

Frequency of treatments with conventional and implant-supported prostheses in patients treated at the dental center of a private university in Lima, Peru, over a four-year period

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KJSA: investigation, resources, data curation, writing – original draft, writing – review & editing.

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ABSTRACT

Objective: To determine the frequency of the types of conventional prosthesis and implant-supported prosthesis treatments of patients who attended the Centro Dental Docente of Universidad Peruana Cayetano Heredia (CDD-UPCH), Lima-Peru, between 2016 and 2019. **Materials and methods:** Cross-sectional study. The CDD system database was used, from which 56,347 electronic medical records were obtained. The sample size was 382 electronic medical records. The variables were the following: type of prosthetic treatment (conventional or implant-supported), sex, age, educational level and place of residence. A bivariate analysis was performed using STATA 16.0 software. **Results:** A total of 60.21% (n = 230) of the prosthetic treatments were conventional, with the removable partial prosthesis being the most frequent with 53.47% (n = 123) and the overdenture the least frequent with 5.21% (n = 12). A total of 39.79% (n = 152) of the prosthetic treatments were implant-supported, with unitary implant-supported prosthesis being the most frequent with 40.13% (n = 61) and multiple implant-supported prosthesis the least frequent with 10.53% (n = 16). **Conclusions:** The frequency of conventional prostheses was higher than that of implant-supported prostheses. The removable partial and unitary implant prostheses were the most requested treatments in their respective groups.

Keywords: dental prosthesis; dental implants; partial denture.

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INTRODUCTION

Losing dental pieces causes alveolar bone reabsorption and a continuous loss of its height and width. This entails a complication for patients who, after many years, opt for prosthetic treatment, since their alveolar ridges will not be in optimal conditions to support the prosthesis. Furthermore, the relation between both quadrants will be affected by the migration of teeth toward edentulous spaces and the extrusion of opposing teeth. All of this brings with it a greater likelihood of occurrence of occlusal interferences and issues in the temporomandibular joint (1). In addition, edentulism affects other aspects, such as phonetics, masticatory function, diet, aesthetics, self-esteem, and interpersonal relations, reducing significantly the quality of life of patients (2, 3).

Dental prosthesis is the recommended treatment for patients with partial or complete loss of dental pieces. For this research, prostheses were classified in two groups: conventional and implant-supported. The “conventional” denomination refers to those prostheses retained by teeth, mucosa, or teeth and mucosa, since, before implants existed, those treatments were the usual retention methods. Under this denomination are the single-unit fixed dental prosthesis (FDP), fixed partial denture (FPD), removable partial dentures (RPD), overdenture and complete denture (4). On the other hand, implant-supported prostheses were classified as per Misch’s proposal (5), but with certain modifications, resulting in single unit prosthesis, multiple prosthesis, hybrid prosthesis and overdenture. It is assumed that what sets the hybrid prosthesis apart is that it replaces both the missing crown and the gingiva.

Both conventional and implant-supported treatments differ in multiple aspects, from the technique, manufacturing time and procedures used, to their lifetime in the mouth, and costs. Additionally, each treatment has particular characteristics that may represent an advantage or disadvantage, depending on the situation. Therefore, it is assumed that, one treatment might be more convenient than others for each patient, based on their characteristics and expectations. Zitzmann et al. (6) found that, in a European adult population, the RPD fluctuated between 13-29% and that it was frequent in people with low income and less education. Meanwhile, the fixed denture had a higher acceptance, especially in Sweden (45%) and Switzerland (34%). When Nauma & Dhanraj (7) evaluated patient preferences on conventional fixed denture, removable denture and

implants, they discovered that fixed dentures were the preferred treatment (64%), followed by implant-supported prostheses (24%), and lastly, removable dentures (12%). They also indicated that the reason for fixed dentures to have a great acceptance was their durability and comfort.

