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The Relationship between Domestic Violence and Reproductive Health and Family Planning Services in Bolivia, 2003

La Relación entre Violencia Doméstica y los Servicios de Salud Reproductiva y Planificación Familiar en Bolivia, 2003

Guido Pinto Aguirre¹, Mary Kincaid², Beatriz Murillo Gutierrez³

ABSTRACT

The main purpose of this paper is to understand the relationship existing between Gender-Based Violence (GVB) and the Use of Reproductive Health and Family Planning services. To carry out this task, we use multivariate logit regression models to explore the direction and strength of the relationship, using a population-based sample for Bolivian women during 2003-2004. Results show a strong, negative and significant relationship between GVB and use of RH/FP services at the population-level, after adjusting for respondent's and partner's individual and household characteristics. That is, GBV is strongly and significantly associated with the use of RH/FP services, in a way that women experiencing domestic violence are less likely to use those services.

Keywords: Domestic Violence, Family Planning Services, Reproductive Health

RESUMEN

El propósito principal del presente documento es la comprensión de la relación que existe entre la Violencia Basada en Género (VBG) y el uso de servicios de Salud Reproductiva y Planificación Familiar (SR/PF). Para implementar esta tarea, se utilizaron modelos de regresión logística a fin de explorar la dirección y fuerza de la relación, utilizando una muestra de mujeres a nivel poblacional para el 2003-2004. Los resultados muestran que existe una relación inversa y significativa entre el VBG y el uso de servicios de SR/PF, a nivel poblacional, después de controlar por las características individuales y de los hogares de las mujeres entrevistadas y de sus esposos/convivientes. Es decir, aquellas mujeres que experimentan violencia doméstica tienen una probabilidad menor de usar los servicios mencionados.

Palabras clave: Violencia doméstica; Servicios de Planificación Familiar; Salud Reproductiva

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1. INTRODUCTION

Relatively little is known about the relationship between Gender-Based Violence (GBV) and the use of Reproductive Health and Family Planning (RH/FP) services in developing countries. Thus, the purpose of this article is to shed some light on the empirical link existing between GBV and the use of FP/ RH services, which has not been subject to any systematic quantitative analysis.

In a context of increasing awareness about GBV, especially against women, and its adverse health outcomes, policy makers require a reliable and unbiased assessment of this relationship in order to implement structural changes to help eliminate GBV and improve use of reproductive health services.

To carry out this task, we use multivariate logit regression models to explore the direction and strength of the relationship, using a population-based sample for Bolivian women during 2003-2004. This analysis represents the first quantitative attempt to explore the GBV-FP/RH association in Bolivia.

2. BACKGROUND

Gender-Based Violence (GBV) increasingly is recognized as a widespread and serious public health problem, in addition to its importance as a pressing social issue that threatens women's human and sexual and reproductive rights.

The expression GBV refers to different types of violence, such as physical, emotional, or sexual abuse, directed at a person because of his/her sex or gender roles in society. In practice, however, the term often is used as a synonym for violence against women, reflecting women's subordinate status in society, deeply rooted gender inequality and women's lack of power in all spheres of life. Across countries, social and ethnic groups, and even controlling for socioeconomic and education factors, researchers have observed high levels of violence directed at women by their intimate partner or other members of their household. Further, women are more likely than men to suffer this kind of violence, not as an act of random violence but as part of a pattern of abusive behavior (Crowell and Burgess, 1996).

GBV within an intimate relationship is also known as domestic violence, which can take various forms: physical assault, such as hits, slaps, kicks, and beatings; psychological abuse, such as belittling, intimidation, and humiliation; and sexual assault, compelling women and girls to engage in sex against their will (Krug et al., 2002).

Domestic violence is not produced in a vacuum but reflects a host of societal, community, family, and individual-level factors that make it "acceptable" or the norm in many settings (Heise, 1998), including Bolivia. At the societal level, traditional gender norms, beliefs and social institutions support men's superiority and entitlement, promoting the notion of masculinity associated with dominance, honor, and aggression. In many settings, these norms grant men control over women's behavior, and tolerate and even justify domestic violence. These negative

masculinity norms are embedded throughout institutions, social structures, and formal and/or customary laws. They are validated (often by both women and men) in neighborhoods, workplaces, social networks and peer groups that condone and legitimize domestic violence and reinforce gender roles that incite violent behavior. Passed from generation to generation, domestic violence is legitimized and perpetuated through the very fabric of social life.

