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RESEARCH ARTICLE

COMPARATIVE CROSS-SECTIONAL STUDY OF DERMATOLOGICAL MEDICAL PRESCRIPTIONS IN MOROCCO BETWEEN THE PUBLIC AND PRIVATE SECTORS

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Abstract

Introduction : The aim of our study is to evaluate, through objective results, the particularities and potential differences in dermatological medical prescriptions between the public and private sectors.

Materials and Methods : A prospective, observational, descriptive, and analytical study was conducted in our department over a 6-month period. Prescriptions were collected via patients, peers, pharmacists, and medical representatives. A database was generated containing data on sex, sector, number of treatments, number of cosmetic treatments, number of medical treatments, and prescription costs. Statistical analysis was performed using SPSS software, version 20.0.

Results : Two hundred prescriptions were validated and analyzed, involving 147 female and 53 male patients, with 103 originating from the private sector and 93 from the public sector. The number of prescribed medications ranged from 1 to 11, with a median of 3 [3–5]; the number of cosmetic treatments ranged from 0 to 9, with a median of 2 [1–4]; and the number of medical treatments ranged from 0 to 5, with a median of 1 [0–2]. Regarding costs, 31% of prescriptions cost less than 500 dirhams, 29.5% cost between 500 and 1,000 dirhams, 26% cost between 1,000 and 1,500 dirhams, and 13% exceeded 1,500 dirhams.

Discussion : Our study demonstrates a female predominance, a high total number of medications per prescription, a high number of cosmetic treatments, a low number of medical treatments, and high prescription costs in the private sector. These differences are statistically highly significant, with p values of less than 0.001.

Conclusion : Despite the limited sample size and short duration, our study reveals an increase in medical prescriptions especially cosmetic ones in the private sector, which could be partially explained by patient affluence and expectations.

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Introduction:-

Medical prescriptions in general, and dermatological prescriptions in particular, appear quantitatively greater (in terms of the number of items prescribed) and qualitatively higher (in terms of prescription cost) in the private sector compared to the public sector. This is driven by the nature of the practice, socioeconomic conditions, patient

expectations, and the medico-economic considerations of healthcare professionals in both sectors [1, 2, 3]. However, currently, with the boom in interventional and aesthetic dermato-cosmetology where professionals tend to favor procedures and techniques (peels, lasers, platelet-rich plasma [PRP], radiofrequency, etc.) what is the current status of medical prescriptions [4]? Given the scarcity of objective studies in our country, and with the objective of identifying and highlighting potential differences in dermatological medical prescriptions between the two sectors, conducting this study appears fully justified and enriching at all levels.

Materials and Methods:-

This was a prospective, observational, descriptive, and analytical study conducted over a 6-month period within the dermatology department of the Mohammed V Military Teaching Hospital in Rabat.

Prescriptions were gathered from consulting patients, pharmacists, and medical representatives. Prescriptions received from certain dermatology colleagues who were aware of the study's objective were excluded to eliminate any potential bias.

A database was generated using SPSS software (version 20.0), incorporating sex, sector, number of medications per prescription, number of cosmetic treatments, number of medical treatments, and prescription cost.

Medical treatments were defined as antibiotics, topical corticosteroids, antimycotics, retinoids, etc., while cosmetic treatments included sunscreens, emollients, depigmenting agents, anti-aging skincare, and others.

To compare outcomes between the two sectors, statistical analysis was performed using the chi-square test for qualitative variables and the non-parametric Mann-Whitney test for asymmetric quantitative variables.

Results:-

A total of 200 prescriptions were validated and analyzed, involving 147 females (73.5%) and 53 males (26.5%). Ninety-seven prescriptions (48.5%) originated from the public sector and 103 (51.5%) from the private sector. The number of medications prescribed per prescription ranged from 1 to 11, with a median of 3 [3–5]. The number of cosmetic treatments ranged from 0 to 9, with a median of 2 [1–4]. The number of medical treatments ranged from 0 to 5, with a median of 1 [0–2]. Sixty-two prescriptions (31%) cost less than 500 dirhams, 59 (29.5%) cost between 500 and 1,000 dirhams, 52 (26%) cost between 1,000 and 1,500 dirhams, and 27 (13.5%) cost more than 1,500 dirhams.