There are various studies conducted overseas which address this topic. However, in our country there is limited scientific evidence. At the Oral Rehabilitation Specialty section of the Faculty of Stomatology at Universidad Peruana Cayetano Heredia (FAEST-UPCH, for its Spanish acronym), two studies conducted recently stood out, which determined the frequency of the types of conventional prosthesis (8) and the types of implant-supported prosthesis (9). However, there is few studies that determine the frequency of use of both types of prostheses in the Dental Teaching Center (CDD, for its Spanish acronym) of the FAEST-UPCH. For this reason, the objective of this study is to determine the frequency of use of both the conventional prosthesis treatment and the implant-supported prosthesis in patients who attended the CDD at the UPCH during 2016-2019.

MATERIALS AND METHODS

This is a cross-sectional study. Prior to its conduction, approval was requested to the Institutional Ethics Committee in Research (CIEI, for its Spanish acronym) at the UPCH, which granted it by issuing Certificate N° 366-36-21 on October 7, 2021. After that, we requested digitalized clinical records of patients with prosthetic treatment, who attended the CDD during 2016-2019 for both the undergraduate service and the Oral Rehabilitation and Oral Implantology specialties. The population consisted of 56,347 clinical records. In order to determine the size of the sample, the population was considered as limited and the variables used were qualitative. According to that, the corresponding sample size calculation formula was applied and the result of this were 382 clinical records. Subsequently, a type of sample was selected, and considering that the population was homogeneous and the study was cross-sectional, the simple random sampling method was chosen, for which the EPIDAT program was used to provide the table of random numbers.

The variables used were the following: types of prosthesis, sex, age, educational level and place of residence. The educational level went from “no level” to higher education, which could be technical or university studies, and in both cases complete

or incomplete. As per the place of residence, the 38 districts of Lima that were available in the digital platform of CDD were included. Personal data were coded with the purpose of anonymizing clinical records, using only information corresponding to the variables of interest.

Inclusion criteria consisted of clinical records with complete information, correctly recorded within the period of 2016-2019, and which belong to patients with conventional prosthesis or implant-supported prosthesis treatments. Those records with data out of interest, treating cases without prosthesis, and which had incomplete or incorrect data were discarded.

For the calculation of relative and absolute frequencies of the variables of this study, the statistical program STATA 16.0 was used. A bivariate analysis was

performed using the chi-square statistical test. The level of confidence used for the calculations was 95% with $p < 0.05$.

RESULTS

Out of the 382 clinical records analyzed, 60.21% ($n = 230$) corresponded to conventional prosthetic treatments, where RPD had the highest percentage of 53.47% ($n = 123$), and overdenture, the lowest percentage of 5.21% ($n = 12$). On the other hand, implant-supported prosthetic treatments represented 39.79% ($n = 152$) of the sample, being the single unit implant-supported prosthesis the one with the highest percentage, 40.13% ($n = 61$), and being the multiple implant-supported prosthesis the one with the lowest percentage, 10.53% ($n = 16$) (table 1).

Table 1. Frequency of conventional prosthesis and implant-supported prosthesis in patients who were treated at the Dental Teaching Center at Universidad Peruana Cayetano Heredia, Lima-Peru, 2016-2019.

Types of prosthesis	n	%
Conventional	230	60.21
Single unit fixed prosthesis	21	9.13
Fixed partial denture	18	7.82
Removable partial denture	123	53.47
Overdenture	12	5.21
Complete denture	56	24.37
Implant-supported	152	39.79
Single unit implant-supported denture	61	40.13
Multiple implant-supported denture	16	10.53
Hybrid implant-supported denture	39	25.66
Overdenture (implant-supported)	36	23.68
Total	382	100.00

n: absolute frequency; %: relative frequency.

Out of the total of RPD, 63.41% ($n = 78$) corresponded to female patients; and 36.59% ($n = 45$), to male patients. In the same manner, a considerable difference was observed for the complete denture, where 73.21% ($n = 41$) belonged to female patients, and 26.79% ($n = 15$), to males. Regarding single unit implant-

supported prosthesis, 73.77% ($n = 45$) corresponded to female patients, and 26.33% ($n = 16$) to male. For overdenture, 83.33% ($n = 30$) belonged to female patients, whereas 16.67% ($n = 6$) belonged to male patients (tables 2 y 3).

