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Ballesteros, Matías S. y Krause, Mercedes.

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Chapter 3

**ADDING INTERACTIONS IN ORDER TO
MODEL INTERSECTIONALITY:
AN EMPIRICAL STUDY ON SELF-PERCEIVED
HEALTH STATUS IN ARGENTINA**

Matías S. Ballesteros*, PhD and Mercedes Krause, PhD
IIGG-UBA/CONICET & IIGG-UBA, Buenos Aires, Argentina

ABSTRACT

In recent decades, intersectionality has been at the center of both feminist debates and the theory of gender. In the United States, Canada and Europe, it has achieved a hegemonic status, strengthened by its multiple possible applications, precisely because it does not meet the necessary requirements to become a theory or conception with defined contours.

Intersectionality was mainly incorporated in qualitative studies, favoring methodologies that were deemed to be best suited to address the complexity which lies within (e.g., ethnography, deconstruction, genealogy, ethnomethodology and case studies). In the field of population health research in particular, new approaches to model intersectionality in quantitative studies are still emerging. One way of making progress in multivariate analysis has been to calculate logistic regressions models

* Corresponding author's E-mail: matiballesteros@yahoo.com.ar.

separately for men and for women. Other authors work with additive models from multiple linear regressions, where different “levels of intersectionality” are included in different steps of the regression. Another possible approach, when applying multiplicative models, is the inclusion of interaction terms in conventional regression models.

This chapter aims at contributing to these theoretical-methodological discussions about intersectionality throughout an empirical analysis of health inequalities in Argentina. More specifically, we use one of the many multiplicative statistical models to analyze the self-perceived health status of the population aged 18 and older, living in urban areas of Argentina. We address the effect of different sociodemographic and geographical variables on self-perceived health status, and then we add interactions within the regression: between gender and educational level, between gender and the income quintile and between gender and the age group. We work with the data of the National Survey of Risk Factors (ENFR for Encuesta Nacional de Factores de Riesgo in Spanish, 2013), provided jointly by the National Institute of Statistics and Censuses (INDEC) and the National Ministry of Health in Argentina (MSAL). This survey was carried out based on a probabilistic design (by conglomerates and stratified), throughout four stages (department, area, housing and household member). The final database is made up of 32,365 cases nationwide.

INTRODUCTION

In recent decades, intersectionality has been at the center of both feminist debates and the theory of gender. It has been remarked as the “most important theoretical contribution”, in conjunction with related fields, that women’s studies have accomplished so far (McCall 2005, 1771). In the United States, Canada and Europe, it has achieved a hegemonic status and it continues to gain popularity in Latin America. Ten years ago, Davis (2008) announced that intersectionality had become a spectacular phenomenon, whose success was strengthened due to its multiple possible applications, ambiguities and incompleteness. The new “buzzword” appealed not only to generalists –thanks to easy-to-remember clichés such as “asking the other question”¹– but also to specialists interested in an old existing problem

¹“Asking the other question” is the method proposed by Matsuda (1991, 1189, cited in Davis 2008, 70) to understand the interconnection between different forms of social subordination: “When I see something that looks racist, I ask, ‘Where is the patriarchy in this?’ When I see

within the feminist studies: grasping the complexities and differences between women (Davis 2008). It was precisely because intersectionality does not meet the necessary requirements to become a theory or conception with defined contours, that feminists of different organizations, disciplines, theoretical perspectives and political positions seemed to agree upon that it was just what they were looking for (Davis 2008, 68).

A decade later, the discussion about when, where and how to apply intersectional analysis has not been left behind. Its ambiguity as well as its open character are still productive and stimulating new ways of doing empirical analysis. For a while, intersectionality was mainly incorporated in qualitative studies, favoring methodologies that were deemed to be best suited to address the complexity which lies within (e.g., ethnography, deconstruction, genealogy, ethnomethodology and case studies). It has even been argued that the core of intersectionality –constituted by the interdependence, multidimensionality and mutually constitutive relationships that exist between inequality axes- is inherently opposed to most quantitative approaches (Bowleg 2008, 317)². Other authors reckon the need for both new methodological strategies, as well as for quantitative empirical research to be up to date, in comparison with qualitative theoretical and empirical advances (McCall 2005, Bowleg 2012, Richman and Zucker 2019, among others).

