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Reasons for Consultation among Patients Attending Fixed Prosthetic Department of Rabat's Dental Consultation and Treatment Center: A Cross-Sectional Study

Samadi Alaa[1*], Zaghba Ahd[2], El Yamani Amal[3]

[1]Resident Doctor in Fixed Prosthesis Department, Faculty of Dental Medicine of Rabat, Mohammed V University in Rabat, Morocco
[2]Higher Education Professors in Fixed Prosthesis Department, Faculty of Dental Medicine of Rabat, Mohammed V University in Rabat, Morocco
[3]Higher Education Professor and Head of the Fixed Prosthesis Department, Faculty of Dental Medicine of Rabat, Mohammed V University in Rabat, Morocco

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***Corresponding author**: Samadi Alaa
Resident Doctor in Fixed Prosthesis Department, Faculty of Dental Medicine of Rabat, Mohammed V University in Rabat, Morocco

Abstract **Original Research Article**

Purpose*:** This research aims to describe the real reasons for patients' consultations in the fixed prosthetic department within Rabat's Dental Consultation and Treatment Center (DCTC). ***Material and Methods: A cross-sectional survey was conducted to assess the reasons that push patients to seek care with fixed prostheses. Data were collected through face-to-face personal interviews and a clinical examination using a specific questionnaire developed based on the available literature on the subject. The first part focused on general patient data, the second part consisted of a clinical examination of tooth loss and prosthetic status and the last part dealt with the different reasons for consultation themselves. The collected data were statistically analyzed. JAMOVI Version 2.3, statistical software was used. The descriptive statistics were done using Mean, standard deviation (SD), numbers (n), and percentages (%). The analysis of the association between reasons for consultation (Binary dependent variables), the edentulous situation and the prosthetic status (Independent variables) was carried out by Binary logistic regression. ***Results*:** 197 subjects were examined, including 73.1% women and 26.9% men. The main reasons motivating participants to seek fixed prosthetic treatment were: Reduction in masticatory function (91.9%), the reputation of the service and its health professionals (74.1%), Advice from a relative (54.8%) and Cost of healthcare (52.8%). Our results have notably highlighted that some clinical parameters influence certain reasons for consulting a prosthetic service; statistically significant associations were detected by Binary logistic regression between tooth loss, psychological discomfort and Proximity to the healthcare center. As well as between the prosthetic status of the participants, psychological discomfort, reputation of the service and Follow-up visit. ***Conclusion*:** This information reflects the importance of studying the therapeutic needs of patients for better care planning.

Keywords: Reasons for Consultation, Normative Needs, Subjective Needs, Fixed Prosthesis, Edentulous.

INTRODUCTION

Oral health, including dental health, has become a global public health challenge that influences not only the appearance and function, but also the biological, psychological and social state of individuals. Dental caries and periodontal problems are the main oral diseases affecting the Moroccan population; According to the epidemiological survey carried out in Morocco in 2012: dental caries and periodontal diseases affect 91.8% and 77.4% of adults respectively (Maatouk F *et al*., 2022).

In the absence of treatment, these pathologies most often lead to significant destruction of dental tissue or even tooth loss, prompting patients to request prosthetic rehabilitation in order to improve masticatory efficiency, nutritional intake and aesthetics (Fontanive V N *et al*., 2024).

In addition to the obvious compensation of edentulism and the restoration of decayed teeth. Currently, a new perspective in the search for care by prosthetic rehabilitation appears and which recognizes the feelings or the psychological essence of the patient

concerning the dental condition. Indeed, Patients often become motivated to personally consider a replacement dental procedure, after seeing the dramatic transformation of other patients from an unattractive smile to a radiant facial enhancement (Albaqawi A H *et al*., 2023).

A patient's perception of replacement therapy is also shaped by his social, cultural and educational situation. Consequently, the multiplicity of these influential parameters of the pathways to care renders a huge discrepancy between the professional normative needs and the subjective needs of patients in terms of prosthetic rehabilitation (Jelenkovic A *et al.*, 2013).

Most of the available literature on prosthetic care-seeking has been limited to statuses, demands, needs, satisfaction and quality of life related to prosthetic rehabilitation (Prakash, J *et al*., 2022). However, the literature lacks studies examining the real reasons that motivate patients to resort to prosthetic treatments.

The aim of this study was to examine reasons for consultation of the population followed within the department of fixed prosthesis in the DCTC of Rabat while presenting reasons for visiting healthcare facilities as a complex medico-socio-cultural entity.

Indeed, understanding the logic of patients in prosthetic consultations can provide a basis for further analysis for better use of prosthetic care which can be used as a for rectifying some of the disparities in this discipline.