Table 2. Association of the types of conventional prosthesis based on sex, age, educational level and place of residence in patients who were treated at the Dental Teaching Center of Universidad Peruana Cayetano Heredia, Lima-Peru, between 2016-2019.

Variable	Type of prosthesis										p
	FDP		FPD		RPD		Overdenture		Complete denture		
	n	%	n	%	n	%	n	%	n	%	
Sex											
Male	10	47.60	8	44.44	45	14.63	5	41.67	15	26.79	0.402
Female	11	52.40	10	55.56	78	7.32	7	58.33	41	73.21	
Age (years old)											
20-29	1	4.76	1	5.56	18	17.07	0	0.00	3	5.36	0.143
30-39	0	0.00	1	5.56	9	26.02	1	8.33	7	12.50	
40-49	3	14.30	5	27.78	21	17.07	2	16.67	6	10.71	
50-59	5	23.80	2	11.11	32	26.02	5	41.57	17	30.36	
60-69	5	23.80	3	16.67	22	17.89	1	8.33	12	21.43	
70-79	6	28.60	6	33.32	16	13.01	1	8.33	5	8.93	
80-89	1	4.76	0	0.00	5	4.06	2	16.67	4	7.14	
90-99	0	0.00	0	0.00	0	0.00	0	0.00	2	3.57	
Educational level											
No level	2	9.52	0	0.00	1	0.81	0	0.00	2	3.57	0.416
Primary	2	9.52	0	0.00	8	6.50	0	0.00	4	7.14	
Secondary	6	28.6	6	33.33	40	32.52	2	16.67	18	32.14	
Incomplete technical	0	0.00	0	0.00	0	0.00	0	0.00	1	1.79	
Complete technical	1	4.76	0	0.00	6	4.88	0	0.00	2	3.57	
Incomplete higher education	0	0.00	1	5.56	15	12.20	0	0.00	6	10.71	
Complete higher education	10	47.60	11	61.11	53	43.09	10	83.33	23	41.07	
Place of residence											
Ancon	0	0.00	0	0.00	0	0.00	0	0.00	1	1.79	0.009
Ate	0	0.00	1	5.56	1	0.81	1	8.33	1	1.79	
Barranco	0	0.00	0	0.00	3	2.44	0	0.00	1	1.79	
Bellavista	1	4.76	0	0.00	0	0.00	0	0.00	1	1.79	
Breña	0	0.00	0	0.00	1	0.81	0	0.00	1	1.79	
Callao	0	0.00	3	16.67	3	2.44	0	0.00	0	0.00	
Carabayllo	0	0.00	0	0.00	2	1.63	0	0.00	0	0.00	
Carmen de la Legua	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	
Cercado de Lima	0	0.00	0	0.00	1	0.81	0	0.00	1	1.79	
Chorrillos	1	4.76	0	0.00	1	0.81	1	8.33	0	0.00	
Comas	3	14.30	1	5.56	6	4.88	0	0.00	2	3.57	

FDP: single-unit fixed dental prosthesis; FPD: fixed partial denture; RPD: removable partial denture; n: absolute frequency; %: relative frequency; p: statistical significance.

Table 2. (Continuation).

