

# FACTORS ASSOCIATED WITH KNOWLEDGE ABOUT OF GASTRIC CANCER IN PATIENTS IN A HOSPITAL OF LIMA- PERU, 2017

FACTORES ASOCIADOS A CONOCIMIENTOS SOBRE PREVENCIÓN DEL CÁNCER GÁSTRICO EN PACIENTES EN UN HOSPITAL DE LIMA-PERÚ, 2017

Mariela Berrospi-Zavala<sup>1a</sup>, Sussan D. Llocclla-Delgado<sup>2b</sup>, Lucy E. Correa-López<sup>3</sup>

## ABSTRACT

**Objective:** To determine the factors associated with knowledge on the prevention of gastric cancer in patients attended at the external office of the Vitarte Hospital in September - November 2017. **Methods:** Cross-sectional, analytical and observational study. The sample consisted of 321 patients who met the selection criteria. The knowledge level test on gastric cancer prevention and the Graffar test was applied. The statistical software IBM SPSS version 23 was used to analyze the data. **Results:** 62% of the surveyed population obtained a medium level of knowledge. In addition, the association of the level of knowledge, work situation, access to the internet and the socioeconomic stratum was statistically significant ( $p = 0.019$ ,  $p = 0.018$ ,  $p = 0.001$ ). **Conclusion:** It is concluded that the level of low and medium knowledge about gastric cancer prevention was significantly associated with having no occupation, not having access to the internet and belonging to a socioeconomic level IV and V.

**Key words:** Gastric cancer; Prevention; Knowledge; Social class. (source: MeSH NLM)

## RESUMEN

**Objetivo:** Determinar los factores asociados a conocimientos sobre la prevención del cáncer gástrico en pacientes atendidos en consultorio externo del Hospital Vitarte de Septiembre - Noviembre del 2017. **Métodos:** Estudio transversal, analítico y observacional. La muestra estuvo conformada por 321 pacientes quienes cumplieron con los criterios de selección. Se aplicó el test de nivel de conocimientos sobre prevención del cáncer gástrico y el test de Graffar. Para el análisis de los datos se empleó el software estadístico IBM SPSS versión 23. **Resultados:** El 62% de la población encuestada obtuvo nivel de conocimiento medio. Además, la asociación del nivel de conocimiento, la situación laboral, el acceso a internet y el estrato socioeconómico fue estadísticamente significativa ( $p=0.019$ ,  $p=0.018$ ,  $p=0.001$ ). **Conclusión:** Se concluye que el nivel de conocimiento bajo y medio sobre prevención de cáncer gástrico se asoció significativamente con no tener ocupación, no tener acceso a internet y pertenecer a un nivel socioeconómico IV y V.

**Palabras clave:** Cáncer gástrico; Prevención; Estrato socioeconómico; Conocimiento. (fuente: DeCS BIREME)

<sup>1</sup>Vitarte Hospital, Lima-Peru.

<sup>2</sup>University of Zulia, Maracaibo-Zulia State, Venezuela.

<sup>3</sup>Institute of Research in Biomedical Sciences, Ricardo Palma University, Lima-Peru.

<sup>a</sup>Internal medic.

<sup>b</sup>Surgeon.

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## INTRODUCTION

Gastric cancer is the second most common cancer in the world, surpassed only by lung cancer<sup>1</sup>. It has high mortality and a significant geographical variation<sup>2</sup>. Geographical variation is a characteristic of gastric cancer. The countries with the highest adjusted mortality rates are Bulgaria, Colombia, Costa Rica, Chile, China, Iceland, Japan, Portugal and some countries of the former USSR. On the contrary, countries such as the USA, India, the Philippines and most of the African countries, this neoplasm is not significant<sup>3</sup>.

The World Health Organization (WHO) mentions that gastric cancer is among the five most frequent neoplasms in the contemporary world and it causes death worldwide. Cancer is a growing problem in these countries in which an increment in this incidence is estimated, reaching 70% of new cases in 2030<sup>5,6</sup>.