MATERIALS AND METHODS

This descriptive and comparative cross-sectional study was conducted in the department of fixed prosthesis in the DCTC of Rabat over a four months period, from July 2024 to October 2024. Including patients with complete dentition or a partially edentulous patients aged over 18 years consulting the service during this period. The patients not willing to give consent, patients with intellectual disability or physically challenged patients as well as completely edentulous patients were excluded from the study sample.

Data was collected by a single investigator to avoid observer bias, using a personal face-to-face interviews and clinical examination. A specific questionnaire was developed exclusively to document all necessary and relevant information.

The interviews were conducted in the patients ‘mother tongue (Arabic) in order to avoid any methodological inconsistency. The clinical examination was carried out using a mouth mirror and a probe.

The first part of the form was designed to collect the patient's personal data, including age, gender, general health status and socio-educational situation.

The second part consists of recording by oral examination the prosthetic status for each arch using the WHO Oral Health Assessment form (1997) modified according to the inclusion criteria and objectives required by the study. The clinical examination also included recording the anterior and posterior edentulous situation for each arch.

The third part will be devoted to determining the specific reasons pushing patients to consult the fixed prosthesis service of DCTC-Rabat.

Some variables were included in our questionnaire because of their relevance to the collectivist Moroccan population whose family and relatives presents a factor influencing health-seeking behavior. It was therefore considered essential to take into account the "Advice from a relative" and "the reputation of the health center in society" as important factors in motivating patients to consult.

The doctor represents a symbol of trust thanks to his valued status in society. For this reason, he can be contacted (inside or outside a health center) to ask for health-related information. This is why his opinion was included in our questionnaire because of its direct impact on health-seeking behavior.

The remaining reasons for consultation included; "restoration of function and/or aesthetics", "referral by a doctor or healthcare service of another specialization", "psychological discomfort", "Cost of healthcare", "Follow-up visit" and "Proximity to the healthcare center" were taken from the available international literature.

After the design, the questionnaire was tested on a sample of thirty patients in order to validate the clarity of the questions asked and calculate the required sample size. The internal consistency of the questionnaire was adequate (Cronbach’s $\alpha = 0.72$).

Then the questionnaire was validated by an expert group formed by 3 specialists in fixed prosthesis.

In order to estimate the number of participants in the study, it was assumed with a high probability that the patients consulting the DCTC-Rabat are residents of Rabat or neighboring cities. According to information available from the High Planning Commission in 2024, the number of inhabitants of the region "Rabat-Salé-Kénitra" was 5,132,639. The maximum error value was estimated at 7% with a p-value < 0.05.

Using statistical software available at https://www.naukowiec.org/dobor.html we were able to determine the number of participants required for this study which is approximately 196.

Our study involved 197 participants meeting the inclusion criteria.

The obtained data were collected and fed into the excel sheet, they were then transferred to the JAMOVI 2.3 software which was used for statistical analysis.

Mean, standard deviation (SD), numbers (n), and percentages (%) were used to express continuous and categorical variables, respectively.

Binary logistic regression was used to assess the association between the different reported reasons for consultation (Binary dependent variables), the edentulous situation and the prosthetic status (Independent variables).

RESULTS

In this study 197 subjects were included, of whom 26.9% were males and 73.1% were females. Age ranged from 18 to 74 years, with a mean age of 40.5 ±11.9 years. 22.8% were aged between 18-29 years, 39.6% were aged between 30-44 years, 35.5% were aged 45-59 years, while only 4.1% of patients were aged 60-75 years. The majority of participants were in good general health (n = 145; 73,6 %) and did not suffer from chronic illness. A total of 83.8% (n = 165) of the cohort was classified as illiterate, meaning people who could not read or write although they did have a cursory knowledge of religious teachings.

Regarding the professional situation, 8.6% of the subjects were students, 26.4% were functionary and most of the participants (65%) were without occupation. This view is further supported by the fact that 74.1% of the subjects did not have a monthly income.