Variable	Type of prosthesis										p
	FDP		FPD		RPD		Overdenture		Complete denture		
	n	%	n	%	n	%	n	%	n	%	
El Agustino	0	0.00	0	0.00	0	0.00	0	0.00	1	1.79	
Independencia	1	4.76	1	5.56	8	6.50	0	0.00	2	3.57	
Jesus Maria	2	9.52	0	0.00	1	0.81	0	0.00	1	1.79	
La Molina	2	9.52	0	0.00	1	0.81	0	0.00	1	1.79	
La Perla	0	0.00	0	0.00	0	0.00	0	0.00	2	3.57	
La Victoria	1	4.76	0	0.00	2	1.63	1	8.33	0	0.00	
Lince	1	4.76	0	0.00	1	0.81	0	0.00	0	0.00	
Los Olivos	2	9.52	2	11.11	8	6.50	0	0.00	9	16.07	
Lurigancho-Chosica	0	0.00	0	0.00	1	0.81	0	0.00	1	1.79	
Magdalena del Mar	2	9.52	0	0.00	2	1.63	0	0.00	0	0.00	
Miraflores	0	0.00	0	0.00	3	2.44	1	8.33	2	3.57	
Pueblo Libre	1	4.76	0	0.00	11	8.94	0	0.00	0	0.00	
Puente Piedra	0	0.00	1	5.56	2	1.63	1	8.33	3	5.36	
Rimac	1	4.76	0	0.00	8	6.50	0	0.00	1	1.79	
San Borja	0	0.00	1	5.56	3	2.44	0	0.00	2	3.57	
San Isidro	0	0.00	0	0.00	3	2.44	2	16.67	0	0.00	
San Juan de Lurigancho	1	4.76	1	5.56	6	4.88	0	0.00	1	1.79	
San Juan de Miraflores	0	0.00	1	5.56	0	0.00	1	8.33	1	1.79	
San Luis	1	4.76	0	0.00	0	0.00	0	0.00	0	0.00	
San Martin de Porres	1	4.76	3	16.67	25	20.33	0	0.00	10	17.86	
San Miguel	0	0.00	0	0.00	4	3.25	2	16.67	5	8.93	
Santa Anita	0	0.00	1	5.56	2	1.63	0	0.00	1	1.79	
Santiago de Surco	0	0.00	2	11.11	5	4.07	2	16.67	2	3.57	
Surquillo	0	0.00	0	0.00	3	2.44	0	0.00	0	0.00	
Ventanilla	0	0.00	0	0.00	3	2.44	0	0.00	1	1.79	
Villa El Salvador	0	0.00	0	0.00	0	0.00	0	0.00	2	3.57	
Villa Maria del Triunfo	0	0.00	0	0.00	3	2.44	0	0.00	0	0.00	
Total	21	9.13	18	7.82	123	53.47	12	5.21	56	24.37	

FDP: single-unit fixed dental prosthesis; FPD: fixed partial denture; RPD: removable partial denture; n: absolute frequency; %: relative frequency; p: statistical significance.

Table 3. Association of the types of prostheses on implants based on sex, educational level, age and place of residence in patients who were treated at the Dental Teaching Center of Universidad Peruana Cayetano Heredia, Lima-Peru, between 2016-2019.

