



Predisposing and enabling factors associated with Venezuelan migrant and refugee women's access to sexual and reproductive health care services and contraceptive usage in Peru

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ABSTRACT

Objective: Over 6 million migrants and refugees from Venezuela have left their country in the past decade; 1 million of them reside in Peru. Venezuelan migrant and refugee women are known to have limited access to sexual and reproductive health care services (SRHS) and contraceptive usage. To date, research to understand factors influencing access to those services is limited. This study aims to determine which enabling and predisposing factors influence Venezuelan migrant and refugee women's access to SRHS and contraceptive usage. **Methods:** This is a retrospective cross-sectional study of the first survey administered to the Venezuelan population residing in the Peru in 2018. The survey covered six cities in the country (Metropolitan Lima, Callao, Tumbes, Cusco, Trujillo, Arequipa). The sample for the study included Venezuelan migrant women of reproductive age (15–49 years old). Anderson's Behavior Model of Health Services is the conceptual framework of the investigation. Logistic regression models were fit to examine the relationship between different predisposing and enabling factors and women's access to SRHS and contraceptive usage. **Results:** The sample size includes a total of 3378 Venezuelan women of reproductive age. 50.7% of the women were between the ages of 21–30 and over 90.6% of the sample were residing in Metropolitan Lima. Only 20.2% of the women reported they had access to modern contraceptives. Results from the study suggest having insurance, residing in Trujillo, and having a higher socio-economic status were associated with more access to certain sexual reproductive health care services and contraceptive usage. **Conclusion:** This study identified different predisposing and enabling factors relevant to the access to SRHS and contraceptive usage. Difference in access and usage are particularly pronounced based on insurance status, geographical location, and socio-economic status. Displaced Venezuelans will remain abroad for an extended period of time, if not permanently. Focus should shift from providing humanitarian aid to integrating the migrants and refugees, particularly the most vulnerable groups, into the local economic and healthcare system.

1. Introduction

Since 2015 the political, economic, and humanitarian crisis in Venezuela has led to a mass movement of Venezuelans overflowing borders across South America. This unprecedented exodus represents the largest human mobilization in Latin America's recent history. As of June 2022, more than 6 million migrants and refugees¹ from Venezuela had left their country; approximately 5 million of them remain in Latin

America and the Caribbean (R4V, 2022). Receiving countries are often not prepared to manage so many migrants and refugees, causing tensions among the locals and straining public resources, particularly public health systems. Recent reports have highlighted the strain Venezuelans put on the health care systems of bordering countries by increasing demand for treatment of chronic conditions, infectious diseases, and access to prenatal care (Page et al., 2019; Taraciuk Broner, 2018; Doocy et al., 2019)

Abbreviations: ENPOVE, Venezuelan population residing in Peru survey; INEI, National Institute of Statistics and Informatics; SRHS, Sexual and reproductive health care services; SIS, Seguro Integral de Salud; EsSalud, Peruvian Social Security.

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¹ The use of the term refugee for displaced Venezuelans can be contentious, while important, a discussion on this debate is beyond the scope of this study. I use both refugee and migrants in this article because the dataset analyzed contained Venezuelans with and without refugee or asylum seeker status. However, it is important to note that given the humanitarian crisis Venezuela is currently facing, the term refugee helps to highlight the vulnerabilities of this community.

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In 2021, the majority of displaced Venezuelans resided in Colombia, Peru, and Chile (UNHCR 2021). Peru is the second largest receiving country hosting 1 million Venezuelans, who are the largest group of migrants in the country (USAID, 2021). Venezuelans in Peru have a complex array of medical needs due in part to the ongoing humanitarian crisis and limited health care services in their home country. However, the majority do not have access to the low-cost public health system in Peru due to their immigration status, as they need to be at least a permanent resident to access those services (R4V, 2018). Venezuelans entered Peru, largely through land borders, on foot and ground transportation, many endured long journeys and were in need of food, water, medical services, and lacked documentation (IOM, 2018).