Table 1: Descriptive characteristics of the studied population

Variables	Values (N=200)
Sex (a):	
Females	147 (73.5)
Males	53 (26.5)
Sector (a):	
Public	97 (48.5)
Private	103 (51.5)
Number of medications (b)	3 [3–5]
Cosmetic treatments (b)	2 [1–4]
Medical treatments (b)	1 [0–2]

Prescription cost (a):	
1	62 (31)
2	59 (29.5)
3	52 (26)
4	27 (13.5)

(a) Expressed as counts and percentages.

(b) Expressed as medians and interquartile ranges.

1: less than 500 dirhams, 2: between 500 and 1,000 dirhams, 3: between 1,000 and 1,500 dirhams, 4: greater than 1,500 dirhams.

In terms of distribution, 63.3% of female patients were managed in the private sector, whereas 81.1% of male patients were managed in the public sector. The median number of prescribed medications was 3 [2–4] in the public sector versus 5 [3–6] in the private sector. The median number of cosmetic treatments was 1 [0–2] in the public sector compared to 3 [3–5] in the private sector. The median number of medical treatments was 2 [1–2] in the public sector versus 1 [0–1] in the private sector. The percentages of patients facing prescription costs of less than 500 dirhams, between 500 and 1,000 dirhams, between 1,000 and 1,500 dirhams, and greater than 1,500 dirhams were respectively 57.7%, 33%, 9.3%, and 0% in the public sector, compared to 5.8%, 26.2%, 41.7%, and 26.2% in the private sector.

Table 2: Comparison of sex, number of medications, cosmetic and medical treatments, and prescription costs by sector

Variables	SectorPublic	Private	p value
Sex:			
Females	54 (36.7)	93 (63.3)	0.001 (a)
Males	43 (81.1)	10 (18.9)	
Number of medications	3 [2–4]	5 [3–6]	0.001 (b)
Cosmetic treatments	1 [0–2]	3 [3–5]	0.001 (b)
Medical treatments	2 [1–2]	1 [0–1]	0.001 (b)
Prescription cost:			
1	56 (57.7)	06 (5.8)	0.001 (a)
2	32 (33)	27 (26.2)	
3	09 (9.3)	43 (41.7)	
4	00 (0)	27 (26.2)	

(a) Chi-square test

(b) Mann-Whitney test

Discussion:-

Dermatological and dermato-cosmetic consultations are flourishing, driven by rising population affluence and increased availability of care offers [5, 6].

Against a backdrop of scarce similar studies, our findings demonstrate:-

- **Female Predominance in the Private Sector:** A statistically significant difference ($p < 0.001$) shows a high concentration of female patients in private practice. While female predominance in dermatological consultations is well established typically around a ratio of two women to one man [7, 8] this proportion rises to approximately four women to one man in this cohort. Furthermore, prescription costs for female patients are higher than those for males.
- **Prescription Volume and Costs:** There is a significantly higher number of prescribed medications per prescription in the private sector compared to the public sector, closely associated with an increased volume of cosmetic treatments. Conversely, the number of pure medical treatments is significantly higher in the public sector. All of these observed differences are statistically significant ($p < 0.001$). Similarly, overall prescription costs are markedly elevated in the private sector ($p < 0.001$).

These differences can be explained by the shift and orientation of dermatology toward cosmetology and aesthetic medicine, patient affluence, client demands and expectations, the overhead costs of private clinics, and the marketing allure and incentives of cosmetic laboratories.

Limitations of the study:-

The limitations of our work include the restricted number of prescriptions, the short duration of the study, the lack of a pathology-by-pathology comparative breakdown, the omission of patients' precise socioeconomic status, and potential selection bias regarding the representativeness of prescriptions originating predominantly from major cities within the kingdom.

Conclusion:-

Despite certain limitations, our study clearly highlights a widening prescription gap between the two sectors. The private sector increasingly leans toward dermato-cosmetology which is more lucrative, cleaner, more comfortable, and more luxurious gradually moving away from classic dermatology, which is perceived as messier, more demanding, rigorous, and less profitable.

Conflicts of Interest:-

The authors declare no conflicts of interest regarding this work.

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