



















Original Article

# Influence and presumption of the vaccine against Covid-19 in South American families

Influência e presunção da vacina contra a Covid-19 em famílias sul-americanas

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## Abstract

Faced with the uncertainty of whether the vaccines against Covid-19 are effective or not and faced with living or dying, it is important to know the perception and expectation of their acceptance. The main aim of the study to analyze the perception and expectation of the vaccine against Covid-19 that South American families have in an urban area of De Pasco. Descriptive, cross-sectional study, simple random sampling of 197 families. The participants were recruited digitally through a neighborhood leadership and an online survey was applied with prior consent. The logistic regression analysis was performed in EPIDAT 4.1 with a significance level of 5%. Regarding the desire to be vaccinated, it is worth noting that a family member died from the coronavirus, hence the health personnel must continue with the preventive promotional work of vaccination in order to obtain favorable results in the entire population. The majority (100%) have a favorable perception and expectation about the vaccine against Covid-19 ( $\chi^2 = 132.83$ ) and the p-value (0.00); As regards the desire to be vaccinated, it is worth noting having had a family member die from the coronavirus, hence the health personnel must continue with the preventive promotional work of vaccination in order to obtain favorable results in the entire population.

**Keywords:** perception, vaccine, expectation, suburbs, Covid-19.

## Resumo

Diante da incerteza quanto à eficácia das vacinas contra a Covid-19 e diante da possibilidade de viver ou morrer, é importante conhecer a percepção e a expectativa de sua aceitação por parte da população. O objetivo principal do presente estudo é analisar a como a vacina contra a Covid-19 é vista pela população estudada e quais são as expectativas que famílias sul-americanas de uma área urbana de Pasco têm em relação a esta vacina. Este é um estudo descritivo, transversal, usando uma amostragem aleatória simples de 197 famílias. Os participantes foram selecionados digitalmente através do contato com uma liderança local e uma pesquisa *online* foi aplicada com o consentimento prévio dos indivíduos. A análise de regressão logística foi realizada no EPIDAT 4.1 com nível de significância de 5%. Acerca do desejo de se vacinar, é válido enfatizar que há falecimentos de familiares devido ao coronavírus e, portanto, é necessário que a equipe assistencial continue com o trabalho preventivo de incentivo à vacinação para obter resultados favoráveis para toda a população. De acordo com os resultados encontrados no presente estudo, a maioria (100%) dos participantes demonstrou ter uma percepção e expectativa favoráveis sobre a vacina contra a Covid-19 ( $\chi^2 = 132,83$ ), com valor-p (0,00).

**Palavras-chave:** percepção, vacina, expectativa, subúrbios, Covid-19.

## 1. Introduction

One of the most economical ways to stop the spread of Covid-19 throughout the world, including South America, was to vaccinate everyone. Thus, a sizable portion of the populace declined to receive vaccinations (Neumann-

Böhme et al., 2020). However, health personnel caring for people positive for Covid-19, as well as their relatives, were more likely to be vaccinated (Dror et al., 2020). In China, UK, there was strong demand and wide acceptance

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of the Covid-19 vaccine (Sonawane et al., 2021; Wang et al., 2020). However, the lowest Covid-19 vaccine acceptance rates were found in Kuwait (23.6%), Jordan (28.4%), Italy (53.7%), Russia (54.9%), Poland (56.3%), USA (56.9%) respectively (Sallam, 2021). On the other hand, in Iran, there was a higher acceptance rate (70%) compared to other Middle Eastern countries (Omidvar and Firouzbakht, 2022). Likewise, there was a high willingness to receive the Covid-19 vaccine, highlighting sociodemographic factors and risk perceptions (Terry et al., 2022). Approximately 68% of all respondents supported vaccination against Covid-19, but side effects, efficacy and duration of trials remained concerns (Pogue et al., 2020).