Currently, there are emerging new statistical models -some very complex ones- so as to study intersectionality. However, the question of how intersectional analysis should be done is still a matter of widespread interest and debate. Consensus on the best ways to conduct quantitative intersectional research remains limited (Richman and Zucker 2019, 3). The interested parties in doing so “often have to self-teach and learn through trial and error” (Bowleg 2008, 313).

This chapter aims at contributing to these theoretical-methodological discussions about intersectionality throughout an empirical analysis of

something that looks sexist, I ask, ‘Where is the heterosexism in this?’ When I see something that looks homophobic, I ask, ‘Where are the class interests in this?’”.

² According to Else-Quest and Hyde (2016a, 160), this supposed incompatibility between intersectionality and quantitative methodology is based on necessarily associating quantitative research with positivist epistemology, which is incorrect.

health inequalities in Argentina. More specifically, our objective is to analyze the self-perceived health status using a multiplicative statistical model. It should be noted we understand that the possibility of doing intersectional analysis is equally related to both the theoretical interpretation of the data as well as to the implemented statistical techniques. Therefore, we first delineate what we would understand as an intersectional analysis (and what we would not). Secondly, we present the data of the third National Survey of Risk Factors and our methodological decisions. Thirdly, we address the effect of different sociodemographic and geographical variables on self-perceived health status, and then we add interactions within the regression: between gender and educational level, between gender and the income quintile and between gender and the age group. Finally, we discuss the results and conclude with an evaluation of its originality.

WHAT IS (AND WHAT IS NOT) AN INTERSECTIONAL ANALYSIS?

Intersectionality's ambiguity and open nature may stimulate researcher's creativity and initiative, but it also entails the danger of believing that "anything goes" (Warner 2016, 345). That is why, our next step is to review some forms of empirical analysis that we do not consider intersectional, so as to clear up the basic principles that any intersectional analysis should fulfill.

Much progress has been made in the fields of public health or population health studies when analyzing the social inequalities in health. However, many of these advances examine each axis of inequality as a distinct and independent dimension: e.g., inequalities in health by race or ethnicity, inequalities in health by gender, and inequalities in health by social class without taking into account a possible entanglement between them (Veenstra 2011, 1). This type of analysis is not intersectional because it fails to accomplish intersectionality's most elementary and theoretical principle, which is the notion that social categories (for example, race, social class,

gender and sexuality) are multiple, interdependent and mutually constitutive (Bowleg 2012, 1268).

If we take a step further, we find numerous studies carried out from the perspective of the social determinants of health, which have even performed an analysis of statistical interactions among social categories within their regression models. However, these studies do not explicitly apply the theories of intersectionality when theoretically interpreting the results (Veenstra 2011, 3). Following Bowleg (2012, 1267), it is not a semantic issue but a theoretical and political one, given that a second basic principle of intersectional analysis seeks to make explicit that the intersections of multiple social identities at the microsocial level reflect both multiple and intertwined systems of inequality at the macro structural level. Intersectionality theorizes how the different relations of power and oppression make up a system of social stratification as a whole (Marecek 2016, 177). As a critical theory, it invites us to get rid of the idea of a neutral and apolitical science, and instead, to use analysis for the empowerment of oppressed groups and individuals in order to eradicate social inequities (Else-Quest and Hyde 2016a, 2016b, 158, Warner et al. 2016, 173, Richman and Zucker 2019, 8). Therefore, Richman and Zucker (2019, 1) warn us: when using the tools of statistical analysis, it is important not to lose sight of the origins and the historical foundations of intersectionality, which made up their inherent transforming spirit. From an intersectional standpoint, the results of the analysis should be interpreted within a social, historical and structural inequality context (Else-Quest 2016a, 164).