Displaced women, in particular, are in higher need of health care services as they face health risks including gender-based violence and lack of access to contraception, safe abortion services and maternal health care services. Access to sexual and reproductive health care services (SRHS), including contraception and maternal care is recognized part of the right to health (Galdos Silva, 2013). Refugee and migrant women are particularly vulnerable in attaining this right, yet they do have the right to access to SRHS to prevent unwanted pregnancies or sexually transmitted diseases in the receiving countries.

Venezuelan women may present more sexual and reproductive needs because it is likely they already had limited services prior to leaving their country. Information on access to SRHS and contraceptive usage in Venezuela is limited due to the breakdown in government services. However, some research indicates that the collapse of the public health system has significantly impacted the availability and affordability of modern contraceptives. For example, the reproductive rights Coalition Equivalencies in Action (Coalición equivalencias en Acción) documented that in 2018 most forms of modern contraceptives were impossible to find (Equivalencias en Acción, 2019) and as affordable birth control methods disappear in the country, some women have been forced into unplanned pregnancies and even unsafe abortions (Turkewitz and Herrera, 2020). Staffing shortages, limited medical supplies, and breakdown of public health infrastructure have impacted access to healthcare services and affected reproductive healthcare outcomes, including an increase in maternal and infant mortality (Amnesty International, 2019)

While Venezuelan women in Peru may have increased in SRHS needs, the healthcare system in Peru is not prepared to absorb this large demand for services. A longstanding lack of investment in healthcare has had detrimental consequences on the health infrastructure in Peru and its capacity to provide SRHS even to the local Peruvian women. For example, only 53.1% of Peruvian women use modern contraceptives, which is among the lowest in Latin America (Ponce de Leon et al., 2019). A reliance on traditional forms of contraception, such as rhythm method, among Peruvian women could be due to the infrastructural shortcomings of the Peruvian healthcare system and inconsistent availability of modern contraceptives in the public health system.

Venezuelan migrant women lack access to most SRHS in Peru. According to Segundo-Paredes et al. (2020) only 3 out of 10 women reported having received SRHS. Further analysis by Segundo-Paredes et al. (2020) found that being young, married, living with a partner, and residing in the city of Trujillo increased the probability of accessing modern contraception. However, the focus was solely on modern contraceptives, eschewing any mentions of traditional methods. Given the variety of SRHS and contraceptives available, it is important to take a more expansive view of SRHS and factors that influence usage and access to these services moving beyond modern contraceptives.

Unmet contraceptive needs among Venezuelan migrants and refugees have been documented in Colombia and Brazil. Related research has been more substantial among Venezuelans in Colombia compared to any of the other countries hosting this displaced community (Rivillas-García et al., 2021; Giraldo et al., 2021; Fernández-Niño, 2019; Flórez-García et al., 2020). Colombia, as the main recipient of the Venezuelan displacement, has had one of the most robust humanitarian

responses, including measures to ensure access to SRHS. However, inequalities in access to contraceptives persist and contraceptives do not reach Venezuelan migrants who need this service the most (Rivillas-García et al., 2021). Venezuelans in Brazil also continue to face unmet needs in terms of access to family planning services, particularly access to long-term acting contraceptives despite Brazil's universal healthcare system (Bahamondes et al., 2020; Makuch et al., 2021)

Across the world, there are many access issues and barriers regarding utilization of health care services by migrants and refugees, and particularly women, who have health care needs that require attention from host countries (Cheng et al., 2018). Studies on migrant groups and health care utilization have increasingly included Andersen's model of health care utilization (Andersen, 1968; Guendelman, 1991). As it relates to SRHS and migrant groups, there are several studies that have used the model (Due et al., 2020; Fenta et al., 2006; Shao et al., 2018; Brzoska et al., 2017). The model distinguishes between variables that could facilitate or impede access to health care services and groups them into three categories: predisposing, enabling, and needs-based factors. As it relates to utilization of SRHS, predisposing factors could include age and marital status. Enabling factors refer to variables that increase the likelihood of access, including health insurance, place of residence, time of residence, and income. Need-based factors might include reproductive health condition or an indication of a reproductive condition.