Thus, at the individual level, in many cultures, women and men share the view that partner/husbands have the right to control their wives' behavior, and women who challenge that right must be punished. Specific transgressions of gender norms may prompt "justifiable" abuse: not obeying the husband, creating a suspicion of infidelity, refusing sexual intercourse, questioning the husband/partner about "women friends" or money, not having meals ready on time, talking back or failing to care for the children. One example of behavior that can create a suspicion of infidelity on the women's part is use of female-controlled contraceptive methods, which changes the balance of power in sexual relations and child-bearing decisions.

Previous studies in Bolivia, mostly carried out by Family Health International (FHI) in the mid-1990s (Camacho et al., 1997), found about 50 percent of women had been physically battered by their intimate partners, and nearly a third of them had been forced to have intercourse against their will. Another study in the three major urban centers of La Paz, Santa Cruz and El Alto found that women who decided to use contraceptive methods faced violence from their partners: of the women interviewed, 5% were physically abused and 15% were verbally abused. In all cases, the women interviewed reported that suspicion of infidelity triggered violence (Quiroga et al, 1997)

The distressing health situation of Bolivian women is often discussed in the development and health literature. The most urgent reproductive health problems include maternal mortality, sexually transmitted infections, complications from early pregnancies, and unsafe abortions, which, when coupled with violence, produce many undesirable health outcomes. The social effects are always devastating. For instance, the chain of events for female adolescents starts with an early pregnancy, forcing them to leave school, work in poorly paying occupations, thus affecting their standard of living and pushing them into highly dependent relationships which often are characterized by verbal and physical violence (CIDEM, 1995).

One of the factors contributing to women's health problems in Bolivia is the lack of access to quality reproductive health care. Women of rural origin living in the urban center of El Alto were least likely to seek medical attention in cases of illness, childbirth or injuries caused by men's violent behavior (Basare et al., 1990). Another study in El Alto (Schuler et al., 1994) found that obstacles that prevent women from seeking professional health care included economic hardship, negative perceptions of the client-doctor relationship, and men's decision-making power over women's and family health matters.

3. METHODS

3.1 Data

This paper uses cross-sectional data gathered by the Demographic and Health Survey (DHS) 2003 in Bolivia, available from the National Institute of Statistics (INE). The DHS database provides the information needed for studying the linkage between GBV and use of RH and FP services at the population level.

The Bolivian DHS questionnaire gathers data from females in reproductive ages (15 to 49 years) on various individual characteristics such as age, parity, marital status, use of reproductive and family planning services and practices, contraceptive knowledge and practice, employment, reproductive health, maternal anthropological measures, their reproductive and sexual history, as well as their partner's education, employment, and alcohol consumption, etc. Additionally, the Bolivia survey includes a module on "Violence against women," which collects information on both physical and verbal violence directed towards women. For the purposes of this paper, we use the term domestic violence, as a subset of both gender-based violence and violence against women, as the data we use is specific to the violence that occurs within the household setting.

3.2 Modeling strategy

Since our goal is to examine the relationship between use of RH/FP services and domestic violence, controlling for other factors associated with the outcomes of interest, the underlying theoretical model suggests that the empirical model should be specified throughout the following regression equation:

$$\log\left(\frac{USE}{1-USE}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon$$

Where the ratio (USE/ 1–USE) is called the "odds ratio" of using RH/FP services, and the left-hand expression is denominated log odds or logit. Dependent and explanatory variables are defined below. The empirical models were estimated using the STATA package.

Since available cross-sectional data would not enable us to establish any causality in the observed association, we assumed that domestic violence tends to reduce the likelihood of using RH/FP services, and not in the other way around; that is, we assume that the partner/husband reacts with violence to the woman's use of RH/FP services. We based this assumption on qualitative research documenting that concealed use of female contraceptive methods can trigger violence, because partners/husbands might suspect infidelity (Rao, 1997; Pallito and O'Campo, 2004).