Almost the entire study population had social security coverage (99%; n=195). The characteristics of the study population in detail are described in **table 1.**

Table 1: Socio demographic and clinical characteristics of the study cohort

Characteristic		**N (%)**
Gender	Male	52 (26,9 %)
	Female	144 (73,1%)
Age in years	18- 29	41 (20,8%)
	30-44	78 (39,6 %)
	45-59	70 (35,5 %)
	60-75	8 (4,1%)
History of chronic illness	Yes	52 (26,4%)
	No	145(73,6 %)
Education	Literate (can read or write)	32 (16,2 %)
	Illiterate (cannot read or write)	165 (83,8 %)
Professional situation	Student	17 (8,6 %)
	Functionary	52 (26,4 %)
	Without occupation	128 (65%)
Monthly income	Less than 2800 DHs	2 (1%)
	Between 2800 and 6736 Dhs	23 (11,7%)
	Greater than 6736 Dhs	26 (13,2%)
	without income	146(74,1%)
Social security cover	Yes	195 (99%)
	No	2 (1%)

The highest percentage of tooth loss was marked at the posterior level for both maxillary (58.9%) and mandibular (60.9%) arches. However, anterior tooth loss had the lowest percentage for both maxillary 2 (1%) and mandibular 4 (2%) arches. In addition, 11.7% and 4.6% of the subjects presented combined (anterior and posterior) maxillary and mandibular tooth loss respectively **(Table 2).**

Table 2: The situation of Tooth loss in upper and lower jaws among study subjects

Situation of tooth loss		**N (%)**
Upper jaw	No tooth loss	56 (28,4%)
	Anterior tooth loss	2 (1%)
	Posterior tooth loss	116 (58,9%)
	Anterior and posterior tooth loss	23 (11,7%)
Lower jaw	No tooth loss	64(32,5%)
	Anterior tooth loss	4(2%)
	Posterior tooth loss	120 (60,9%)
	Anterior and posterior tooth loss	9(4,6%)

Regarding prosthetic status, most participants did not wear prostheses for both arches; maxillary (61.4%) and mandibular (79.7%). The fixed prosthesis was the type of rehabilitation most worn by the

population studied with percentages of 22.3% and 11.2% for the maxilla and mandible respectively. The prosthetic status was described in **Table 3.**

Table 3: Prosthetic status in upper and lower jaws among study subjects

Prosthetic status		**N (%)**
Upper jaw	No prosthesis present	121(61,4%)
	Fixed dental prosthesis present	44(22,3%)
	Removable partial prosthesis present	27(13,7%)
	Combined prosthesis present	5(2,5%)
Lower jaw	No prosthesis present	157(79,7%)
	Fixed dental prosthesis present	22(11,2%)
	Removable partial prosthesis present	16(8,1%)
	Combined prosthesis present	2(1%)

The most common reason for consultation of the department of fixed prosthesis in the DCTC of Rabat was functional (reduced masticatory efficiency) (91.9%), The reputation of the service and its health professionals (74.1%), Advice from a relative (54.8%) and Cost of healthcare (52.8%) were respectively the second, third and fourth most cited reasons for visits.

Aesthetics was cited by 40.6% of participants as a reason for visit and was the fifth most important reason. 38% of subjects were referred by a doctor or healthcare service of another specialization, 32.5% consulted after receiving advice from a doctor (inside or outside a health center) and 34.5% noted that psychological discomfort due to oral disease was among the reasons for seeking prosthetic rehabilitation with a fixed prosthesis.

The least common reasons for visit were Proximity to the healthcare center (13.7%) and Follow-up visit (5.1%) **(Table 4).**

Table 4: The various reasons pushing subjects to consult the department of fixed prosthesis in the DCTC of Rabat

Reason for Consultation		**N (%)**
Functional : reduced masticatory efficiency	Yes	181 (91,9%)
	No	16 (8,1%)
Aesthetic	Yes	80(40,6 %)
	No	117(59,4%)
Referral by a doctor or healthcare service of another specialization	Yes	75(38%)
	No	122 (62%)
Psychological discomfort	Yes	68(34,5%)
	No	129(65,5%)
Cost of healthcare	Yes	104(52,8 %)
	No	93(47,2 %)
The reputation of the service and its health professionals	Yes	146 (74,1%)
	No	51 (25,9%)
Follow-up visit	Yes	10 (5,1 %)
	No	187 (94,9%)
Proximity to the healthcare center	Yes	27 (13,7%)
	No	170 (86,3%)
Advice from a relative	Yes	108 (54,8%)
	No	89 (45,2%)
Request for doctor's advice	Yes	64 (32,5%)
	No	133 (67,5%)

The two most common reasons for consulting prosthetics services; aesthetics and function have been detailed in **(figure 1)** and **(figure 2).**