To date, research to understand predisposing and enabling and factors—including access to SRHS by Venezuelan displaced women—remains limited; in part, due to the fact that Venezuelans in Peru are a recent migrant group. Given the large number of Venezuelan women currently residing in Peru and the deficit in access to SRHS, this study aims to examine which predisposing and enabling factors influence Venezuelan migrant and refugee women's access to SRHS and contraceptive usage in Peru.

2. Material and methods

2.1. Conceptual framework

I derived my conceptual framework from Andersen's model of health care utilization. As described earlier, this model distinguishes between three types of individual factors that influence utilization of health care services: predisposing, enabling and need factors (Andersen, 1968). I used this framework and the literature to guide the selection of variables that should be included in multivariate models. Predisposing factors included are age and marital status; and enabling factors included health insurance, place of residence, education, time, and socio-economic status. Need variables were not included as these variables were not in the data set that was used for the study.

I expected married or cohabitant status to exhibit a positive association with access to reproductive services because women with this status are more likely to be sexually active and therefore seek or use SRHS. Having insurance and a higher socio-economic status will also increase the likelihood to access services and contraceptive usage as these participants will have more access to the health care system. Time residing in Peru might also be positively correlated with access to reproductive services as participants who had been living in Peru for a longer time would have more information regarding how to navigate the health care system in Peru. Finally, I would expect that participants residing in more urban locations with a better healthcare infrastructure to also have more access to services.

2.2. Data and study sample

Data for this project come from a cross-sectional National Survey to the Venezuelan Population residing in Peru Survey (INEI, 2019). The National Institute of Statistics and Informatics (Instituto Nacional de Estadística e Informática-INEI), a Peruvian government agency,

conducted the survey during the months of November to December in 2018. This is the first large-scale survey providing information on housing characteristics, immigration, health, education, employment, and discrimination of Venezuelans residing in the country. The survey covered six cities in the country (Metropolitan Lima, Callao, Tumbes, Cusco, Trujillo, Arequipa) where, according to a census conducted in 2017, 85% of Venezuelan migrants reside. The sampling frame used information from the 2017 census and information from Venezuelans who had solicited a temporary residence permit. The first sampling unit of the survey was the block, a geographic area with one or more dwellings bounded by roads. The secondary sampling unit used was a dwelling within a block where there was at least one Venezuelan residing. Stratified independent probability sampling was used in each city. The sample included 3611 houses and 9487 individuals. The response rate for the survey was 99.6%; only one house declined to be part of the study. Trained personnel implemented the survey through interviews with every household member using a tablet. Additional details regarding the methodologies used to collect the data are available on the ENPOVE 2018 report (INEI, 2019). The participants of this study were Venezuelan migrant and refugee women of reproductive age who answered this survey. Women of reproductive age refer to all women aged 15–49 years (INEI, 2019; WHO, 2016).

2.3. Measurements

2.3.1. Outcome variables

This study used multiple independent variables. The outcome variables for the study are related to access to reproductive services and contraceptive usage. The question on the survey was phrased in the following way: “I would like to discuss with you about your SRHS; in other words, the different way methods someone uses to prevent a pregnancy or sexually transmitted diseases. Have you had access to any of these services?” The options included: 1. traditional birth control methods (rhythm method, basal body temperature, cervical mucus, exclusive breastfeeding), 2. modern birth control methods (hormonal, barrier, intrauterine device, permanent) 3. Emergency contraception (morning after pill), 4. HIV test and other sexually transmitted disease (STD) testing services, 5. education and counseling, 6. does not have access to those services and 7. Does not know about those services. The question was multiple choice, and participants could select more than one option. For this study, each option was considered as a dependent variable and coded as yes/no. Types of contraceptives are defined based on the answer options for the sexual and reproductive health question on the survey