Far from complying with these principles, many studies of the social determinants of health, do not name intersectionality as a phenomenon of interest, and, more importantly, they do not refer to the relations of power and oppression that underlie the interaction between variables. They rely, instead, that variables such as race, gender, sexual orientation, social class and disability are explanatory constructions within themselves (Bowleg 2008, 322).

In short, we agree with Else-Quest and Hyde (2016a) on the point that intersectionality is more than just a statistical model. Characterizing the demographic differences or comparing the different social groups is not

enough to achieve an intersectional analysis; rather, it is the analysis and interpretation of results within both, a socio-historical context and an inequality structure, that might best define intersectional research (Bowleg 2008, 323). Thus, it would be a mistake to think that the lack of statistically significant interactions invalidates or refutes the idea that different identities and social positions intersect themselves, or are coproduced and experienced simultaneously (Evans 2019, 26). In this sense, it is worth remembering that intersectionality should be considered as an analytical framework rather than a theory to be tested or rejected in the positivist sense (Else-Quest and Hyde 2016a, 159). For example, Aguilar et al. (2016, 145) aims to analyze the effect of the intersection between class and gender on the quality of employment in Chile. They postulate as their own hypothesis, that the condition of being a woman could act as an “amplifying mechanism” of class differences in the objective and subjective indexes of employment quality. Based on logistic regressions for men and for women separately, they reject the hypothesis and therefore conclude the following:

“The foregoing does not mean that gender is not a mechanism of fundamental importance in understanding how inequality in the labour market is generated or functions (...) Overall, these results suggest that both class and gender play a central role in the perpetuation of inequalities in the Chilean labour market. They also indicate that, in some cases, gender is a fundamental consideration in understanding how class-based inequalities operate or, in this specific case, how social class influences subjective aspects of job quality, such as the perception of control over work processes” (Aguilar et al. 2016, 149).

Finally, it has been argued that describing “multiple main effects” is a valid strategy of intersectional analysis. Else-Quest and Hyde (2016b, 329) expose the following example:

“Continuing with the example from Method 3.A with stratified random sampling that produces a 2 (Gender) x 3 (Race) quasi-experimental design with roughly equal numbers of participants in each cell or group, suppose the outcome variable is self-esteem; the analysis would examine main effects of both gender and race. From an intersectionality framework, those statistical results would be interpreted as indicating that both race and gender are linked to self-esteem”.

The inclusion of this strategy as valid intersectional approach is certainly controversial. We agree with Bowleg and Bauer (2016, 339) that this type of analysis studies the effects of gender and race on self-esteem as mutually exclusive, without addressing the intersection between gender and race and, therefore, represents exactly what has been criticized as an additive approach towards social inequalities.

Now, what models of analysis can serve to account these intersectionality theories? Without intending to be exhaustive, here are some of the most implemented models. A first and simple variant in which one can work with simple statistical techniques such as bivariate tables, consists of constructing categories that represent intersections (for example, working class black man, middle class white woman) and see what effects they have on the dependent variable (Bauer and Scheim 2019, 238). Now moving to multivariate analyzes, one way of making progress has been to calculate logistic regressions models separately for men and for women. This is how authors from the European social epidemiology address the subject (Rohlfes et al. 2000, Artazcoz et al. 2001, Borrell and Artazcoz 2008, García Calvente et al. 2010), which has been replicated in Argentina by Krause and Ballesteros (2018). Other authors work with additive models from multiple linear regressions, where different “levels of intersectionality” are included in different steps of the regression (Seng et al. 2012). Another possible approach is the inclusion of interaction terms in conventional regression models (Veenstra 2011, Ballesteros 2018) and multilevel models (Evans, 2019).