Variable	Type of prosthesis								p
	Single unit ISP		Multiple ISP		Hybrid ISP		Overdenture		
	n	%	n	%	n	%	n	%	
Sex									
Male	16	26.23	6	37.50	15	38.46	6	16.67	0.159
Female	45	73.77	10	62.50	24	61.54	30	83.33	
Age (years old)									
20-29	2	3.28	2	12.50	6	15.38	2	5.56	0.018
30-39	10	16.39	2	12.50	3	7.69	2	5.56	
40-49	10	16.39	0	0.00	10	25.64	3	8.33	
50-59	14	22.95	4	25.00	5	12.82	13	36.11	
60-69	15	24.59	4	25.00	9	23.08	9	25.00	
70-79	8	13.11	1	6.25	6	15.38	7	19.44	
80-89	2	3.28	2	12.50	0	0.00	0	0.00	
90-99	0	0.00	1	6.25	0	0.00	0	0.00	
Educational level									
No level	0	0.00	0	0.00	0	0.00	0	0.00	0.447
Primary	0	0.00	1	6.25	4	10.26	2	5.56	
Secondary	19	31.15	4	25.00	9	23.08	9	25.00	
Incomplete technical	0	0.00	0	0.00	0	0.00	0	0.00	
Complete technical	3	4.92	0	0.00	2	5.13	1	2.78	
Incomplete higher education	4	6.56	3	18.75	1	2.56	4	11.11	
Complete higher education	35	57.38	8	50.00	23	58.97	20	55.56	
Place of residence									
Ancon	0	0.00	0	0.00	0	0.00	0	0.00	0.009
Ate	2	3.28	0	0.00	1	2.56	0	0.00	
Barranco	0	0.00	0	0.00	0	0.00	0	0.00	
Bellavista	0	0.00	0	0.00	0	0.00	1	2.78	
Breña	0	0.00	1	6.25	0	0.00	0	0.00	
Callao	1	1.64	0	0.00	1	2.56	0	0.00	
Carabayllo	2	3.28	1	6.25	3	7.69	2	5.56	
Carmen de la Legua	1	1.64	0	0.00	0	0.00	1	2.78	
Cercado de Lima	1	1.64	1	6.25	1	2.56	0	0.00	
Chorrillos	1	1.64	0	0.00	1	2.56	1	2.78	
Comas	2	3.28	0	0.00	3	7.69	2	5.56	
El Agustino	0	0.00	0	0.00	0	0.00	0	0.00	
Independencia	2	3.28	1	6.25	2	5.13	3	8.33	

ISP: implant-supported prosthesis; n: absolute frequency; %: relative frequency; p: statistical significance.

Table 3. (Continuation).

Variable	Type of prosthesis								p
	Single unit ISP		Multiple ISP		Hybrid ISP		Overdenture		
	n	%	n	%	n	%	n	%	
Jesus Maria	2	3.28	2	12.50	2	5.13	0	0.00	
La Molina	0	0.00	2	12.50	0	0.00	1	2.78	
La Perla	0	0.00	0	0.00	0	0.00	0	0.00	
La Victoria	1	1.64	0	0.00	0	0.00	1	2.78	
Lince	4	6.56	1	6.25	0	0.00	0	0.00	
Los Olivos	7	11.48	1	6.25	6	15.38	5	13.89	
Lurigancho-Chosica	1	1.64	0	0.00	0	0.00	1	2.78	
Magdalena del Mar	5	8.20	0	0.00	0	0.00	0	0.00	
Miraflores	2	3.28	0	0.00	1	2.56	1	2.78	
Pueblo Libre	2	3.28	0	0.00	2	5.13	3	8.33	
Puente Piedra	1	1.64	0	0.00	1	2.56	1	2.78	
Rimac	1	1.64	0	0.00	4	10.26	0	0.00	
San Borja	0	0.00	0	0.00	0	0.00	0	0.00	
San Isidro	1	1.64	1	6.25	0	0.00	0	0.00	
San Juan de Lurigancho	5	8.20	0	0.00	2	5.13	3	8.33	
San Juan de Miraflores	0	0.00	0	0.00	0	0.00	1	2.78	
San Luis	0	0.00	0	0.00	0	0.00	0	0.00	
San Martin de Porres	10	16.39	2	12.50	7	17.95	6	16.67	
San Miguel	3	4.92	0	0.00	0	0.00	0	0.00	
Santa Anita	0	0.00	0	0.00	1	2.56	1	2.78	
Santiago de Surco	3	4.92	3	18.75	0	0.00	1	2.78	
Surquillo	1	1.64	0	0.00	1	2.56	0	0.00	
Ventanilla	0	0.00	0	0.00	0	0.00	0	0.00	
Villa El Salvador	0	0.00	0	0.00	0	0.00	0	0.00	
Villa Maria del Triunfo	0	0.00	0	0.00	0	0.00	1	2.78	
Total	61	40.13	16	10.53	39	25.66	36	23.68	

ISP: implant-supported prosthesis; n: absolute frequency; %: relative frequency; p: statistical significance.