2.3.2. Variables and measures

The selection of predisposing and enabling variables which could have influenced access to reproductive services were selected based on similar studies (Hernandez-Vasquez et al., 2019; Segundo-Paredes et al., 2020) and were aligned with the conceptual framework of Andersen’s model of health care utilization. The predisposing variables included were age (coded as 1 = 15 to 20, 2 = 21 to 30, 3 = 31 to 40 and 4 = 41 to 49) and marital status (single/married/cohabiting/other). The enabling factors included having health insurance at the time of the interview (uninsured/ Seguro Integral de Salud (SIS) / Peruvian Social Security (EsSalud) / private insurance). Peru’s health care system is broadly divided into public and private sectors. There are two social insurances to choose from: Seguro Integral de Salud (SIS) and EsSalud. SIS is designed for low-income individuals and EsSalud is funded by employers and paid with a percentage of the employee’s salary. There is also a set of private clinics in large cities that could be accessed with the purchase of a private insurance. Other enabling factors included were place of residence (Metropolitan Lima, Callao, Tumbes, Cusco, Trujillo, Arequipa), number of months since the arrival in Peru until the date of the survey (in months), education level (no education/full elementary/full secondary/ non-university higher education/university higher

education) and a socioeconomic status variable constructed by INEI (lower/middle/higher) (Table 1)

2.4. Statistical analysis

Descriptive statistics were used to summarize the characteristics of the participants in the sample. I report frequencies and percentages for categorical variables; and means and standard deviations for continuous variables. Since the outcome variables were dichotomous, an adjusted logistic regression was used to examine predisposing and enabling factors associated with access to SRHS and contraceptive usage. The variables were entered at once, i.e., no backward/forward selection was performed. I report adjusted odds ratios (AORs) with their respective *p* value. All analyses were conducted using R version 3.6. Estimates, which are weighted, adjust for complex survey design using the survey package in R. A value of $p < 0.05$ was considered significant.

3. Results

3.1. Sample characteristics

The sample size was 3378 Venezuelan women of reproductive age (15–49 years old). There was no missing data on any of the variables that were included in the study. Table 2 provides descriptive statistics for the sample of Venezuelan migrant and refugee women of reproductive age residing in Peru. 50.7% of the women were between the ages of 21–30, and 36% reported being single and not living with a partner. In addition, 92.6% of the women reported not having health insurance. Migrant women in the sample had on average, been living in the country for 8 months, with 90.6% of the sample residing in Metropolitan Lima. 11.8, 53.8 and 34.2% were qualified in the lower, middle, and higher socioeconomic status, respectively (Table 2)

3.2. Types of access to sexual and reproductive health care services and contraceptive usage

Table 3 reports types of access to SRHS and contraceptive usage, including absolute frequencies and percentages. Among the study sample, 20.2% of women used modern family planning methods, 7% used traditional methods, and 5.7% used emergency contraception. Thus, less than 30% of the sample used at least one family planning method. 62.0% of the women reported they did not have access to SRHS, and 6.4% reported that they did not know about those services (Table 3)

3.3. Predisposing factors and access to reproductive health care services and contraceptive usage

Table 4 reveals the results of the logistic regression model using multiple independent variables. The logistic regression models examined predisposing and enabling factors that influence access to SRHS and contraceptive usage. Predisposing factors included age and marital status. Across the board, age did not play a significant role in predicting the outcome variables, but marital status did. Women who were cohabitating, married or other were more likely to use modern forms of contraception and women who were married, or cohabitant were more likely to use emergency contraception, compared to single women.

3.4. Enabling factors and access to reproductive health care services and contraceptive usage

Predisposing factors included having insurance, place of residence, time residing in Peru, education, and socio-economic status. Insurance, place of residence and socio-economic status were three of the main enabling factors playing a role in several of the outcomes assessed as part of this study.

Table 1
Potential determinants of sexual and reproductive health care access and contraceptive usage included in the analysis and description of the measure.

Variables included	Survey question	Survey response options	Categories for analysis			
Outcome variables	Access to reproductive health care services	Did you access reproductive health care services since your arrival to Peru?	Traditional method (rhythm method, basal body temperature, cervical mucus, exclusive breastfeeding)	Yes/no		
			Modern method (hormonal, barrier, intrauterine device, permanent)	Yes/no		
			Emergency contraception (morning after pill)	Yes/no		
			HIV test or other STD testing services	Yes/no		
			Reproductive health care counseling	Yes/no		
			Does not have access to those services	Yes/no		
Covariates	Age group (years)	How old are you?	Age in years	15 to 20		
				21 to 30		
				31 to 40		
Predisposing factors	Marital status	What is your marital status?	41 to 49			
				Single		
Enabling factors	Having health insurance	Do you have health insurance? If yes, which type?	Cohabitant			
			Married			
			Other			
			No			
			SIS			
			EsSalud			
			Private insurance			
			Place of residence	What is your current city of residence?	Metropolitan Lima	
					Callao	
					Tumbes	
Cusco						
Time residing in Peru	Number of months since arrival in Peru	Trujillo				
		Arequipa				
Education level	What is your education level?	Time in months				
		No education				
		Full elementary				
		Full secondary				
		Non university higher education				
Socioeconomic status		Higher education degree				
		Lower				
		Middle				
			Higher			