METHODOLOGY

This chapter is based on the quantitative analysis of secondary data. The implemented statistical source is the third National Survey of Risk Factors (ENFR for Encuesta Nacional de Factores de Riesgo in Spanish) conducted during 2013 by the National Institute of Statistics and Censuses (INDEC) and the National Ministry of Health in Argentina (MSAL). It was carried out based on a multistage probabilistic design (by conglomerates and stratified),

throughout four stages (department, area, housing and household member) and it allows to perform estimation for population living in urban areas of Argentina with 5000 inhabitants and more. The final database is made up of 32,365 cases nationwide.

In order to analyze existing inequalities in health, we examine the indicator of self-perceived health status. The variable is divided in five categories: excellent, very good, good, fair and poor. We dichotomized the variable grouping excellent and very good health statuses, and good, fair and poor health statuses. Several epidemiological studies have shown that the reported self-perception of health status can serve as a good predictor of population's health status, its morbidity, its disability and its mortality. Self-perceived health status is generally used as a proxy for objective and subjective health status in local and international studies (Ocampo 2010). We begin by performing a bivariate analysis between this dependent variable and the household income quintile per consumer unit, as well as the educational level, the gender, the age group and the region of residence³. Then we incorporate all the previous variables in a binary logistic regression. From the logistic regression, we can find out the effect of an independent variable on the dependent one, once the rest of the independent variables are controlled. For example, it can unveil us the net effect of gender on the odds of having a positive self-perceived health status, once a set of other variables have been controlled (such as age, household income, educational level and region of residence). However, it fails to show whether, for example, gender differences remain constant among people belonging to households of diverse incomes, educational levels or age groups. In order to test this hypothesis of intersectionality between variables, we incorporate into the regressions, the following interactions between gender and educational level, between gender and income quintile and between gender and age group. We do not include any variable on race or ethnicity, just because neither the ENFR 2013, nor the great majority of the surveys conducted in

³ The household income per consumer unit arises from the division between the total household income (numerator) and the square root of the number of household members (denominator). Unlike the per capita income of the household where the simple sum of the members of the household is located in the denominator, this indicator takes into account that "economies of scale derived from family life" share resources (MSAL, 2015: 58).

Argentina, actually inquire about this issue. It should be noted that the interaction between gender and race or ethnicity, is one of the most applied in intersectional analysis (Evans 2019, 15).

We emphasize that social inequalities in the self-perception of health status have been analyzed through different models in Argentina. The majority of these studies could be framed within the additive models towards social inequalities, and they explore the effect that different independent variables have on the self-perception of health status. Some use bivariate and trivariate tables (MSAL 2006, 2011, 2015, Adaszko 2011, Observatorio de la Deuda Social Argentina 2015, Rodríguez Espínola and Filgueira 2018). Others use binary logistic regressions (Jorrat et al. 2008, MSAL 2012, Ballesteros 2014, Sarti and Rodríguez Espinosa 2018) and multilevel regressions (Alazraqui et al. 2009). Fewer studies have incorporated models of multiplicative analysis, appointing gender as the central variable. These are based on trivariate tables in which gender is considered a control variable (López et al. 2005) as well as on differential logistic regressions for men and for women (Krause and Ballesteros 2018). Thus, applying our model of analysis to the case of Argentina is truly groundbreaking, given that none of these antecedents incorporates interactions within regressions.

RESULTS

In Table 1 we present the bivariate relationship between self-perceived health status and a set of independent variables. Table 1 evidences that the highest percentages of the population with excellent or very good self-perceived health status are among those who have completed higher education (52.6%), among members of households in the 5th. income quintile (48.6%), among people who reside in Buenos Aires City (46.1%), among men (38.5%) and among those who belong to the youngest age group (53.1%). On the contrary, the level of excellent or very good self-perceived health status is low among households in the 1st. quintile of income (27.3%), among the population that completed less than elementary school (16.7%), among women (33.6%) and among people aged 65 and older (16.6%). By

regions, residents of the Northeast (28.7%), of Buenos Aires suburban area (30.0%) and of the Northwest (31.5%) have lower levels of self-perceived health status than residents of other regions. In other words, excellent or very good self-perceived health status increases as the household income and the educational level increases; also as the age decreases, among men and in the richest region of the country (and decreases in the poorest regions).