3.3 Dependent variables: Use of Reproductive Health and Family Planning Services

Use of Reproductive Health and Family Planning Services are represented by two aggregate measures, created as dichotomous variables, using questions on (1) current utilization of contraceptive methods (Family Planning services) and (2) use of prenatal care and Pap smear

(Reproductive Health services). The first dummy variable was coded as one for women who reported currently using any contraceptive method, either modern or traditional, and zero otherwise. The second variable accounts for the use of reproductive health services and was coded as one for women using either prenatal care or Pap smear and zero otherwise.

3.4 Independent variables: Domestic Violence

An individual woman was classified as having experienced domestic violence if her partner/husband hit her with his hand or kicked, hit her with a hard object, dragged her, tried to choke or strangle her, forced her to have sex, and told her that "you are good for nothing", either sometimes or frequently.

We pooled this information to create two aggregated measures: (1) physical violence and (2) violence (includes both physical and emotional), which were coded equal to one for all women who reported physical abuse and physical and/or verbal abuse, at any frequency, respectively. Verbal abuse was not considered as a stand-alone category for this analysis.

It is important to highlight that women were asked about their experience of abuse in their current or most recent intimate relationship and not over their lifetime. This constraint may result in a weaker relationship between violence and use of RH/FP services, since experience of domestic violence in a previous relationship may have a spillover, deterrent effect on use of RH/FP services in the present.

3.5 Control variables: Social, Biological and Demographic factors

Control variables include women's age (young, middle-aged, old), number of children (number of children ever born), and respondent's education level (none, primary, secondary or higher than secondary), partner's education (none, primary, secondary or higher). To measure socioeconomic status, we used a wealth index, which divides households into five groups: poorest, poorer, middle, richer, and richest, according to the number of goods a particular household has.

Other controls, expressed as binary variables, are woman is afraid of partner/husband (s1007a); woman talked about family planning methods with partner (v630a); partner/husband was drunk when woman was abused (s1008aa); woman was visited by a Family Planning worker (v393); woman is using FP services to limit number of children, i.e., woman wants no more children (v626); woman was told about FP at a health facility (v395); as a result of violence, woman had bruises, injury or broken bones, abortion, and temporal/permanent loss of body members, that is, woman was hurt (s1007b-s1007d); respondent is currently working (v717); partner/husband works (v705); partner/husband decides on health issues (v743a); partner/husband decides on household expenses (v743b); and woman belongs to some ethnic group (v131).

The use of several of these control variables is justified by their association with attitudes and values that legitimize men's control over women, such as decision making power over household expenses and women's lack of empowerment at the household, community, and societal levels. Frequently, disempowerment can inhibit women from leaving abusive relationships and making their own decisions about the use of health services. On the other hand, women's participation in

the labor force and increased earnings can empower them to exercise more control over their lives and bodies, but the direction and strength of the relationship with domestic violence is unclear.

Partner's low education and low socioeconomic status is hypothesized to increase stress between partners, thus increasing violent episodes against women. Having partner/husband who gets drunk frequently also is considered a risk factor for domestic violence in this exercise.

4. RESULTS

Multiple logit regressions models were used to assess the relationship between different types of domestic violence (physical abuse and emotional/physical abuse) and use of FP/RH services. Control variables included wealth, education, age, and fertility desires, as well as behavior toward family planning services and partners' characteristics.

The results from estimation of use of RH and FP services are reported in Tables 1 and 2, respectively. The tables show regression coefficients and odds ratios for four different models. The dependent variables are "use of FP services" and "use of RH services." In order to test the "effect" of domestic violence on the uptake of RH/FP services, two different violence variables are introduced in the models as independent variables but separately. In Table 1, the first model tests the net effect of physical violence on the use of FP services, while the second one tests the net effect of both forms of violence (physical and emotional) on FP services. Table 2 displays two similar models, but using "use of RH services" as the dependent variable. Net effect signifies that the association between domestic violence and RH/FP services is not contaminated by all other factors included in the models.

When interpreting logistic regression coefficients, only the sign and significance of these coefficients can be interpreted easily. If we are interested in the size of the effect, coefficients must be transformed into odds ratios (OR). That is, logit regression coefficients must be exponentiated and sometimes are called factor coefficients. Values of OR larger than one indicate that the variable in question increases the likelihood of "occurrence" of the dependent event (e.g., using FP/RH services), when all other factors in the model are held constant; thus, there is a positive effect. But, OR values smaller than one indicate a decrease in the odds, then the effect is negative, always holding constant all other factors in the model. For instance, the odds ratio of 1.34 for women with primary education (Table 1, model 1) indicates that having elementary education, compared to not having any education, leads to about 34% increase in the odds of using FP services, holding constant everything else. In this case, the odds can be understood as the likelihood of using FP services compared with not using them.