In Peru, according to the National Institute of Neoplastic Diseases (INEN), the annual incidence of cancer is approximately 150.7 cases per 100,000 inhabitants, with an average of 45,000 new cases. Gastric cancer is one of the most aggressive and frequent diseases, representing nationwide 11.1% of the causes of cancer mortality in men and 8.6% in women<sup>5,8</sup>. Despite its importance, gastric cancer receives little attention from research funding agencies or public health organizations. On the other hand, the National Cancer Institute annually spends approximately \$ 12 million in programs directly related to gastric cancer, only 0.2% of its budget and only 10% of this amount goes to prevention research<sup>9</sup>. In Latin America, the level of knowledge about gastric cancer prevention is generally low. According to the few studies carried out, as well as the study of Doval, where he finds that, in high school students of Bogotá, Colombia; the level of knowledge about risk factors of cancer was low<sup>10,12</sup>. Also, in Peru, a study tested drivers' knowledge of gastric cancer prevention in Lima, which was found to be poor; in the same way with nursing students in Huánuco<sup>15,17</sup>. This leads us to infer that the level of knowledge about gastric cancer prevention in the population of our country is low; however, there are still not enough studies to be able to affirm it. Therefore, the primary objective of this study was to determine the factors associated with knowledge about the prevention of gastric cancer in patients treated in the outpatient clinic of Hospital Vitarte during the period September - November 2017.

## METHODS

A transversal, analytical and observational study was carried out. The study consisted of 321 patients who met the inclusion and exclusion criteria. Seven variables were analyzed, of which the level of knowledge was the dependent variable, the association between this variable was evaluated with age, sex, socioeconomic level, the degree of instruction, occupation status, and Internet access.

The technique used to collect data was through the Graffar test and the knowledge level test about gastric cancer prevention.

For the analysis of the data, analytical statistics were used using the Microsoft Excel 2013 for MS Windows and the statistical software IBM SPSS version 23.

## RESULTS

According to the descriptive analysis of our surveyed population, we found that 28.97% (93) are between 31 to 40 years of age, 65% (209) belonged to the female sex, 62.62% (201) had of secondary instruction level. Likewise, 54% (174) did not work, 70% (224) did not have Internet access, 51.1% (164) belonged to the IV socioeconomic level, and only 3.1% (10) of the patients seen in the outpatient clinic of the Vitarte Hospital belonged to the V socioeconomic level.

Regarding the level of knowledge in Table 2, it is observed that 62% of the patients presented an average level of knowledge, 37% with a high level of knowledge, while, 1% with a low level of knowledge.

In table 3, it is observed that, of the patients with a medium and low level of knowledge (203), 49.26% (100) did not work, while, of the 118 patients with high knowledge, 62.71% (74) ) also did not work, this relationship being statistically significant ( $p = 0.019$ ). Likewise, the evidence showed that patients with a medium level of knowledge, and low (203), 74.38% (151) did not have Internet access, while of the 118 with high knowledge, 61.86% (73) also did not have Internet access ( $p = 0.018$ ). Finally, it was found that of the 203 patients with medium and low knowledge, 63.55% (129) belonged to a socioeconomic level IV / V compared to 38.14% (45) of patients with high knowledge ( $p = 0.001$ ).

**Table 1.** General characteristics of the patients of the Outpatient clinic of Hospital Vitarte.

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SOCIODEMOGRAPHIC VARIABLES		RECuento	%
Sex	Male	112	35%
	Female	209	65%
Age	18-30 years old	55	17.13%
	31-40 years old	93	28.97%
	41-50 years old	90	28.04%
	51-60 years old	62	19.31%
	> 61 years old	21	6.54%
Grado de instrucción	Primary	62	19.31%
	Secundaria	201	62.62%
	High school	58	18.07%
Employment situation	Employed	147	46%
	Unemployed	174	54%
Internet	Acess	97	30%
	No Access	224	70%
Socioeconomic level	II	18	5.60%
	III	129	40.20%
	IV	164	51.10%
	V	10	3.10%

**Table 2.** Level of knowledge of patients about gastric cancer prevention.

KNOWLEDGE	N°	%
Low	3	1%
Medium	200	62%
High	118	37%
Total	321	100%

**Table 3.** Bivariate analysis of the level of knowledge about gastric cancer prevention and sociodemographic variables.

		LEVEL OF KNOWLEDGE		OR	IC 95%	p
		LOW /MEDIUM	HIGH			
Age	< 40 years old	95	45	1.42	0.87-2.33	0.131
	> 40 years old	108	73			
Sex	Female	126	83	0.69	0.41-1.15	0.133
	Male	77	35			
Degree of instruction	Not superior	171	92	1.51	0.81-2.79	0.159
	Higher	32	26			
Employment situation	Unemployed	100	74	0.57	0.35-0.94	0.019
	Employed	103	44			
Internet access	No access	151	73	1.79	1.06-2.99	0.018
	With acceso	52	45			
Socioeconomic status	IV-V	129	45	2.82	1.72-4.64	0.001
	II-III	74	73			

Source: Survey applied to patients in the outpatient clinic of Hospital Vitarte.