In Latin America, eight out of 10 adults intended to get vaccinated and at the same time feared adverse effects (Urrunaga-Pastor et al., 2021). On the other hand, the acceptance of being vaccinated against Covid-19 produced distrust in the population, emerging conjectures about efficacy, possible side effects, among other factors (WHO, 2020). However, the opinions and attitudes regarding Covid-19 and Covid-19 vaccines highlight the distrust towards them, especially their effectiveness and safety (Bennett et al., 2022; Kues et al., 2022).

In Peru, the prevalence of the intention to vaccinate was 74.9% (Herrera-Añazco et al., 2021). Likewise, there is a group of people who are insecure about receiving the vaccines against Covid-19 (Tenorio-Mucha et al., 2022). The intention to get vaccinated against Covid-19 reached 75% in health workers with discrepancies between occupational categories (Gagneux-Brunon et al., 2021). The results indicated that 68 and 65% agreed to get vaccinated for themselves and their dependents, respectively. Risk perceptions (severity and susceptibility to Covid-19) were associated with vaccine acceptance (Viswanath et al., 2021). The overall intention to get vaccinated against Covid-19 during the first year of the pandemic fluctuated between 27.7% and 93.3%, sociodemographic differences, risk perceptions, and susceptibility to the disease stood out. Likewise, he highlighted that health professionals in particular have greater doubts about vaccines related to the efficacy of vaccines and mistrust towards health authorities (Al-Amer et al., 2022; Lazarus et al., 2022).

## 2. Methodology

The study was carried out in two districts: Jesus María and Ate in the province of De Pasco-Peru, at an altitude of 154 meters above sea level (masl), with average annual temperatures ranging from 15 to 27 °C. Sampling was carried out between the months of March and April 2022.

For the study, the non-experimental design was considered, of a correlational type carried out in a sample of 197 families from the districts of De Pasco selected through non-probabilistic and convenience sampling.

To evaluate the variables, an online questionnaire on perception and expectation of the covid-19 vaccine was used, prepared by the authors based on the bibliographic review and is made up of questions about general data on perception and expectations, then both were classified. variables in favourable, moderately favorable and

unfavorable. The instruments were subjected to validity tests through expert judgment.

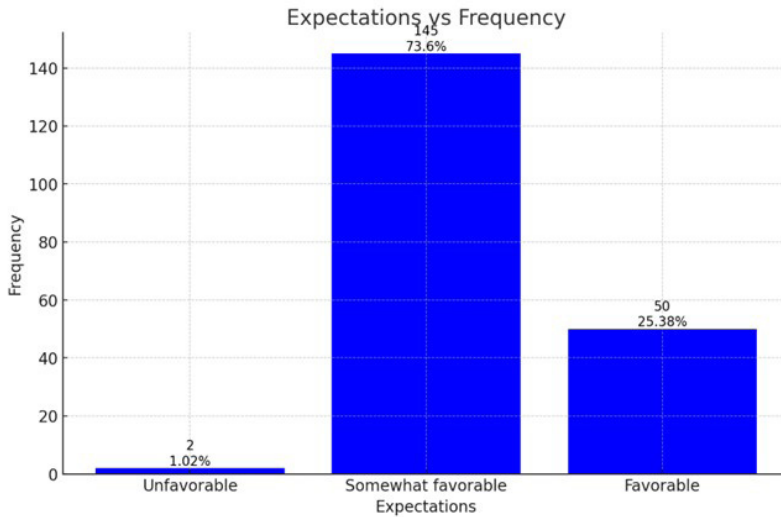
The reliability and the coefficient were carried out with Cronbach's Alpha according to the scale of (0.74) on the perception and expectation of the vaccine against Covid-19, it is located between the interval of 0.72 to 0.99, indicates that the instrument has excellent reliability (Fernández Liporace et al., 2009). The results were expressed as a percentage, with a 95% confidence interval. For statistical analysis processing, the statistical package SPSS version 22 was used. For the correlation, the Chi -square statistical test was used. presenting the results in simple tables and double entry. Likewise, the study considered the ethical principles of research such as anonymity and reliability of the data and to participate in the study, informed consent was applied with the option to participate or not in the instrument.