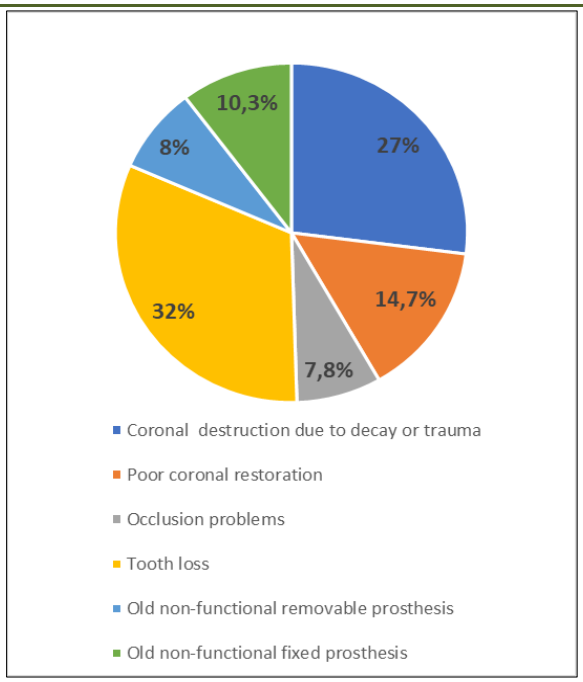

Figure 1: Different functional consultation reasons

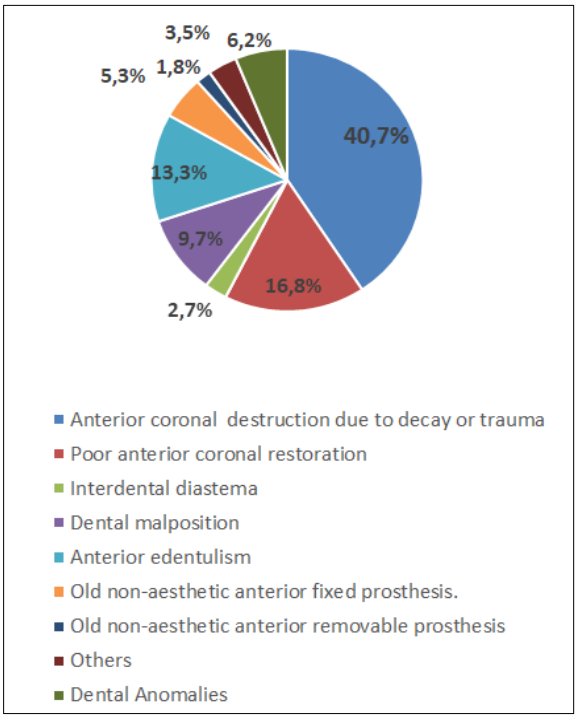

Figure 2: Different reasons for aesthetic consultation

Tooth loss and coronal destruction due to caries or trauma were the main reasons for decreased masticatory function in the study cohort with respective percentages of 32% and 27%. Other reasons impairing masticatory function had close proportions; poor coronal restoration (14.7%), old non-functional fixed prosthesis (10.3%), old non-functional removable prosthesis (8%), and occlusion problems (7.8%).

Regarding the reason for aesthetic consultation, anterior coronal destruction due to decay or trauma was the reason most cited (40.7%) by the participants. The other reasons were: poor anterior coronal restoration, interdental diastema, dental malposition, anterior edentulism, Dental anomalies and old non aesthetic anterior fixed or removable prosthesis.

When associating the different reasons for consultations reported with maxillary and mandibular tooth loss by Binary logistic regression, there was a strong negative correlation between tooth loss in both jaws and psychological discomfort (P = 0.007), 62% of

participants with maxillary tooth loss and 59% with mandibular tooth loss noted that psychological discomfort is not a reason to seek prosthetic care. A second negative correlation was found between tooth loss and Proximity to the healthcare center (P = 0.007), almost 90% of edentulous patients had not considered proximity to the center as a reason for consultation.

No statically significant relationship was detected with the other reasons for consultations **(Table 5).**

Table 5: Relationship between reasons for consultation and maxillary / mandibular tooth loss