Table 1. Self-perceived health status according to selected variables. Population residing in urban areas of 5000 inhabitants and more, in Argentina, in the year 2013

		Self-perceived health status		Total
		Excellent or very good	Good, fair or poor	
Household income quintile per consumer unit	1st. quintile	27.3%	72.7%	6901
	2nd. quintile	30.3%	69.7%	6476
	3rd. quintile	34.8%	65.2%	6669
	4th. quintile	40.3%	59.7%	6219
	5th. quintile	48.6%	51.4%	6035
Educational level	Less than elementary school	16.7%	83.3%	3134
	Elementary graduate - secondary undergraduate	27.0%	73.0%	12387
	Secondary graduate - university undergraduate	43.3%	56.7%	11728
	University graduate	52.6%	47.4%	5058
Region of residence	Buenos Aires City	46.1%	53.9%	2853
	Buenos Aires suburban area	30.0%	70.0%	9230
	Pampa	40.6%	59.4%	10821
	Northwest	31.5%	68.5%	3314
	Northeast	28.7%	71.3%	2375
	Cuyo	39.7%	60.3%	2084
	Patagonia	35.5%	64.5%	1689
Gender	Male	38.5%	61.5%	15352
	Female	33.6%	66.4%	17013
Age group	Aged 18 – 24	53.1%	46.9%	5355
	Aged 25 – 34	46.8%	53.2%	7090
	Aged 35 – 49	36.7%	63.3%	8603
	Aged 50 – 64	23.2%	76.8%	6416
	Aged 65 and older	16.6%	83.4%	4903
Total		35.9%	64.1%	32365

Source: Own elaboration based on the ENFR 2013.

In Table 2 we begin by presenting a binary logistic regression in Model I, in which we incorporate all the independent and the dependent variables introduced in Table 1. Given the independent variables have a certain level of correlation, the regression will allow us to observe if -once the effect of the other variables is controlled- each of the variables continues to have an effect on self-perceived health status. For example, the population of Buenos Aires City has higher incomes and educational levels than the residents of other regions. The regression will allow us to answer if -once the effects of educational level and income are controlled- the population living in Buenos Aires City continues to have greater chances of having a very good or excellent self-perceived health status. On the other hand, in Models II, III and IV, we incorporated to Model I the interaction of gender with household income quintile per consumer unit, as well as with educational level and with age group (respectively). The incorporation of these interactions will allow us to find out whether inequalities by income, educational level and age in the self-perceived health status remain constant between men and women, or if they vary significantly by gender. It should be noted that we have also attempted to carry out two other models in which we included the interaction between three variables (including gender, age group and educational level in one of them, and the interaction between gender, age group and household income quintile per consumer unit in the other). The results of these interactions were not statistically significant.

Table 2. Logistic regression: odds ratio of factors that affect very good or excellent self-perceived health status. Population residing in urban areas of 5000 inhabitants and more in Argentina in the year 2013

	Model I	Model II	Model III	Model IV
Household income quintile per consumer unit (1st. quintile reference)	-	-	-	
2nd. Quintile	1,18**	1,42**	1,18**	1,18**
3rd. quintile	1,46**	1,73**	1,46**	1,46**
4th. Quintile	1,62**	1,88**	1,62**	1,61**
5th. Quintile	2,08**	2,43**	2,09**	2,08**
Educational level (Less than elementary school reference)	-	-	-	

Table 2. (Continued)