It is clear in all four models that the net effects of domestic violence on the use of RH/FP services are statistically significant and in the expected direction. That is, all models show that the use of RH/FP services is significantly and negatively associated with domestic violence, even after the relationship was controlled for all other relevant factors.

Table 1 shows that in Model 1, the regression coefficient for physical violence is negative (-0.3968) and highly significant ($p=0.009$), meaning that women subject to physical violence are less likely to use FP services (any contraceptive method), holding constant all the other variables included in the model. The OR for this coefficient is equal to 0.6725; that is, being subject to physical violence, compared to not being abused, leads to a reduction of about 33% in the likelihood of using FP services, controlling for everything else in the model.

In the second model, the coefficient for both types of violence (physical and emotional) increases a little bit, to -0.3277, and it is still significant ($p=0.05$ or 5%). This value can be interpreted as follows: women suffering both physical and emotional violence are also less likely to use FP services, holding constant all the other variables in the model. This means a significant reduction in the likelihood of using FP services of about 27.4%.

Table 2 shows identical model specifications as in Table 1, but with a different dependent variable. Models 3 and 4 have “use of RH services” as the dependent variable. For both models, the net effect of domestic violence on use of RH services is negative, and the estimated coefficients are -0.5426 and -0.5301, respectively. Thus, these values can be interpreted as follows: women who experience domestic violence are significantly less likely to use RH services, controlling for other variables in the model. Both coefficients are statistically significant, $p=0.003$ in the third model and $p=0.001$ in the fourth model.

Using OR to capture the association between these variables, and comparing women subject to domestic violence (either physical and/or emotional) with women not being abused, we observe a 36% reduction in the likelihood of using RH services, other things being equal. For physical violence alone, the result is comparable, at 36%.

In Tables 1 and 2, the results further show that as socioeconomic status increases, use of FP/RH services also increases significantly. Women belonging to an ethnic group are less likely to use those services. Working women are more likely to use FP services and less likely to use RH services. As women’s education increases, the likelihood of using FP/RH services also increases. When FP methods are discussed with partner/husband, women are more likely to use FP services. Similarly, as husband’s education increases, women are more likely to use those services.

5. CONCLUSIONS

Logit regression models using data from the Bolivian DHS 2003 produced strong, negative and significant estimates of the relationship between domestic violence and use of RH/FP services at the population-level, after adjusting for respondent's and partner's individual and household characteristics. That is, domestic violence is strongly and significantly associated with the use of RH/FP services, in a way that women experiencing domestic violence are less likely to use those services.

How can this potential relationship be explained? At least three mechanisms can be entertained to explain the association between domestic violence and use of RH/FP services. First, physical and emotional abuse may increase a woman's lack of power and autonomy, thus reducing her ability to negotiate the use of reproductive health care and fertility regulation services (Heise et al., 1995). This mechanism reflects the fact that abuse against women is driven by power and gender inequalities.

A second mechanism, related to the previous one, is that in many countries women fear retaliation for certain behaviors and practices that can be considered as socially deviant by men (and women, including female relatives and in-laws), such as covert use of contraceptive methods or visiting health facilities alone during early stages of pregnancy. Thus, fear of violence may be affecting women's decision-making related to RH/FP services (Heise et al., 1995; Blanc et al., 1996; Bawah et al., 1999).

Third, women may avoid, of their own initiative, using RH/FP services as a strategy to reduce the likelihood of violence. Thus, for abused women what appears to be a lack of response to a violent environment might rather be a behavior to protect themselves and their children, and not an act of surrendering to the demands of their husband/partner, given the restricted options available to them.