Reason for Consultation	Tooth loss in upper arch				Tooth loss in lower arch				*P* value
	No tooth loss	Anterior tooth loss	Posterior tooth loss	Anterior and posterior tooth loss	No tooth loss	Anterior tooth loss	Posterior tooth loss	Anterior and posterior tooth loss	
Functional (reduced masticatory efficiency) Yes No	49 (24,9%) 07 (3,5%)	02 (1,1%) 00 (0 %)	110 (55,8%) 06 (3,1%)	20 (10,1%) 03 (1,5%)	55(27,9%) 09(4,6%)	04(2%) 00(0%)	113 (57,4%) 07 (3,5%)	09 (4,6%) 00 (0%)	0,119
Aesthetic Yes No	21(10,6%) 35 (17,8%)	01 (0,5%) 01 (0,5%)	41(20,8%) 75(38,1%)	17 (8,6%) 06 (3,1%)	22(11,2%) 42(21,3%)	02 (1%) 02 (1%)	52 (26,4%) 68 (34,5%)	04 (2,1%) 05 (2,5%)	0,235
Referral by a doctor or healthcare service of another specialization Yes No	21 (10,7%) 35 (17,7%)	00 (0%) 02 (1%)	43 (21,8%) 73 (37,1%)	11 (5,6%) 12 (6,1%)	25(12,7%) 39(19,8%)	03 (1,5%) 01 (0,5%)	41 (20,8%) 79 (40,1%)	06 (3,1%) 03 (1,5%)	0,856
Psychological discomfort Yes No	14 (7,1%) 42 (21,3%)	00 (0%) 02 (1%)	40 (20,3%) 76 (38,6%)	14 (7,1%) 09 (4,6%)	13 (6,6%) 51(25,9%)	03 (1,5%) 01 (0,5%)	48 (24,4%) 72 (36,5%)	04 (2,1%) 05 (2,5%)	**0,007**
Cost of healthcare Yes No	27(13,7%) 29(14,7%)	01 (0,5%) 01 (0,5%)	62 (31,5%) 54 (27,4%)	14 (7,1%) 09 (4,6%)	33(16,8%) 31(15,7%)	02 (1%) 02 (1%)	66 (33,5%) 54 (27,4%)	03 (1,5%) 06 (3,1%)	0,588
The reputation of the service and its health Professionals Yes No	41(20,8%) 15(7,6%)	02 (1%) 00 (0%)	88 (44,7%) 28 (14,2%)	15 (7,6%) 08 (4,1%)	46(23,4%) 18(9,1%)	04 (2%) 00 (0%)	92 (46,7%) 28 (14,2%)	04 (2,1%) 05 (2,5%)	0,968
Follow-up visit Yes No	01(0,5%) 55(27,9%)	00 (0%) 02 (1%)	07 (3,6%) 109 (55,3%)	02 (1%) 21 (10,7%)	04 (2,1%) 60(30,4%)	00 (0%) 04 (2,1%)	05 (2,5%) 115 (58,4%)	01 (0,5%) 08 (4%)	0,280
Proximity to the healthcare center Yes No	14 (7,1%) 42 (21,3%)	00 (0%) 02 (1%)	13 (6,6%) 103 (52,3%)	00 (0%) 23 (11,7%)	13 (6,6%) 51(25,9%)	00 (0%) 04 (2,1%)	14 (7,1%) 106 (53,8%)	00 (0%) 09 (4,5%)	**0,007**
Advice from a relative Yes No	27 (13,7%) 29 (14,8%)	01 (0,5%) 01 (0,5%)	71 (36%) 45 (22,8%)	09 (4,6%) 14 (7,1%)	33(16,8%) 31(15,7%)	01 (0,5%) 03 (1,5%)	72 (36,5%) 48 (24,4%)	02 (1%) 07 (3,6%)	0,847
Request for doctor's advice Yes No	18 (9,1%) 38 (19,3%)	01 (0,5%) 01 (0,5%)	35 (17,8%) 81 (41,1%)	10 (5,1%) 13 (6,6%)	21(10,7%) 43(21,8%)	02 (1%) 02 (1%)	36 (18,3%) 84 (42,6%)	05 (2,5%) 04 (2,1%)	0,930

Regarding the association between the reasons for consultation and the prosthetic status of both jaws, a statistically significant relationship was noted between the prosthetic status and psychological discomfort (P = 0.000). Most participants with removable prosthesis complained of psychological discomfort. However, most participants with fixed prosthesis did not have this problem.

Nearly 60% of participants with maxillary prosthesis (fixed or removable) and 95% with mandibular prosthesis (fixed or removable) noted that the reputation of the service and its health professionals is one of the reasons for seeking prosthetic care. The statistical analysis between this reason for consultation and the prosthetic status concluded with a statistically significant p value (P = 0.017).

A negative correlation was detected between prosthetic status and the "Follow-up visit" motive with a value of p=0.005. Almost 85% of participants wearing a prosthesis did not consider follow-up as a reason for consulting **(Table 6).**

Table 6: Relationship between reasons for consultation and maxillary / mandibular prosthetic status