	Model I	Model II	Model III	Model IV
Elementary graduate - secondary undergraduate	1,18**	1,18**	1,26**	1,18**
Secondary graduate - university undergraduate	1,85**	1,86**	2,08**	1,86**
University graduate	3,12**	3,12**	3,61**	3,13**
Region of residence (Buenos Aires City reference)	-	-	-	
Buenos Aires suburban area	0,61**	0,62**	0,61**	0,61**
Pampa	1,03 ⁺	1,03 ⁺	1,03 ⁺	1,03 ⁺
Northwest	0,68**	0,68**	0,68**	0,68**
Northeast	0,59**	0,59**	0,59**	0,59**
Cuyo	0,97 ⁺	0,97 ⁺	0,96 ⁺	0,97 ⁺
Patagonia	0,69**	0,69**	0,68**	0,69**
Gender (Female reference)	1,24**	1,64**	1,51**	0,97 ⁺
Age group (Aged 65 and older reference)	-	-	-	
Aged 18 – 24	6,67**	6,67**	6,62**	6,00**
Aged 25 – 34	4,24**	4,24**	4,21**	3,81**
Aged 35 – 49	2,70**	2,70**	2,68**	2,32**
Aged 50 – 64	1,38**	1,37**	1,37**	1,24**
1st. quintile of household income per consumer unit and female reference	N/C	-	N/C	N/C
2nd. quintile and male	N/C	0,68**	N/C	N/C
3rd. quintile and male	N/C	0,71**	N/C	N/C
4th. quintile and male	N/C	0,73**	N/C	N/C
5th. quintile and male	N/C	0,73**	N/C	N/C
Less than elementary school and female reference	N/C	N/C	-	N/C
Elementary graduate - secondary undergraduate and male	N/C	N/C	0,88 ⁺	N/C
Secondary graduate - university undergraduate and male	N/C	N/C	0,80 ⁺	N/C
University graduate and male	N/C	N/C	0,73**	N/C
Aged 65 and older and female reference	N/C	N/C	N/C	
Aged 18 – 24 and male	N/C	N/C	N/C	1,29**
Aged 25 – 34 and male	N/C	N/C	N/C	1,29**
Aged 35 – 49 and male	N/C	N/C	N/C	1,40**
Aged 50 – 64 and male	N/C	N/C	N/C	1,27**
Constant	0,10	0,09	0,09	0,11
Nagelkerke (Pseudo) R ²	0,19	0,19	0,19	0,19

Notes: (1) 0 = Poor, fair or good; 1 = Very good or excellent.

** p < 0,01; * p < 0,05; + p > 0,05, N/C not considered.

Source: Own elaboration based on the ENFR 2013.

In Model I we observe that all independent variables continue to have an effect on self-perceived health status once the rest of the variables are controlled. We observe that those who belong to households in the fifth income quintile have twice as many odds (2.08) of having a very good or excellent self-perceived health status than those in the first quintile. Those who completed higher education have three times (3.12) greater odds of having that very same self-perception of health status than those who reached less than primary education. On the other hand, those who reside in Buenos Aires City have greater odds of having a very good or excellent self-perceived health status than those who reside in the Northeast or Northwest, in Buenos Aires suburban area or in Patagonia; but there are no statistically significant differences with those who reside in Cuyo or in Pampa region. Men are 24% more likely than women to have this positive self-perceived health status, while younger people (aged 18 to 24) have more than six times (6.67) more odds than older adults (aged 65 and older).

In Model II we maintain the same variables as in Model I, but we also incorporate the interaction between the household income quintile and gender. Special attention must be paid to the terms of interaction, when incorporating an interaction into a logistic regression, without disregard for the original variables that are part of the interaction (in this case, household income and gender). As shown in Table 2, the effect of the rest of the variables (educational level, region of residence and age group) is not modified -or its modifications are minimal-. Regarding the original variables, the models now show the effect of each of them for the reference category of the other variable that is part of the interaction (e.g., the income effect on women's self-perceived health status). Regarding income, we see that the differences become deeper between the first quintile and the rest of the quintiles. This is because Model II points out the income effect only for women (reference category for gender in the interaction). We can say then that the women placed in the fifth quintile have 2.43 times more odds of having an excellent or very good self-perceived health status than those in the first quintile (when we considered men and women, in Model I, those odds were 2.08). In turn, now the gender variable shows the effect of being a man only for those who belong to the first income quintile. That is, men in

the first income quintile are 1.64 times more likely to have excellent or very good self-rated health than women in the same quintile (in Model I - considering gender differences for all quintiles- that value was 1.24). Finally, we observe that all the terms of the interaction are statistically significant. This means that gender differences in the self-perceived health status are statistically more important in the first income quintile than in quintiles 2, 3, 4 and 5.