We can conclude that by reducing domestic violence directed at women, they are likely to gain more access, without fear of reprisal, to RH/FP services, thus increasing the demand for these services. The implication for RH/FP policy and programming, therefore, is to consider domestic violence reduction programs as a complementary programming area – another “push factor” to increase uptake of RH/FP services. Promoting policies to eliminate GBV requires special structural interventions, including programs that (1) deconstruct traditional power structures and cultural legacies that sustain GBV; (2) bring pressure on communities and institutions to assume responsibility for eliminating GBV and to find ways to hold them accountable if they do not; and (3) employ multisectoral approaches and coordination across sectors to maximize resources and make actions more effective. Finally, ensure that programs aimed at promoting development include a gender dimension as a critical feature in the formulation, design, and implementation of all interventions.

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Table 1. Regression coefficients and odds ratios from multivariate logistic regression for assessing the association of GBV and Use of Family Planning Services, Bolivia 2003

| Socioeconomic characteristics | Model 1 | | | Model 2 | | |
|--|-------------|------------|---------|-------------|------------|---------|
| | Coefficient | Odds ratio | p-value | Coefficient | Odds ratio | p-value |
| Physical violence | -0,3968 | 0,6724 | 0,009 | - | - | - |
| Violence (physical & verbal) | - | - | - | -0,3277 | 0,7206 | 0,059 |
| Afraid of partner/husband | 0,0729 | 1,0757 | 0,580 | 0,0397 | 1,0405 | 0,761 |
| Primary education | 0,2953 | 1,3435 | 0,066 | 0,3093 | 1,3625 | 0,053 |
| Secondary education | 0,6668 | 1,9479 | 0,001 | 0,6465 | 1,9088 | 0,001 |
| Higher education | 0,6195 | 1,8579 | 0,012 | 0,7433 | 2,1029 | 0,002 |
| Poor | 0,2421 | 1,2739 | 0,081 | 0,2595 | 1,2963 | 0,059 |
| Middle | 0,3721 | 1,4506 | 0,010 | 0,3213 | 1,3789 | 0,023 |
| Rich | 0,6577 | 1,9303 | 0,000 | 0,6499 | 1,9154 | 0,000 |
| Very rich | 0,5072 | 1,6606 | 0,004 | 0,4857 | 1,6253 | 0,004 |
| Discussed FP with partner/husband | 0,5437 | 1,7223 | 0,000 | 0,5587 | 1,7484 | 0,000 |
| Children ever born | -0,0921 | 0,9119 | 0,000 | -0,0939 | 0,9103 | 0,000 |
| Partner/husband drunk | -0,0752 | 0,9276 | 0,418 | -0,0483 | 0,9528 | 0,590 |
| Young women | 0,5049 | 1,6568 | 0,000 | 0,4574 | 1,5799 | 0,001 |
| Midage women | 0,3689 | 1,4463 | 0,000 | 0,4107 | 1,5078 | 0,000 |
| Women visited by FP worker | 0,1013 | 1,1067 | 0,366 | 0,0699 | 1,0725 | 0,524 |
| Want no more children | 2,0994 | 8,1610 | 0,000 | 2,1149 | 8,2896 | 0,000 |
| Primary education (partner/husband) | 0,8828 | 2,4175 | 0,000 | 0,9642 | 2,6228 | 0,000 |
| Secondary education (partner/husband) | 0,8247 | 2,2813 | 0,000 | 0,9074 | 2,4779 | 0,000 |
| Higher education (partner/husband) | 1,2522 | 3,4982 | 0,000 | 1,2487 | 3,4859 | 0,000 |
| Told about FP at Health Facilities | 0,4442 | 1,5593 | 0,000 | 0,4669 | 1,5951 | 0,000 |
| Women hurt | 0,0776 | 1,0807 | 0,450 | 0,0319 | 1,0324 | 0,742 |
| Respondent works | 0,2459 | 1,2788 | 0,010 | 0,2324 | 1,2616 | 0,012 |
| Partner/husband works | 0,7234 | 2,0613 | 0,003 | 0,1620 | 0,8564 | 0,087 |
| Partner/husband decides on health issues | 0,3917 | 1,4795 | 0,013 | 0,3786 | 1,4602 | 0,016 |
| Partner/husband decides on expenses | 0,2214 | 1,2479 | 0,052 | 0,2163 | 1,2415 | 0,058 |
| Respondent is ethnic | -0,5111 | 0,5998 | 0,000 | -0,5383 | 0,5837 | 0,000 |
| Constant | -2,8895 | - | 0,000 | -2,2479 | - | 0,000 |
| N | 3211 | | | 3383 | | |
| Wald Chi2 (df) | 610 | 26 | 0,000 | 675 | 26 | 0,000 |
| Pseudo R2 | 0,1869 | | | 0,1969 | | |