When evaluating the variable age, a higher frequency of the conventional complete prosthesis was observed in the range between 50-59 years old with 30.36% (n = 17), and a lower frequency in the range between 20-29 years old with 5.36% (n = 3), and the range between 90-99 years old with 3.57% (n = 2). On the other hand, the removable denture had high percentages in multiple age ranges: 40-49 years old with 17.07% (n = 21), 50-59 years old with 26.02% (n = 32), and 60-69 years old with 17.89% (n = 22).

The single unit implant-supported prosthesis was used with a higher frequency in the 50-59-year-old range with 22.95% (n = 14), and in the 60-69-year-old range with 24.59% (n = 15), whereas for the hybrid implant-supported prosthesis the 40-49-year-old range was 25.64% (n = 10). For the variables age and type of prosthesis, the p-value obtained was 0.018. Therefore, there is an association between these variables (tables 2 and 3).

Regarding the educational level, in the complete higher education level, RPD, showing 43.09% ($n = 53$), and the complete prosthesis, showing 41.07% ($n = 23$), were used most frequently, followed by the secondary level with 32.52% ($n = 40$) and 32.14% ($n = 18$), respectively. Likewise, in implant-supported prosthesis, it was observed that the complete higher education level and the secondary level presented high frequencies in single unit implants with 57.38% ($n = 35$) and 31.15% ($n = 19$), respectively (tables 2 and 3).

Finally, when evaluating the place of residence, it was observed that the San Martín de Porres (SMP) district registered the highest frequency of RPD with 20.33% ($n = 25$) and of complete denture with 17.86% ($n = 10$). Regarding the implant-supported prosthesis, the highest frequencies were registered in SMP for the single unit type with 16.39% ($n = 10$), hybrid type with 17.95% ($n = 7$), and overdenture with 16.67% ($n = 6$), followed by the district of Los Olivos with 11.48% ($n = 7$) for single unit implants, 15.38% ($n = 6$) for the hybrid type, and 13.89% ($n = 5$) for overdenture. For the variables place of residence and type of conventional prosthesis, a p -value of 0.009 was obtained. Thus, there is an association between these variables (tables 2 and 3).

DISCUSSION

According to the results obtained, the RPDs were the most used conventional prostheses. This was also reported in other studies conducted nationwide (8, 10). Conversely, Zitzmann et al. (6) found a higher frequency of FPDs in countries such as Sweden, Switzerland, and the United Kingdom, and a lower frequency for RPDs. They also mentioned that there is a trend toward an increase of RPD and a decrease in complete dentures. This discrepancy with the current findings is attributed to the diagnostic factor, as well as unfavorable economic conditions and the lack of knowledge in oral health in our country, which could have an impact when choosing the treatment (11).

In the study by Bukleta et al. (12), complete dentures were the most used treatment, surpassing RPDs. This is because the researchers, different from this study, did not include the type of conventional prosthesis as a variable, limiting the study to only two variables.

About implant-supported prosthesis, the single unit type had the most frequency, while the multiple type had the lowest. In the same manner, Balarezo & Díaz (9) found that the single unit implant-supported prosthesis was used the most (58.78%), and the

multiple prosthesis was the second most used. In this study, implant-supported overdenture was the least used, which agrees with the observed by Barros et al. (13), who found a higher preference for implant-supported fixed partial denture, in comparison with implant-supported overdentures.

Currently, dental implants are a popular and most accepted option, especially for patients whose aesthetic and comfort expectations are high. However, the elevated cost of this type of treatment entails an obstacle for its use. Raj et al. (14) found that the main reason for not replacing a missing tooth is financial constraints, followed by the lack of knowledge. In the same manner, Alhaddad et al. (15) showed in their study that 40.7% did not intend to complete a prosthetic treatment due to financial constraints.