In Model III we incorporate the same variables as in Model I and add the interaction between educational level and gender. Once again, the effect of the rest of the variables that are not part of the interaction is not modified. Starting with the terms of the interaction, we observe that gender differences are significantly greater among those who have not completed elementary school than among those who have completed high school (with 95% confidence level) or even higher education (with 99% confidence level). In contrast, there are no significant differences with secondary school undergraduates. When we focus on the educational level and only compare women (Model III) instead of women and men (Model I), we observe that the values of the odds ratios slightly increase for elementary graduates and secondary school undergraduates (it goes from 1.18 in Model I to 1.26 in Model III). These values also went remarkably up for those who have completed secondary school (goes from 1.85 to 2.08) as well as for those who completed higher education (goes from 3.12 to 3.61). That is to say, the differences triggered by the educational level in the self-perceived health status of women, actually increase in Model III, but these differences are more intense in the highest educational levels. On the other hand, we observe that gender differences also grow in comparison with Model I. Now, focusing only on those who have completed less than elementary studies, men have 1.51 times more odds of having a very good or excellent health status than women (in Model I -considering all educational levels- these chances were 1.24 times higher).

Finally, in Model IV we incorporate the interaction between gender and age group. As in Models II and III, the variables that are not part of the interaction have not modified their effect with respect to Model I. Focusing on the terms of the interaction, we observe that gender differences are

significantly more important in all age groups compared with the older population (65 and older). In this line, when focusing on the effect of the gender variable, we see that it ceases to be statistically significant. That means, gender differences in the self-perception of health status are not statistically significant in the population aged 65 and older (once the effect of the rest of the variables has been controlled). On the other hand, we observe that the differences due to age decrease in Model IV (which only shows the differences between women) in relation to the effect of Model I (which considers men and women). For example, in Model I, those who belong to the age group of 18 to 24 have 6.67 times more odds of reporting a very good or excellent self-perceived health status than people aged 65 and older; unlike Model IV where those odds are 6.00.

CONCLUSION

In this chapter, we pointed out the theoretical importance of intersectionality to understand social inequalities in health. At the same time, we outlined the different possible quantitative approaches that we advise (or disadvise) so as to address this topic and we postulated that -in addition to the statistical model- the theoretical interpretation of data is fundamental to develop an intersectional analysis.

Then we moved forward towards the analysis of inequalities in the self-perception of health status in Argentina. We began with a descriptive analysis, observing that those who have higher educational levels, live in higher income households, reside in the highest income regions of the country, who are also younger and of male gender, have a better self-perception of their health status. Then we incorporated the variables in a binary logistic regression. In Model I we observed that each of the independent variables retained a net effect on self-perceived health status once the remaining independent variables were controlled. So far, we had performed an additive type of analysis, which did not consider the intersectionality between different independent variables. Many Argentinean antecedents carried out the same analysis about this topic, and