SIS: Seguro Integral de Salud; EsSalud: Peruvian Social Security

Insurance

Interestingly, the odds of using modern forms of contraception were not statistically higher in those women who had SIS or EsSalud; women who had SIS or private insurance were statistically more likely to use traditional forms of contraception. The odds of having access to HIV test and other STD testing services and education and counseling were higher in women with SIS insurance (AOR = 4.69, *p* < 0.001, and AOR = 6.33 *p* < 0.001, respectively) compared to uninsured women. Women who had private insurance were also more likely to have access to reproductive health care counseling compared to uninsured women (AOR = 10.85, *p* < 0.001).

Place of residence

Women residing in Trujillo were more likely to have access to all the SRHS and contraception and less likely to not have access to services or not know about the services compared to women residing in Metropolitan Lima. Women living in Arequipa, Tumbes, and Callao had significantly lower odds of having access to certain types of SRHS and contraception and more likely to not have access to those services.

Socio-economic status

Women who were in a lower or middle socio-economic status were more likely to not have access to SRHS compared to women in a higher socio-economic status. These women were less likely to use emergency contraception compared to women in a higher socio-economic status.

4. Discussion

4.1. Summary of main findings

This study aimed to determine predisposing and enabling factors influencing Venezuelan migrant and refugee women’s access to SRHS and contraceptive usage in Peru using survey data collected on Venezuelan migrants and refugees in 2018. This study identified different predisposing and enabling factors that were relevant to this study which included insurance, place of residence, and socio-economic status.

Having insurance was associated with higher access to HIV testing and sexual and reproductive health counseling, but it was not associated with greater access to modern forms of contraception and women who had insurance were more likely to use traditional forms of contraception despite potentially having access to more effective forms of contraception. Given the infrastructural shortcomings of the healthcare services in Peru and the limited time the women had been residing in the country, it is possible that women encountered difficulties and barriers trying to navigate the healthcare system in Peru to access SRHS despite having insurance. Although not well documented, contraceptive practices among Venezuelan women might have also shifted with women becoming more accustomed to using traditional contraceptives as a result of the shortage in modern contraceptives in Venezuelan. Furthermore, since Venezuelans continue to have limited access to the healthcare system given their immigration status, it would be interesting to study how women who do not have insurance but have preference for

Table 2
 Characteristics of Venezuelan migrant and refugee women of reproductive age in Peru.

Factor	Level	Overall, n	Percentage (%)*	
Predisposing factors	Age group (years)	15–20	409	12.3
		21–30	1710	50.7
		31–40	876	25.0
		41–49	383	12.0
	Marital status	Single	1190	36.0
		Cohabitant	538	42.3
Married		231	17.3	
Enabling factors	Having health insurance	Other	43	4.2
		No	3116	92.6
		SIS	148	4.1
		EsSalud	80	2.0
		Private Insurance	34	1.1
		Place of residence	Metropolitan	1633
		Lima		
		Callao	338	6.1
		Tumbes	491	0.2
		Cusco	217	0.3
		Trujillo	454	1.7
		Arequipa	491	1.0
		Time residing in Peru, mean (sd)	In months	8.07
	Education level	No education	59	1.7
		Full elementary	339	11.2
Full secondary		764	22.8	
Non university higher education		1067	32.3	
Higher education degree		1098	31.7	
Socio-economic variable		Lower	317	11.8
		Middle	1492	53.8
	Higher	1568	34.2	

SIS: Seguro Integral de Salud; EsSalud: Peruvian Social Security.
 *Percentage considered sampling weights; sd: standard deviation.
 Unweighted N = 3378; Weighted N = 229,573.