## 3. Results

67.51% (133) of the families surveyed have a favorable perception and expectation of the vaccine against Covid-19, likewise, 31.98% (63) have a moderately favorable perception and only 0.51% (1) of families have an unfavorable perception of the Covid-19 vaccine (Figure 1). The Chi square obtained ( $\chi^2 = 132.83$ ) and the p-value (0.00) indicate that the perception and expectation of the Covid-19 vaccine is positive.

Most of the families surveyed 84.26% (166) have a favorable perception of the Covid-19 vaccine, 13.71% (27) have a moderately favorable perception and only 2.03% (4) present an unfavorable perception of the vaccine against Covid-19 (Table 1, Figure 2).

In relation to the age of the families surveyed in the three age groups, the majority have a favorable perception: from 18 to 29 years old, 85.23% (75), from 30 to 59 years old, 82.25% (78) and from 60 years and over 100.00% (13). In the study sample divided by gender, it can be seen that the majority have a favorable perception: Male 83.82% (75) and Female 84.50% (109). According to the religion professed by the respondents, the majority present a favorable opinion: the Catholic religion 86.86% (119), Evangelical 66.67% (16), agnostic 88.89% (8) and another religion 85.19% (23). In relation to the educational level, the majority have a favorable perception: secondary 93.33% (14), higher non-university 61.11% (11) and 86.50% (141) university, while at the primary level All 100.00% (1) of those surveyed have a moderately favorable perception. According to the occupation, it can be seen that the majority present a favorable perception: independent worker 88.89% (24), dependent worker 81.52% (75), domestic worker 100.00% (6), student 89.55% (60) and other 100.00% (1). With respect to marital status, the majority present favorable perceptions: married 95.35% (41), divorced 100.00% (4), single 88.70% (102), cohabiting the 78.26% (18) and with respect to another marital status of the respondents, half 50.00% (1) have a moderately favorable perception and the other 50.00% (1) have a favorable perception respectively.

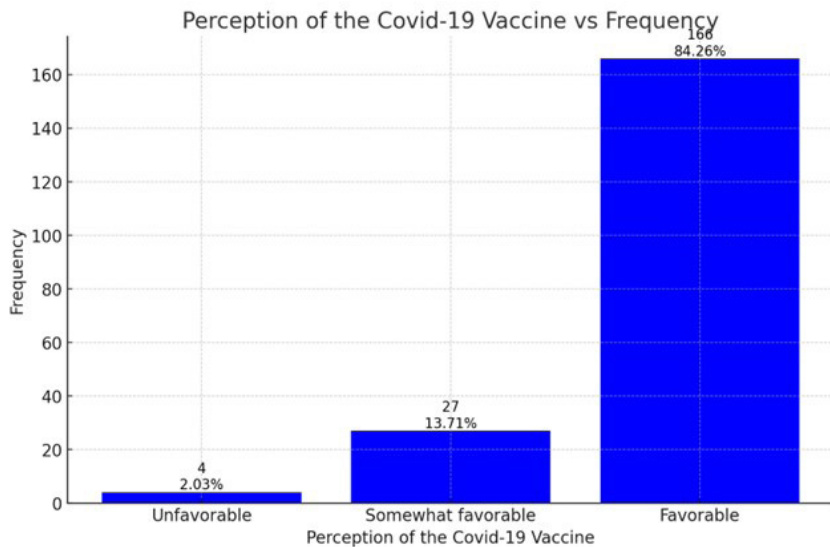


**Figure 1.** Perception and expectations of the vaccine against Covid-19 in South American families.

**Table 1.** Perception of South American families in different areas about the vaccine against Covid-19 according to sociodemographic data.