their results share similarities with our results, in the fact that women, older people, and those in lower positions in the social structure (by income, educational level and/or social class) have a worse self-perception of their health status (MSAL 2006, 2011, 2012, 2015; Jorrat et al., 2008; Alazraqui et al., 2009; Adaszko, 2011; Ballesteros, 2014; Observatorio de la Deuda Social Argentina, 2015; Rodríguez Espínola and Filgueira, 2018; Sarti and Rodríguez Espinosa, 2018). As we pointed out, this type of analysis fails to disclose whether there is a differential effect in the combinatorial of the different positions of the subjects. The case of low-educated women actually raises a question, do they add up the disadvantages for being a woman and for having low educational level? Or does the combination of these social positions bring about an effect that actually worsens these two disadvantages? In order to move forward towards this intersectional analysis and to account for the multiplicative nature of social inequalities, we incorporated interactions within the logistic regression models: between gender and household income per consumer unit (Model II), between gender and educational level (Model III) and between gender and age group (Model IV). These models allowed us to observe that gender inequalities are significantly deepened among people living in households with lower economic resources (Model II) and among people with lower educational resources (Model III), but they are less intense among older adults (Model IV).

The collected data, once compared with previous studies about intersectionality between gender and social position, and its impact on the self-perceived health status, showed inconstant results. In a previous work, with the analysis of both a different survey and a different statistical model (differential logistic regressions for men and women) (Krause and Ballesteros 2018), we managed to advance in the study of Argentina. As in this chapter, we found greater gender inequalities in the self-perception of health status of low-income population. However, there are also international studies that found an inverse intersectional relationship; that is an attenuation of gender inequalities among the population with fewer economic resources (Veenstra 2011). In turn, Matthews et al. (1999) found no significant gender differences that stem from the different social classes.

The results based on the educational level relied on the age of the cohort: at the age of 33 there were no significant gender differences, while at age of 23 -in line with what we found out in our analysis- differences by educational level were significantly greater for women than for men.

One of the possible reasons to explain the interaction, in the sense detected here, is that gender relations are more asymmetric in the lower-income population than among those with greater resources (Ariza and De Oliveira 1996, Borrell et al. 2004, Sen et al. 2005, Esteban 2006). The burden of the “double shift” or “triple shift” -of remunerated work, domestic responsibilities and caregiving- seems to be greater for women pertaining to households of lower income quintiles partly because of these sociocultural dispositions but also due to the lack of economic resources to hire help. This can directly affect their health causing stress and worsening their quality of life (García Calvente et al. 2004, Sen et al. 2005, Esteban 2006), but it can also affect their health in an indirect way, due to time shortage to carry out activities which could enhance their health, such as peer socialization activities or recreational physical activity (Frisby et al. 1997, Hargreaves 1993, Hormiga-Sánchez 2015, Ray 2014, Ballesteros et al. 2018).

In turn, the weight of the double or triple shift of feminine work, according to the stage in the family life cycle, could be the reason for fewer gender inequalities between self-perceived health status among older women and men. That is to say, even though older women also suffer the feminization of caregiving (being responsible for the wellbeing of brothers, grandchildren and other family members), this burden could be less demanding than looking after children of school age and living under the same roof (Montaño Virreira 2012). There are studies carried out with older adult population that -in line with our results- have not found significant gender differences in the self-perception of health status (Fernandez-Martinez et al. 2012, Machón et al. 2016). However, there also exist other studies, which found out that men have a better self-perception of health status within this age group (Gonzalo and Paserín 2004, Razzaque et al. 2010).

In short, by applying an intersectional approach to the analysis of health inequities, we followed the international recommendations to no longer

understand the population's health as crossed by independent axes of inequality: for example, women's health, educated people's health or low-income sectors' health. On the contrary, the development of intersectionality in the field of population health aims to understand that gender –as well as any other system of inequality- should not be separated from others since these are coproduced at the macrostructural level and they are simultaneously experienced at the microsocial level. In this chapter, we verified that gender inequalities in the self-perception of health status are broadened in sectors with lower economic and educational resources; and are also less significant for the older population. This probably occurs because gender is “created” in different contexts (West and Zimmerman 1987) according to factors linked to many aspects of human life: e.g., the labor market, the distribution of domestic tasks and caregiving work at home, as well as psychosocial factors and cultural stereotypes, etc. These results have allowed us to advance in the knowledge of the complexity of the social inequalities in health in Argentina.

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