Table 3
 Overview of access to sexual and reproductive health care services and contraceptive usage.

List of methods	Frequencies	Percentage (%)*	Percentage (%)
Traditional method (rhythm method, basal body temperature, cervical mucus, exclusive breastfeeding)	348	7.0	10.3
Modern method (hormonal, barrier, intrauterine device, permanent)	728	20.2	21.6
Emergency contraception (morning after pill)	227	5.7	6.7
HIV test or other STD testing services	170	3.0	5
Education and counseling	290	5.3	8.6
Does not have access to those services	2084	62.0	61.7
Does not know about those services	211	6.7	6.2

Total percentage are more than 100 because response options were not mutually exclusive.
 *Percentage considered sampling weights.
 Unweighted N = 3378; Weighted N = 229,573.

modern contraceptives are able to access those services in the country.
 One of the most interesting findings of the study is the significant role place of residence plays in access to SRHS and contraceptive usage.

Metropolitan Lima, being more urban and the capital of the country, has a larger number of health care facilities and potentially better services than any of the other cities where Venezuelan migrants and refugees reside. However, women residing in Trujillo reported having more access to contraception compared to those women residing in Metropolitan Lima. This is an interesting finding that deserves to be further explored. The city of Trujillo has experienced extensive agricultural growth with opportunities for unskilled labor or in this case, potential jobs for recently relocated migrants which could partially explain the study findings. Future research should consider the specific characteristics of cities where Venezuelans reside, including job market and health facilities as these might be potential factors influencing access to health care services and contraceptive use.

Despite limited access to the low-cost insurance in Peru given their immigration status, women can still receive SRHS in private clinics, local health centers or get contraceptives at pharmacies by paying for those services out of pocket which could explain the connection between socio economic status and access to SRHS found in this study. It is also possible that women with higher education were better versed at navigating the local healthcare system to access services despite their limited time residing in the country.

While Venezuelan migrants and refugee women face unique challenges in Peru, some of the factors that could limit access to SRHS might not be inherent to their status as migrants but the results of healthcare systems that lack adequate infrastructure. The average use of modern contraceptives is also low among Peruvian women and is influenced by geographical location and socio-demographic characteristics (Soriano-Moreno et al., 2020). However, the uptake of highly effective contraceptive among Peruvian women in coastal areas like Metropolitan Lima, where most Venezuelans reside, is 63.3% and much higher than the national average. Yet, migrant and refugee women have low utilization and access signaling other roots for the disparities. Future comparative studies between the local women and the Venezuelan migrants and refugees to distill the differences and specific challenges in terms of SRHS warrant attention.

4.2. Strengths and limitations

The study was conducted using the first large survey data providing information on demographics, health, and immigration status of Venezuelan migrants and refugees residing in Peru. This is the first national level survey collected on Venezuelan migrants and refugees, and the data was gathered by the largest statistics institute in Peru. However, a cross-sectional study design using secondary data has several limitations. Firstly, since the exposures and outcome are simultaneously assessed, it is not possible to determine causality. Secondly, access to SRHS, contraceptive usage and other variables included as part of the study are self-reported, so they are subject to recall bias and some of the analysis sub-groups (i.e., people with insurance) were very small. Finally, this survey did not focus on family planning; thus, the information collected on sexual and reproductive health was very limited—there were only four questions on sexual and reproductive health in the entire survey. While I included several predisposing and enabling factors in the model, the health need variables part of the Andersen model of health care was not included as this information was not collected on this survey. Future surveys targeting Venezuelan women should have questions relevant so SRH research including rurality, reproductive health conditions, number of children, husband’s approval, and women’s appraisal of the need for access to SRHS before arrival to Peru (Prata et al., 2016; Musa et al., 2016)

Despite the limitations, the study operationalizes existing survey questions in a novel way to examine a dimension of health care that has implications for development outcomes in marginalized groups. This research is also based on a national representative sample, and it is one of the first quantitative studies to analyze factors that influence Venezuelan refugee and migrant women’s access to SRHS and contraceptive

Table 4
Adjusted logistic regression model for access to sexual and reproductive health care services and contraceptive usage in Peru.