|                       | Perceptions |       |                      |        |           |        | Total   |        |
|-----------------------|-------------|-------|----------------------|--------|-----------|--------|---------|--------|
|                       | Unfavorable |       | Moderately favorable |        | Favorable |        | fi      | %      |
| Age                   | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| From 15 to 30 years   | 2           | 2.27  | eleven               | 12.50  | 75        | 85.23  | 88      | 100.00 |
| From 31 to 60 years   | 2           | 2.08  | 16                   | 16.67  | 78        | 82.25  | 96      | 100.00 |
| 60 years and over     | 0           | 0.00  | 0                    | 0.00   | 13        | 100.00 | 13      | 100.00 |
| Sex                   | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| Male                  | one         | 1.47  | 10                   | 14.71  | 57        | 83.82  | 68      | 100.00 |
| Feminine              | 3           | 2.32  | 17                   | 13.18  | 109       | 84.50  | 129     | 100.00 |
| Religion              | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| Catholic              | 4           | 2.92  | 14                   | 10.22  | 119       | 86.86  | 137     | 100.00 |
| Evangelical           | 0           | 0.00  | 8                    | 33.33  | 16        | 66.67  | 24      | 100.00 |
| Agnostic              | 0           | 0.00  | one                  | 11.11  | 8         | 88.89  | 9       | 100.00 |
| Other                 | 0           | 0.00  | 4                    | 14.81  | 23        | 85.19  | 27      | 100.00 |
| Education level       | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| Primary               | 0           | 0.00  | one                  | 100.00 | 0         | 0.00   | one     | 100.00 |
| Secondary             | 0           | 0.00  | one                  | 6.67   | 14        | 93.33  | fifteen | 100.00 |
| Non-university higher | 2           | 11.11 | 5                    | 27.78  | eleven    | 61.11  | 18      | 100.00 |
| Academic              | 2           | 1.22  | twenty               | 12.27  | 141       | 86.50  | 163     | 100.00 |
| Occupation            | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| Independent worker    | 0           | 0.00  | 7                    | 25.93  | 24        | 88.89  | 31      | 100.00 |
| Dependent worker      | 3           | 3.26  | 14                   | 15.22  | 75        | 81.52  | 92      | 100.00 |
| Domestic worker       | 0           | 0.00  | 0                    | 0.00   | 6         | 100.00 | 6       | 100.00 |
| Student               | one         | 1.49  | 6                    | 8.96   | 60        | 89.55  | 67      | 100.00 |
| Other                 | 0           | 0.00  | 0                    | 0.00   | one       | 100.00 | one     | 100.00 |
| Civil status          | fi          | %     | fi                   | %      | fi        | %      | fi      | %      |
| Married               | one         | 2.33  | eleven               | 25.58  | 41        | 95.35  | 53      | 100.00 |
| Divorced              | 0           | 0.00  | 0                    | 0.00   | 4         | 100.00 | 4       | 100.00 |
| Single                | 2           | 1.73  | eleven               | 9.57   | 102       | 88.70  | 115     | 100.00 |
| Cohabitant            | one         | 4.35  | 4                    | 17.39  | 18        | 78.26  | 23      | 100.00 |
| Other                 | 0           | 0.00  | one                  | 50.00  | one       | 50.00  | 2       | 100.00 |

Note: fi = frequency



**Figure 2.** Perception of the vaccine against Covid-19 in South American families.

**Table 2.** Perception of South American families in different urban areas about the vaccine against Covid-19 according to the consequences of the disease.