Reason for Consultation	Prosthetic status in upper arch				Prosthetic status in lower arch				P Value
	No prosthesis present	Fixed dental prosthesis present	Removable partial prosthesis present	Combined prosthesis present	No prosthesis present	Fixed dental prosthesis present	Removable partial prosthesis present	Combined prosthesis present	
Functional (reduced masticatory efficiency) Yes No	108(54,8%) 14(7,1%)	42 (21,3%) 01 (0,5 %)	26 (13,2%) 01 (0,5%)	05(2,6%) 00 (0%)	141(71,6%) 16 (8,1%)	22(11,2%) 00(0%)	16 (8,1%) 00 (0%)	02 (1%) 00 (0%)	0,455
Aesthetic Yes No	51(25,9%) 71 (36%)	14 (7,1%) 29 (14,8%)	12(6,1%) 15(7,6%)	03 (1,5%) 02 (1%)	64(32,5%) 93(47,2%)	06 (3%) 16 (8,1%)	09 (4,6%) 07 (3,6%)	01 (0,5%) 01 (0,5%)	0,846
Referral by a doctor or healthcare service of another specialization Yes No	45 (22,9%) 77 (39,1%)	19 (9,6%) 24 (12,2%)	09 (4,6%) 18 (9,1%)	02 (1%) 03 (1,5%)	62(31,5%) 95(48,2%)	06 (3%) 16 (8,1%)	07 (3,6%) 09 (4,6%)	00 (0%) 02 (1%)	0,765
Psychological discomfort Yes No	34 (17,3%) 88 (44,7%)	15 (7,6%) 28 (14,2%)	17 (8,6%) 10 (5,1%)	02 (1%) 03 (1,5%)	44 (22,3%) 113(57,4%)	08 (4,1%) 14 (7,1%)	14 (7,1%) 02 (1%)	02 (1%) 00 (0%)	**0,000**
Cost of healthcare Yes No	71(36%) 51(25,9%)	16 (8,2%) 27 (13,7%)	14 (7,1%) 13 (6,6%)	03 (1,5%) 02 (1%)	85(43,1%) 72(36,5%)	08 (4,1%) 14 (7,1%)	10 (5,1%) 06 (3,1%)	01 (0,5%) 01 (0,5%)	0,536
The reputation of the service and its health Professionals Yes No	95(48,2%) 27(13,7%)	28 (14,2%) 15 (7,6%)	19 (9,6%) 08 (4,1%)	04 (2,1%) 01 (0,5%)	111(56,4%) 46(23,4%)	19 (9,6%) 03 (1,5%)	14 (7,1%) 02 (1%)	02 (1%) 00 (0%)	**0,017**
Follow-up visit Yes No	00(0%) 122(61,9%)	07 (3,6%) 36 (18,3%)	01 (0,5%) 26 (13,2%)	02 (1%) 03 (1,5%)	05 (2,5%) 152(77,2%)	04 (2,1%) 18 (9,1%)	00 (0%) 16 (8,1%)	01 (0,5%) 01 (0,5%)	**0,005**
Proximity to the healthcare center Yes No	14 (7,1%) 108(54,8%)	10 (5,1%) 33 (16,7%)	02 (1%) 25 (12,7%)	01 (0,5%) 04 (2,1%)	19 (9,6%) 138(70,1%)	05 (2,5%) 17 (8,7%)	03 (1,5%) 13 (6,6%)	00 (0%) 02 (1%)	0,687
Advice from a relative Yes No	72 (36,6%) 50 (25,4%)	18 (9,1%) 25 (12,7%)	16 (8,1%) 11 (5,6%)	02 (1%) 03 (1,5%)	83(42,1%) 74(37,6%)	14 (7,1%) 08 (4,1%)	10 (5,1%) 06 (3%)	01 (0,5%) 01 (0,5%)	0,237
Request for doctor's advice Yes No	35 (17,8%) 87 (44,2%)	19 (9,6%) 24 (12,2%)	08 (4,1%) 19 (9,6%)	02 (1%) 03 (1,5%)	49(24,9%) 108(54,8%)	09 (4,6%) 13 (6,6%)	05 (2,5%) 11 (5,6%)	01 (0,5%) 01 (0,5%)	0,676

DISCUSSION

Developing clinicians' professional competence has long been the primary goal of oral health research. It is arguably a key indicator of gaining patient trust and satisfaction in any clinical practice. However, in recent years, several authors have encouraged supplementing professional measures with patient-based data so that clinicians can develop an adequate treatment plan based on the analysis of clinical parameters and a thorough understanding of individuals' perceptions of their health status and needs. In study comparing normative (practitioner-assessed) and subjective (self-reported) prosthetic needs, (Chisini L A *et al*., 2022) reported low concordance (kappa: 0.43) between the two needs. In the same regard, and with the aim of reducing discrepancy between dentists' assessments and patients' expectations

during prosthodontic treatment, (Soo S Y *et al.*, 2024) developed and validated a novel instrument, called the questionnaire on perceived prosthodontic treatment needs (PPTN). Three factors were identified (psychosocial impact, aesthetic concern, and function) by using exploratory factor analysis.