	Traditional method	Modern method	Emergency contraception	HIV test or other STD testing services	Education and counseling	Does not have access to those services	Does not know about those services
Factors	AOR	AOR	AOR	AOR	AOR	AOR	AOR
Predisposing factors							
Age group (years)	1.31	1.14	1.34	0.92	2.46**	0.69*	1.08
	21–30 (ref)						
	31–40	0.78	0.76	0.25***	0.43*	0.77	1.59***
	41–49	0.77	0.77	0.37**	0.4	1.2	1.24
Marital status	Single (ref)						
	Cohabitant	2.01**	2.46***	1.89*	0.99	0.87	0.54***
	Married	2.02	1.98***	2.8**	1.26	1.19	0.58***
	Other	0.18***	2.81**	1.41	2.36	1.31	0.47**
Enabling factors							
Having health insurance	No (ref)						
	SIS	2.84**	1.26	1.42	4.64***	6.33***	0.54*
	EsSalud	1.16	1.04	3.38	2.12	3.94**	0.77
	Private Insurance	5.64**	0.57	0.79	1.26	10.85***	0.37
Place of residence	Metropolitan Lima (ref)						
	Callao	0.24***	0.63**	0.21**	0.89	1.02	2.01***
	Tumbes	0.31*	0.53*	0.26	0.55	0.92	2.33***
	Cusco	0.98	0.65*	0.01***	0.3	0.46	1.38**
	Trujillo	10.99***	2.92***	10.22***	12.84***	11.19***	0.37***
	Arequipa	0.29***	0.47***	0.16***	1.08	0.93	3.06***
Time residing in Peru	In months	1.02	1.01	1.03	1.05*	1.03	0.98
Education level	No education	0.84	0.52	0.96	0.72	0.25	1.25
	Full elementary	0.95	0.93	0.68	0.84	0.86	1.02
	Full secondary	1.42	0.81	1.18	0.78	0.36**	1.04
	Non university higher education	1.03	1.02	0.64	0.73	0.86	0.96
	Higher education degree (ref)						
Socio-economic status	Lower	0.76	0.85	0.31**	0.68	0.93	1.68**
	Middle	0.67	0.46***	0.59*	1.06	0.85	2.22***
	Higher (ref)						

SIS: Seguro Integral de Salud; EsSalud: Peruvian Social Security; AOR: Adjusted Odds Ratio.

p value < 0.05* p < 0.01** p < 0.001***.

Unweighted N = 3378; Weighted N=Weighted N=229,573.

usage in Peru.

4.3. Future research

Given the increased influx of Venezuelan women of reproductive age in a state of vulnerability, future studies should use other methodologies and approaches that consider the nuance of contraceptive use. Such research should be conducted with an intention to understand the health care needs of this population, ways they experience the utilization of health care services, barriers they face when accessing services and their unique challenges compared to the local women. Methodological approaches could include surveys focusing on SRHS and contraception that dive deeper into the factors considered as part of this study. Qualitative studies, in particular, would also allow for a more in-depth interpretation and understanding of the realities faced by Venezuelan migrant and refugee women as they navigate the Peruvian health care system to access SRHS

5. Conclusion

As the humanitarian situation continues to deteriorate in Venezuela and Venezuelan migrants and refugees start to settle down in Peru, it is evident that Venezuelans will remain abroad for an extended period of time, if not permanently. Policy makers should be prepared to respond to their healthcare needs. Focus should be placed on the integration of these migrants into the health care system and an economic investment

in this system that favors both the locals and the migrants. Decreased access to SRHS and low contraceptive use, particularly for a vulnerable migrant group, could have profound implications for women’s reproductive health empowerment, overall health, and wellbeing. Having insurance, residing in Trujillo and higher socio-economic status were associated with more access to services. Public health policies aiming at giving Venezuelan women’s access to SRHS and increasing contraceptive usage should be considered.

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Ethics approval and consent to participant

The study was exempt from review because the data are anonymized and publicly available.

Declaration of Competing Interest

The author declares that she has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper

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