|   | Perceptions |       |                      |       |            |        | Total |        |
|---|-------------|-------|----------------------|-------|------------|--------|-------|--------|
|   | Unfavorable |       | Moderately favorable |       | Favorable  |        | fi    | %      |
| Presented the disease                         | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| Not   | 4           | 6.15  | 8                    | 12.31 | 53         | 81.54  | 65    | 100.00 |
| I'm not sure                                  | 0           | 0.00  | 12                   | 11.54 | 92         | 88.46  | 104   | 100.00 |
| Yes   | 0           | 0.00  | 7                    | 25.00 | twenty-one | 75.00  | 28    | 100.00 |
| A deceased relative                           | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| Not   | 4           | 5.19  | 9                    | 11.69 | 64         | 83.12  | 77    | 100.00 |
| I'm not sure                                  | 0           | 0.00  | 18                   | 0.00  | 96         | 84.21  | 114   | 100.00 |
| Yes   | 0           | 0.00  | 0                    | 0.00  | 6          | 100.00 | 6     | 100.00 |
| Received the vaccine                          | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| I decided not to get vaccinated               | one         | 50.00 | one                  | 50.00 | 0          | 0.00   | 2     | 100.00 |
| I haven't received any dose yet               | 0           | 0.00  | 2                    | 66.67 | one        | 33.33  | 3     | 100.00 |
| Yes, I received the 2 doses                   | 3           | 2.75  | 16                   | 14.68 | 90         | 82.57  | 109   | 100.00 |
| I received the 2 doses, plus the booster dose | 0           | 0.00  | 8                    | 9.64  | 75         | 90.36  | 83    | 100.00 |

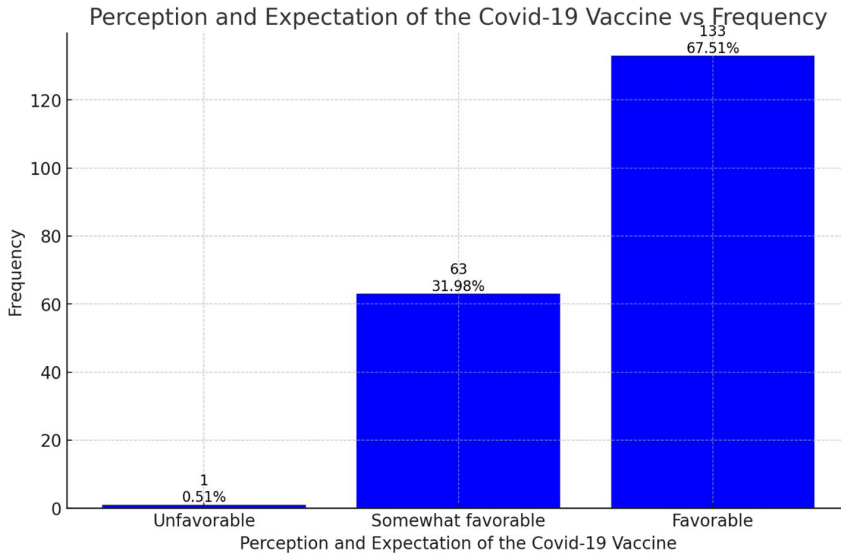
Note: fi = frequency

In Table 2, according to whether they presented the disease, it can be seen that the majority have a favorable perception: When they did not present the disease, 81.54% (53), when they are not sure if they presented the disease, 88.46% (92) and when they did present the disease, 75% (21). In relation to whether they had a relative die from Covid-19, the majority present a favorable perception: When a relative did not die, 83.12% (64), when they are not sure of a deceased relative, 84.21% (96) and when he did have a deceased relative, 100%. The perception if they received the vaccines, it can be seen that those who received the two doses or more do present a favorable perception: if they received the two doses, 82.57% (90) and if they received the three doses, 90.36% (75), while those who decided not to get vaccinated, 50% (1) have

an unfavorable perception and another 50% (1) have a moderately favorable perception and those who have not yet received any doses, the majority have a moderately favorable perception 66,67% (2).

Figure 3 shows that the majority, 73.60% (145) of the families surveyed, have moderately favorable expectations about the vaccine against Covid-19, 25.38% (50) have a favorable expectation and only 1.02% (2) have unfavorable expectations of the Covid-19 vaccine.