Our study was interested in evaluating the different reasons pushing to consult Fixed Prosthetic Department of DCTC of Rabat whether functional, aesthetic, psychological or socio-economic. Which provides a broader vision of patients' concerns in the search for prosthetic care.

The study of the reasons for patient consultation in healthcare centres is meaningless without a prior study of the demographic, socio-economic and clinical characteristics of the participants.

Indeed, the majority of patients consulting the fixed prosthesis service in this survey were not older than 59 years. However, geriatric patients whose age is older than 60 years presented the minority (4.1%), which is consistent with the study conducted by (Amine M *et al*., 2016) who reported that relatively younger patients would request FDPs. Most authors explained this perceived disinterest of elderly patients in prosthetic care by mobility problems, lack of awareness, and the poverty of this age group who are retired (Aha A *et al*., 2013)

The majority of participants in our study are illiterate (83.8%), without occupation (65%) and without monthly income (74.1%), which is consistent with the study by Amine et al. This can be clearly explained by the social tariffs of the DCTC which attracts low-income populations. In addition, 99% of the participants are under the basic medical coverage that guarantees the right to health care to economically disadvantaged people. In fact, each patient is entitled to a new free prosthetic restoration every year. Some patients consult the service of fixed prosthesis just to benefit from this privilege regardless of their educational level and awareness regarding prosthetic care.

Therefore, it can be deduced through our study that Dental insurance systems have a positive impact on the motivation to seek treatment prosthetics (Ozdogan M S *et al*., 2019).

On the other hand, (Medy´nski D *et al*., 2022) reported that patients with higher and secondary education are more likely to consult prosthetic services due to their better knowledge of general health and prosthetic treatment options. In addition, most of the participants had a profession with a good economic status; indeed, the professional and economic situation of individuals has been considered as an essential factor that dictates the purchasing power in terms of health services.

Regarding gender, 73.1% of the participants in our study were women. This female predominance in seeking prosthetic care has been confirmed by several global publications: (Idress N *et al*., 2008), (Joseph A G *et al*., 2016) (Amine M *et al*., 2016), (Alfouzan A F *et al*., 2022), (Prakash J *et al*., 2022) and (Medy´nski D *et al*., 2022). Among the hypotheses explaining this female predominance is the ideas of masculinity that associate seeking prosthetic care with weakness (Mayberry R M *et al*., 2008). In addition, one of the reasons for the high proportion of women in seeking dental care is the female identity in Morocco which is deeply linked to the role of the mother who uses health services more often than men, including dental services for pre- and post-natal care. However, this does not negate the fact that other studies reported high numbers of male participants seeking prosthetic treatment (Murdoch A I K *et al*., 2023), (Sana A *et al*., 2022).

Given that tooth loss is a major event whose public demands towards it have become increasingly high. The situation of edentulism was assessed in our study. Only 2% of the participants presented maxillary anterior edentulism and 1% presented mandibular anterior edentulism. These results conflict with those of (Chisini L A *et al.*, 2022) and (Jayasinghe R M *et al*., 2017), who reported that the most important prosthetic need of patients is to replace anterior teeth while considering that tooth loss in aesthetic regions is crucial to individuals, being perceived as a loss of which restoration is essential (Moreira R S *et al*., 2009), (Schuurs, A.H *et al*., 1990), (Akeel R, 2003).

This minority of subjects with anterior edentulism in our study can be explained by the nature of these patients called interventionist who seek emergency care, however the administrative procedures within DCTC-Rabat take longer, which makes the treatment process significantly longer and less comfortable which can be a source of demotivation for this type of patient.

The majority of our subjects had posterior edentulism, whether maxillary or mandibular. According to the literature, posterior edentulism is often linked to masticatory difficulty (Krzemień J *et al*., 2013). This corroborates with our results which indicate that the improvement of masticatory function is the primary reason for consultation of the participants.

Unlike most studies that link masticatory difficulty to edentulism, which gave the impression to readers that tooth loss is the only reason for seeking prosthetic care, our study reported other reasons other than edentulism that were noted by participants as disruptors of mastication, namely; coronal destruction due to decay or trauma, poor coronal restoration, occlusion problems, old non-functional removable or fixed prosthesis. In addition, the association between the reduction in masticatory function and tooth loss was not significant (P= 0,119).

Regarding prosthetic status, most of our participants did not wear a prosthesis. The change of the old prosthesis presented only 8% of the functional reasons for the fixed prosthesis and 10.3% for the removable prosthesis. This can be explained by the young age of our participants; Medy´nski *et al*., ont rapporté que older people need to replace dentures more than younger people because of their wear and tear.