Table 2. Regression coefficients and odds ratios from multivariate logistic regression for assessing the association of GBV and Use of Reproductive Health Services, Bolivia 2003

| Socioeconomic characteristics | Model 3 | | | Model 4 | | |
|--|-------------|------------|---------|-------------|------------|---------|
| | Coefficient | Odds ratio | p-value | Coefficient | Odds ratio | p-value |
| Physical violence | -0,4526 | 0,6359 | 0,001 | - | - | - |
| Violence (physical & verbal) | - | - | - | -0,5301 | 0,5886 | 0,003 |
| Afraid of partner/husband | -0,0781 | 0,9249 | 0,507 | -0,0788 | 0,9242 | 0,503 |
| Primary education | -0,2071 | 0,8129 | 0,167 | -0,2133 | 0,8079 | 0,155 |
| Secondary education | 0,0922 | 1,0966 | 0,603 | 0,0888 | 1,0929 | 0,616 |
| Higher education | 0,2174 | 1,2428 | 0,365 | 0,2198 | 1,2458 | 0,359 |
| Poor | 0,4676 | 1,5962 | 0,000 | 0,4656 | 1,5929 | 0,000 |
| Middle | 0,6085 | 1,8375 | 0,000 | 0,6072 | 1,8353 | 0,000 |
| Rich | 0,8032 | 2,2326 | 0,000 | 0,8129 | 2,2546 | 0,000 |
| Very rich | 1,2596 | 3,5242 | 0,000 | 1,2674 | 3,5516 | 0,000 |
| Discussed FP with partner/husband | 0,1779 | 1,1948 | 0,150 | 0,1926 | 1,2124 | 0,119 |
| Children ever born | 0,0006 | 1,0006 | 0,978 | 0,0019 | 1,0019 | 0,924 |
| Partner/husband drunk | 0,0429 | 1,0439 | 0,614 | 0,0406 | 1,0415 | 0,633 |
| Young women | 0,6081 | 1,8369 | 0,000 | 0,6071 | 1,8352 | 0,000 |
| Midage women | 0,5731 | 1,7738 | 0,000 | 0,5754 | 1,7778 | 0,000 |
| Women visited by FP worker | 0,0947 | 1,0993 | 0,354 | 0,0972 | 1,1021 | 0,342 |
| Want no more children | 0,1939 | 1,2141 | 0,022 | 0,1928 | 1,2126 | 0,022 |
| Primary education (partner/husband) | 0,0937 | 1,0982 | 0,623 | 0,0874 | 1,0913 | 0,647 |
| Secondary education (partner/husband) | 0,1235 | 1,1315 | 0,539 | 0,1129 | 1,1196 | 0,575 |
| Higher education (partner/husband) | 0,5631 | 1,7560 | 0,020 | 0,5481 | 1,7299 | 0,024 |
| Told about FP at Health Facilities | 0,6535 | 1,9223 | 0,000 | 0,6508 | 1,9171 | 0,000 |
| Women hurt | 0,0433 | 1,0442 | 0,645 | 0,0055 | 1,0055 | 0,952 |
| Respondent works | -0,1447 | 0,8653 | 0,099 | -0,1550 | 0,8564 | 0,077 |
| Partner/husband works | 0,0766 | 1,0797 | 0,752 | 0,0707 | 1,0732 | 0,770 |
| Partner/husband decides on health issues | -0,1329 | 0,8755 | 0,323 | -0,1437 | 0,8661 | 0,285 |
| Partner/husband decides on expenses | -0,2174 | 0,8046 | 0,029 | -0,2289 | 0,7954 | 0,021 |
| Respondent is ethnic | -0,1817 | 0,8339 | 0,021 | -0,1875 | 0,8289 | 0,017 |
| Constant | -0,4347 | - | 0,279 | -0,2887 | - | 0,490 |
| N | 3204 | | | 3204 | | |
| Wald Chi2 (df) | 285 | 26 | 0,000 | 287 | 26 | 0,000 |
| Pseudo R2 | 0,0761 | | | 0,0757 | | |