Table 3 shows that, in relation to age, in two age groups the majority have a favorable expectation: from 18 to 29 years, 75.00% (66) and from 30 to 59 years, 76.04% (73), while the majority of respondents aged 60 and over 53.85% (7) have a favorable expectation. According to gender, it can be seen that the majority also



**Figure 3.** Expectations of South American families in different urban areas regarding the vaccine against Covid-19.

**Table 3.** Expectations of South American families in different areas regarding the vaccine against Covid- 19 according to sociodemographic data.

|                       | Expectations |      |                      |        |            |        | Total   |        |
|-----------------------|--------------|------|----------------------|--------|------------|--------|---------|--------|
|                       | Unfavorable  |      | Moderately favorable |        | Favorable  |        | fi      | %      |
| Age                   | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| From 15 to 30 years   | 0            | 0.00 | 66                   | 75.00  | 22         | 25.00  | 88      | 100.00 |
| From 31 to 60 years   | 2            | 2.08 | 73                   | 76.04  | twenty-one | 21.88  | 96      | 100.00 |
| 60 years and over     | 0            | 0.00 | 6                    | 46.15  | 7          | 53.85  | 13      | 100.00 |
| Sex                   | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| Male                  | 2            | 2.94 | 49                   | 72.06  | 17         | 25.00  | 68      | 100.00 |
| Feminine              | 0            | 0.00 | 96                   | 74.42  | 33         | 25.58  | 129     | 100.00 |
| Religion              | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| Catholic              | 2            | 1.46 | 97                   | 70.80  | 38         | 27.74  | 137     | 100.00 |
| Evangelical           | 0            | 0.00 | 22                   | 91.67  | 2          | 8.33   | 24      | 100.00 |
| Agnostic              | 0            | 0.00 | 7                    | 77.78  | 2          | 22.22  | 9       | 100.00 |
| Other                 | 0            | 0.00 | 19                   | 70.37  | 8          | 29.63  | 27      | 100.00 |
| Education level       | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| Primary               | 0            | 0.00 | one                  | 100.00 | 0          | 0.00   | one     | 100.00 |
| Secondary             | 0            | 0.00 | 12                   | 80.00  | 3          | 20.00  | fifteen | 100.00 |
| Non-university higher | 0            | 0.00 | fifteen              | 83.33  | 3          | 16.67  | 18      | 100.00 |
| Academic              | 2            | 1.23 | 117                  | 71.77  | 44         | 27.00  | 163     | 100.00 |
| Occupation            | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| Independent worker    | 0            | 0.00 | twenty-one           | 67.74  | 10         | 32.26  | 31      | 100.00 |
| Dependent worker      | 2            | 2.17 | 69                   | 75.00  | twenty-one | 22.83  | 92      | 100.00 |
| Domestic worker       | 0            | 0.00 | 5                    | 83.33  | one        | 16.67  | 6       | 100.00 |
| Student               | 0            | 0.00 | fifty                | 74.63  | 17         | 25.37  | 67      | 100.00 |
| Other                 | 0            | 0.00 | 0                    | 0.00   | one        | 100.00 | one     | 100.00 |
| Civil status          | fi           | %    | fi                   | %      | fi         | %      | fi      | %      |
| Married               | 0            | 0.00 | 40                   | 75.47  | 13         | 24.53  | 53      | 100.00 |
| Divorced              | 0            | 0.00 | 3                    | 75.00  | one        | 25.00  | 4       | 100.00 |
| Single                | 0            | 0.00 | 87                   | 75.65  | 28         | 24.35  | 115     | 100.00 |
| Cohabitant            | 2            | 8.70 | 14                   | 60.87  | 7          | 30.43  | 23      | 100.00 |
| Other                 | 0            | 0.00 | one                  | 50.00  | one        | 50.00  | 2       | 100.00 |