## DISCUSSION

Based on the level of knowledge about gastric cancer prevention, 62.31% were found to have an average level of knowledge, a small proportion (0.93%) showed a low level of knowledge and 36.76% had a high level of knowledge. These results differ somewhat from the study carried out by Cutipa entitled "Level of knowledge about of stomach cancer in users of CS Primavera in El Augustino district, 2010" 15 in which it was observed that 100% (72) of users surveyed, 54% (39) obtained an average level of knowledge, 31% (22) received a low degree of knowledge and 15% (11) a high level of knowledge. Concluding that the level of knowledge of those users tends towards medium to low.

According to the association of our most representative variables found in this research, it is demonstrated through the analysis data of the interviewees which, of those who obtained a medium and low level of knowledge, did not have work (49.26%) versus 62.71 % who received a high degree of knowledge, achieving a statistically significant association ( $p = 0.019$ ). This concept can be explained because the unemployed

population has less productivity in their daily lives, adopts passive attitudes and can become little aware of the importance of their health since factors such as depression could be involved in not obtaining the expected income, thus decreasing the projections of their future. These issues would cause eating problems, sleep disorders, harmful habits, among others<sup>19</sup>.

On the other hand, having access to the internet facilitates having all kinds of knowledge in a fast and feasible way, therefore, allows users to access areas of knowledge different from those found in their daily environment. It is thus allowing them to acquire new knowledge and/or to update their information. In our study, 74.38% of the surveyed patients who obtained a medium and low level of knowledge did not have access to the internet, compared to 61.86% of those who obtained a high level of knowledge obtaining a statistically significant relationship ( $p = 0.018$ ). It could be said that people who do not have internet have less knowledge because much of the information that can be obtained about gastric cancer prevention comes from the internet; then people who do not have internet are less likely to get updated information

about this disease. This research coincides with the work done by Sandy Karyna Martinez Poves, entitled "Use of the Internet and its influence on knowledge and attitudes about the pregnancy, in pregnant women treated at the National Maternal Perinatal Institute during 2014"<sup>24</sup>. Her study concluded that the use of the internet influenced knowledge ( $p < 0.001$ ) and attitudes ( $p = 0.002$ ) about pregnancy, in pregnant women treated in the National Maternal and Perinatal Institute during 2014, since the group that made use of the Internet had "High" knowledge and "Favorable" attitude, in greater percentage, compared with those that did not use the internet. Finally, it is believed that socioeconomic status represents an important role in health inequalities. Low income could lead to having a limited or no insurance coverage which would influence access to early detection and/or treatment of diseases. These populations with low resources may have limited access to healthy nutrition leading to risky behaviors. In our study, the results obtained could associate the socioeconomic stratum with having a low, medium or high level of knowledge. It was found that 63.55% of the population that obtained a medium and low-level knowledge was in a socioeconomic stratum IV and V. These results are compared to 38.14% of those who obtained a high level of knowledge, making this association statistically significant ( $p = 0.001$ ). It could be explained in the sense that the studied population represents the lowest levels of the socioeconomic stratum. They are characterized by having a precarious condition and/or with the inability to cover their basic needs, doing the search for the daily wage a priority, and neglecting their health. Even though the Ministry of Health of the country puts programs at their disposal such as Universal Health Insurance, this population does not seek treatment or does it only when it is too late. As well as, the housing conditions in which they live, many of them with poor sanitary services, small spaces,

low nutrition food, among other characteristics favor the appearance of diseases, such as gastric cancer. Our study shares similarity with the research done by Ramiro Caballero Hoyos and Alberto Villasenor Sierra, entitled "The socioeconomic stratum as a predictor of the constant use of condoms in adolescents"<sup>25</sup> where they conclude that the socioeconomic stratum is an essential predictor of the consistent use of condoms. From this perspective, a low socioeconomic level could lead to risky behaviors in favor of diseases. It is recommended that the level of knowledge of the population should be reinforced to raise awareness about the accurate measures to prevent gastric cancer from avoiding its development since it is often a silent disease, to reduce the incidence and/or prevalence of gastric cancer.

## CONCLUSION

It is concluded that the level of low and medium knowledge about gastric cancer prevention was significantly associated with having no occupation, not having access to the internet and belonging to a socioeconomic level IV and V.

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*Correspondence:* Mariela Berrospi Zavala

*Address:* Av. Coronel Portillo 382. San Isidro, Lima, Perú.

*Telephone:* +51 957320530

*E-mail:* berrospi\_mariel@hotmail.com

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