When evaluating the variable sex, there was a predominance of female cases, which was also observed in other studies (8, 9, 16). Khan & Ghani (16) suggest that the results are due to the fact that women suffer higher dental loss, or have a higher interest in replacing their missing teeth. Likewise, for both genders, RPD was the treatment used the most, agreeing with the reported by Flores (8). Ovia et al. (17) indicate that factors such as access to treatment and the attitude towards it have an impact when choosing the prosthesis.

In regard to age, conventional treatments reached their highest point in ranges between 50-59 and 70-79 years old, whereas implants were used in lower ranges, such as 40-49, 50-59 and 60-69 years old. In the same manner, from 70 years old onwards, a decrease in the total number of prosthetic treatments performed was observed. Hiltunen et al. (18) explain that, the older the patient, the less likely it is to get a fixed or removable prosthetic treatment. Conversely, visiting a dentist for prosthesis repair is more common. Furthermore, an association between age and the type of implant-supported prosthesis was identified, finding that fixed implant-supported prostheses (single unit, multiple and hybrid) were used mainly in the 50-69-year-old range, and at a lower number for age groups 20-29 and 40-49 years old. In the same manner, implant-supported overdenture was mostly used by 50-69-year-old age groups. However, since it is a removable denture, it was not an appealing alternative for the younger age groups, where it had lower frequency.

Different studies have shown that there is an association between the educational level and income level with edentulism, since those with lower income

and low educational levels are those who have lost many dental pieces and they need a rehabilitation treatment (19, 20). Nevertheless, in this study we obtained the opposite result, since people with the highest educational level were those who had the highest number of treatments.

With respect to the place of residence, the highest frequency of prosthetic treatments was registered in the districts of SMP and Los Olivos. This could be because the CDD is located in SMP, making it the most accessible option for those who reside in that area and adjacent districts, such as Los Olivos. In addition, another factor to consider is that most homes in those districts belong to middle and upper-middle socioeconomic levels (21), which facilitates access to prosthetic treatment.

There was no association between the type of prosthetic treatment and the education level. This result differs from the study by Khan & Ghani (16). However, this could be because that study held a different methodology and collected data by using the direct interview method. On the other hand, association between the place of residence and the type of conventional prosthesis was found, and it was also found that people who live near the CDD in SMP had the highest frequency of RPD. This may be because the only undergraduate service office is in this district, where students occasionally offer treatments at no cost with the objective of completing their clinical requirements. Conversely, in the case of conventional overdenture, which is a treatment that is only performed in the Specialty of Oral Rehabilitation, patients would consider other factors, such as time, accessibility and distance between their homes and the SMP office, or the one in San Isidro. In this case, the highest frequencies were obtained for conventional overdenture in districts like San Isidro, San Miguel and Santiago de Surco.

In regard to the limitations of this study, the cross-sectional methodology used did not allow for evaluation of the variables at a long term. In addition, the digital platform where clinical records were recorded does not provide information related to the patient's income. Therefore, that variable could not be included. It was neither possible to determine if the socioeconomic level is associated to the type of prosthesis. In the same manner, when evaluating the database, there was a great number of incomplete clinical records, or records that were recorded incorrectly, which reduced the final number of the sample.

With the passage of time, dental implants are used more and more frequently. However, due to financial constraints and the different patterns for dental loss, conventional prosthesis continues to be predominant in the field of oral rehabilitation. For patients, the dentist is their primary source of knowledge in oral health and treatments, which is why it is essential for the dentist to provide proper guidance and the most ideal options based on their conditions, characteristics and expectations. In this way, treatment success can be guaranteed, and the patient will be satisfied.

CONCLUSIONS

Despite the limitations found in this study, we conclude that conventional prostheses were used more frequently than implant-supported prostheses. The most used prosthesis in each group were RPDs and single unit implant-supported prosthesis, respectively. There was a predominance of the female sex and those with complete higher education level with both conventional prosthesis and implant-supported prosthesis. However, it was not statistically significant. The highest number of conventional and implant-supported treatments was carried out in patients residing in SMP and Los Olivos. In this case, there was indeed an association between the place of residence and the type of implant-supported prosthesis.

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