Note: fi = frequency

have a moderately favorable expectation of the Covid-19 vaccine: Male 72.06% (49) and Female 74.42% (96). According to the religion professed by the respondents, they present a moderately favorable expectation: Catholic Religion 70.80% (97), Evangelical 91.67% (22), agnostic 77.78% (7) and another religion 70, 37% (19). In relation to the educational level, the majority have a moderately favorable expectation about the vaccine against Covid-19: primary 100.00% (1), secondary 80.00% (12), higher non-university 83.33% (15) and 71.77% (117) university. According to the occupation, they present a moderately favorable expectation: independent worker 67.74% (21), dependent worker 75.00% (69), domestic worker 83.33% (5), student 74.63% (50) and in another 100.00% (1) have a favorable expectation. With respect to marital status, the majority present favorable perceptions: married 75.47% (40), divorced 75.00% (3), single 75.65% (87), cohabiting 60.87% (14) and with respect to another marital status of the respondents, half 50.00% (1) have a moderately favorable expectation and the other 50.00% (1) have a favorable expectation.

In Table 4, according to whether they presented the disease, it can be seen that the majority have a favorable expectation: When they did not present the disease, 81.54% (53), when they are not sure if they presented the disease, 88.46% (92) and when they did present the disease, 75.00% (21). In relation to whether they had a relative die from Covid-19, the majority present a favorable expectation: When a relative did not die, 83.12% (64), when they are not sure of a deceased relative, 84.21% (96) and when he did have a deceased relative, 100.00%. The expectation based on whether they received the vaccines, those who received the two doses or more if they present a favorable expectation: if they received the two doses 82.57% (90) and if they received the three doses 90.36% (75), while those who decided not to get vaccinated, 50.00% (1) have an unfavorable expectation and another 50.00% (1) have a moderately favorable expectation and those who have

not yet received any doses, the majority have a moderately favorable expectation 66, 67% (2) families respectively.

#### 4. Discussion

Regarding the perception of vaccines against Covid 19 in South American families in an urban areas, the majority have a favorable perception and expectation, and in relation to perception, the majority also have a favorable perception, according to sociodemographic data, the perception is favorable in the group between 18 and 29 years old, female, in agnostics, having completed high school, being an independent worker and having a married marital status. And according to the consequences of the disease, 100% have a favorable perception when they had a deceased relative.

The results agree with (Vidal-Cuellar et al., 2022), the perception of Covid 19 vaccination in a hospital in South America, it was found that the majority of older adults have a positive perception, 91.55% received their vaccine and 65.43% report that the vaccines are safe. Similarly, Jurado-Galván et al. (2022), in the study on factors associated with Covid 19 vaccination in the rural area of Chupaca-Peru, found that those in the agricultural sector did not want to be vaccinated (value p=0.00), those who have not had the disease (value p= 0.05) and those who do not know if they have had the disease (p value=0.02) ; on the contrary, those who most wanted to be vaccinated were those in the health sector (p value=0.03) . These data are interesting to be treated by the health services in order to find the best strategy for the majority of the population to get vaccinated .

In relation to the associated factors, in a rural community in Ecuador, the relatives of the elderly who received the vaccine against Covid-19, maintain that the vaccination is positive since it prevents the severe form of the disease and although there are reactions adverse events, the advantage

**Table 4.** Expectations of South American families in different areas regarding the covid-19 vaccine according to the consequences of the disease.

|   | Expectation |       |                      |       |            |        | Total |        |
|---|-------------|-------|----------------------|-------|------------|--------|-------|--------|
|   | Unfavorable |       | Moderately favorable |       | Favorable  |        | fi    | %      |
| <b>Presented the disease</b>                  | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| Not   | 4           | 6.15  | 8                    | 12.31 | 53         | 81.54  | 65    | 100.00 |
| I'm not sure                                  | 0           | 0.00  | 12                   | 11.54 | 92         | 88.46  | 104   | 100.00 |
| Yes   | 0           | 0.00  | 7                    | 25.00 | twenty-one | 75.00  | 28    | 100.00 |
| <b>A deceased relative</b>                    | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| Not   | 4           | 5.19  | 9                    | 11.69 | 64         | 83.12  | 77    | 100.00 |
| I'm not sure                                  | 0           | 0.00  | 18                   | 0.00  | 96         | 84.21  | 114   | 100.00 |
| Yes   | 0           | 0.00  | 0                    | 0.00  | 6          | 100.00 | 6     | 100.00 |
| <b>Received the vaccine</b>                   | fi          | %     | fi                   | %     | fi         | %      | fi    | %      |
| I decided not to get vaccinated               | one         | 50.00 | one                  | 50.00 | 0          | 0.00   | 2     | 100.00 |
| I haven't received any dose yet               | 0           | 0.00  | 2                    | 66.67 | one        | 33.33  | 3     | 100.00 |
| Yes, I received the 2 doses                   | 3           | 2.75  | 16                   | 14.68 | 90         | 82.57  | 109   | 100.00 |
| I received the 2 doses, plus the booster dose | 0           | 0.00  | 8                    | 9.64  | 75         | 90.36  | 83    | 100.00 |