The reputation of the service and its health professionals was reported as the second most important reason for seeking prosthetic care, although the work is mainly performed by students. Participants had no problem with this point since these students are supervised by university teachers who are considered to be professionals of a higher level. Medy´nski *et al*., reported that better-educated people are less willing to undergo treatment by students. Our results can then be explained by the low educational level of our participants as well as by the free services for economically disadvantaged people who do not have another alternative especially with the excessively expensive services in the private sector.

In addition, we detected a statistically significant relationship -($p \leq 0.05$) between the reputation of the service and its health professionals and prosthetic status; Most patients wearing a prosthesis noted that the reputation of the service is among the reasons for consultation. This can be explained by the ideas acquired by patients about the quality of the practice by visiting other institutions or practitioners before.

Advice from a relative was the third most common reason for seeking fixed prosthesis service; Two studies conducted in Arab countries by (Alfouzan A F *et al*., 2022) in Saudi Arabia and (Al-Mandhari A *et al*., 2013) in Oman reported that friends and relatives were the main motivators for seeking care. However, in the study by Medy´nski *et al*., conducted in Poland, participants noted that persuasion from relatives was the least important reason for undertaking prosthetic treatment. The discrepancy between these results may be explained by the difference in social culture according to geographical distribution; in fact, Arab societies are known for their collectivist spirit in which family and relatives have a significant influence in seeking care.

Almost half of the participants (52.8%) mentioned that Cost of healthcare is a reason for seeking prosthetic treatment, which appears logical given the low financial status of the population studied.

Less than half of the participants 40.6% noted that they seek appearance through fixed prosthetic rehabilitation, which conflicts with the studies of (Leelavathi L *et al*., 2020) and (Karla J *et al*., 2024) who reported aesthetics as the main reason for teeth replacement among patients. Our results are most often due to the decreased number of patients with anterior edentulism, however the association between aesthetics and tooth loss was not significant p=0.235. Most of the participants seeking appearance had anterior coronal destruction due to caries or trauma; which proves that aesthetics is not always related to anterior edentulism.

38% of subjects were referred by a doctor or healthcare service of another specialization, 32.5% consulted after receiving advice from a doctor (inside or outside a health center); Culturally, Arab societies like Morocco naturally respects the opinion of the doctor and considers him as a symbol of wisdom (wise man or leader) (Adib S M, 2004). In a study carried out on the Omani population showed that the advice of the doctor is the most commonly reported reason for using healthcare resources which proves the cultural power in the medical orientation of individuals.

Psychological discomfort was one of the reasons noted by our participants with a percentage of 34.5%. Several studies in the literature have investigated the correlation between quality of life including psychological comfort and prosthetic demand; (Renuka S *et al*., 2020) stated that the desire for treatment regarding dentures is associated with the extension of the edentulous space and affects the patient's confidence. Similar results were observed in the study of Kalra *et al*., where the majority of patients reported a lack of confidence due to tooth loss, which conflicts with our results where a negative correlation (p=0.007) was detected between tooth loss and psychological discomfort. A statistically significant association (P=0.000) was also found between psychological discomfort and prosthetic status; Most patients with removable dentures reported psychological discomfort, unlike those with fixed restorations. This is consistent with the findings of the study by Idrees *et al*., in which patients who had used removable partial dentures described physical discomfort, practical problems, and feelings of insecurity and uncertainty. However, all of these patients felt that having a fixed denture would make them psychologically safer because they could eat, drink, and speak more easily.

The least reported reasons for consultation in our study were Proximity to the healthcare center (13.7%) and Follow-up visit (5.1%). The negative correlation detected between Proximity to the healthcare center and tooth loss means that edentulous individuals are no longer sensitive to distance when seeking prosthetic care. (Hu W *et al*., 2024) detected significant associations that appear interesting between proximity to the healthcare center, ages, incomes, and education levels. The results reported that young people, low-income and poorly educated individuals are the most sensitive to distance.

The negative correlation detected between Follow-up visit and prosthetic status shows that regular visits to the dentist are not a motivating factor for

consultation, this is most often due to the lack of patient education in the control of prosthetic restorations. Conflicting results were reported by Medy'nski *et al*., in which 90% of participants were aware of follow-up visits to maintain optimal oral health.

The study had some limitations, including the limited sample size and its restriction to a single health facility, which hinders the generalization of the results to the whole of Morocco. The significant comparison with studies conducted in other regions of the world.

On the other hand, it is necessary to emphasize that our study is the first to evaluate in Morocco the reasons for consultations in fixed prosthesis while considering it as a demographic, social, cultural, economic and clinical entity.

CONCLUSION

This work has comprehensively described the motivating factors for fixed prosthetic treatment. Our results are interesting and could be taken into account in the planning of prosthetic services.

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