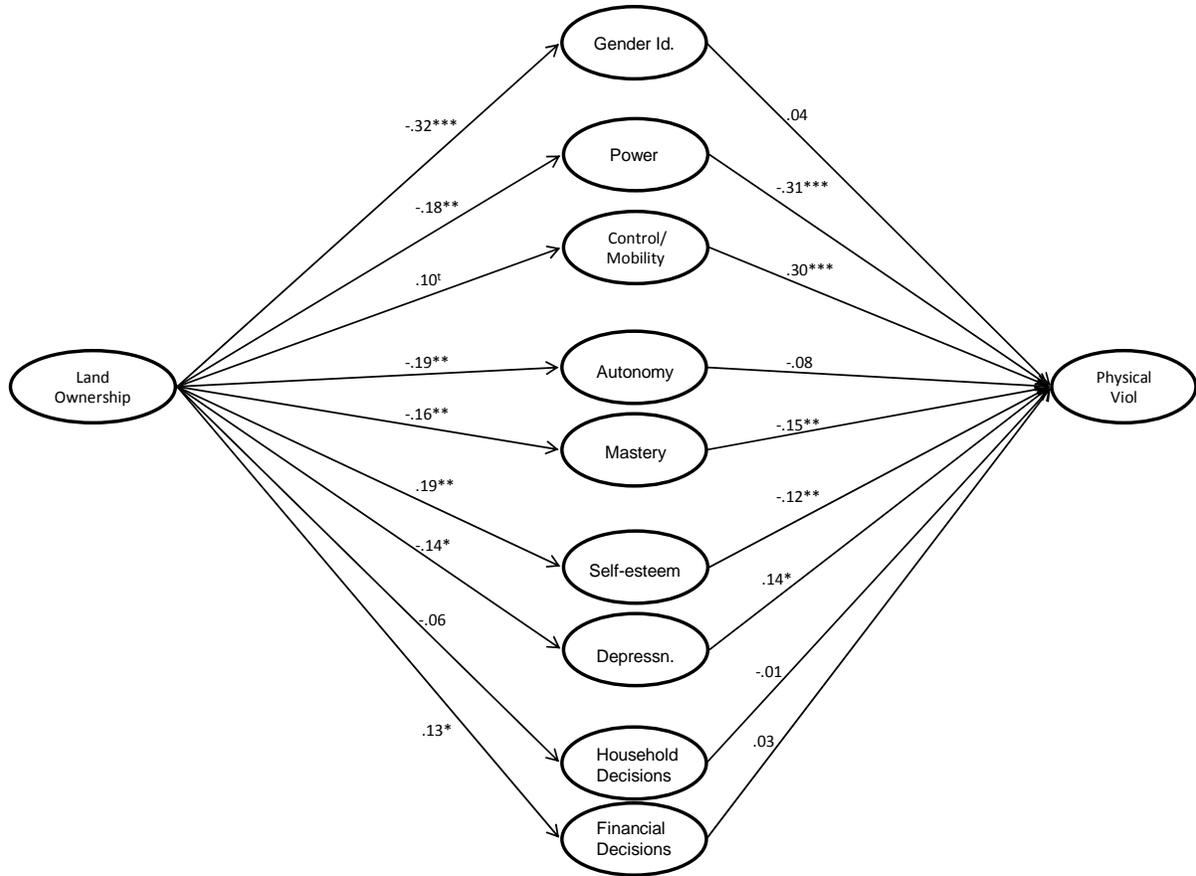


Figure 4

Mediational models; values are standardized beta weights; Levels of respondent age, education, and partner alcohol use are controlled for. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , <sup>t</sup> $p < .20$



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