of getting vaccinated is always greater. They also consider that all doubts about the vaccine should be informed and clarified and that there should be no preference for certain vaccines, all in order that the majority of users have a satisfactory perspective on vaccination (Changoluisa Tiglla, 2021) and on the perception of vaccinating their children under 12 years of age, 83.5% intend to vaccinate them and 16.5% would not vaccinate because they consider it unnecessary, that it does not protect them and they fear adverse effects; Likewise, the greatest intention to vaccinate them is associated with residing in the jungle or in the mountains, that their children may be infected, that they develop serious symptoms or that they may die from Covid 19. Similarly, 55.9% refers that they would vaccinate their children when the vaccines are available, 57.7% would vaccinate them with Pfizer, 73.8% think that the vaccine is safe and would not develop adverse effects (Gonzales-Zamora et al., 2022).

In relation to the expectations for getting vaccinated against COVID-19, these are favorable to moderately favorable in the study group according to demographic data or some experience with the disease. In relation to age and marital status, all are favorable because the disease is now no longer related to certain age groups as it was at the beginning (Águila-Gordo et al., 2021). Regarding sex, religion and occupation, in all, moderately favorable expectations are observed in the majority, it may be because there are still groups that are not predisposed to mass vaccination for fear of side effects (Rios-González, 2021).

Regarding the expectations of the population and their experiences of close illness, they were positive for the vaccine against COVID-19, whether or not they presented the disease; as if a relative died or not. But if you had a deceased relative, the expectation is one hundred percent because they see their hopes that the event will not happen again with vaccination (González-Melado and di Pietro, 2021). Therefore, it would be necessary to take advantage of the high expectations of the population to conclude and continue with the vaccination against COVID-19 (Gómez García et al., 2022).

In Ipsos (2022), about the expectations for the vaccination of Covid 19, it is revealed that 71% of adults have the expectation that Covid 19 will remain permanently among us, 63% of the participating countries consider that the vaccine should be mandatory, 32% oppose it, 51% in China and 85% in the Netherlands believe that the disease and its variants will never be stopped despite sanitary measures. Likewise, 71% support vaccination to enter sporting events, 69% to travel, 66% to enter restaurants and 64% for work.

## 5. Conclusions

According to the proposed objectives, it is demonstrated that the majority of South American families in different areas have a favorable perception and expectation of the vaccine against Covid-19 ( $\chi^2 = 132.832$ ) and the p-value (0.00).

In relation to perception, the majority also have a favorable perception, according to sociodemographic data the perception is favorable in the group of 18 to 29

years, female, in agnostics, having completed high school, being an independent worker and married marital status.

According to the consequences of the disease, 100% have a favorable perception when they had a deceased relative. Regarding the expectation, the majority have moderately favorable expectations, and according to sociodemographic data, the expectation is favorable when they are between 18 and 29 years old, female, evangelical religion, primary studies, domestic worker and being single. And according to the consequences of the disease, the expectation is favorable when you are not sure if you had the disease, had a deceased relative and those who received the three doses of vaccines. Hence, health personnel must continue with the promotional preventive work of vaccination in order to obtain 100% favorable results in the entire population.

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