

## Quality of working life of dental office staff: Surveys of work of dental assistants in Senegal

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### Abstract

The working conditions are a set of parameters that influence the satisfaction found daily at this activity. Dental assistants play an invaluable part in the dental team by improving the dentist's efficiency in delivering oral health care and by increasingly influencing the productivity of the dental office through interpersonal relationships and competence these techniques. The purpose of this study was to evaluate the working conditions and to determine the degree of satisfaction.

**Material and Methods:** This descriptive and cross-sectional study was conducted with dental assistants listed in the registries of the Association of Dental Assistants of Senegal. This is a self-administered survey with a three-part form.

The study lasted two months and the 140 participants were informed of the nature and purpose of the survey and their participation was anonymous and voluntary.

A total of 113 responded to the questionnaire, data was collected and analyzed with SPSS 18 for Windows (SPSS Inc., Chicago, Illinois, USA).

The comparison of the data was made with the chi-square tests X<sup>2</sup> and Pearson and a significance threshold  $p \leq 0.05$  was retained.

**Results:** The results of this study conducted with Senegalese dental assistants show very precarious working conditions resulting in low salary levels; 53.1% earn less than 200 euros for 40 hours of work per week and 46% work without a contract. Despite a very stressful work environment, a statistically significant difference could not be established between salary and job satisfaction.

**Conclusion:** The results of this study show a precarious profession with very low pay levels and almost non-existent work contracts.

**Keywords:** Working conditions, Remuneration, Stress, Dental assistant, Dentistry.

### Introduction

Working conditions are a set of parameters that affect the daily satisfaction of an activity.<sup>1,2</sup> Those of health personnel are generally dependent on the intensity of physical effort and the environment in which they work.

In the dental field, the care team is made up of dental surgeons, hygienists and dental assistants.

Dental assistants play an invaluable part in the dental team by improving the dentist's efficiency in delivering oral health care and by increasingly influencing the productivity of the dental office through interpersonal and interpersonal relationships technical skills.<sup>3</sup> In Senegal and other African countries, dental assistants work most often full-time and play many roles in dental practices: receptionist, radiology technician or dental educator.

In the United States and Europe, assistants can have expanded functions that allow them to do many additional tasks related to care.

However, although the medical literature on the working conditions of health workers is vast, there is almost no research in this area concerning workers in the oral health sector in Senegal, especially dental assistants.

The purpose of this study was to evaluate the working conditions, the characteristics of the job and to determine the degree of satisfaction.

### Material and Methods

This descriptive and cross-sectional study was carried out among the dental assistants listed in the registries of the association of dental assistants of Senegal. This is a self-administered survey that includes three sections:

The first concerns socio-demographic data age sex level of schooling, marital status, level of education.

The second part deals with the working environment and the rates of remuneration and finally a third part about the level of satisfaction and relationships in the dental team.

The study lasted two months and the 140 participants were informed of the nature and purpose of the survey and their participation was anonymous and voluntary.

A total of 113 responded to the questionnaire, the data were collected and analyzed with SPSS software. The qualitative variables are expressed on average and the quantitative variables in percentage.

The comparison of the data was made with the chi-square tests X<sup>2</sup> and Pearson and a significance threshold  $p \leq 0.05$  was retained.

### Results

A total of 113 out of 140 responded to the questionnaire, which corresponds to a participation rate of 89%. Our sample is largely dominated by women who represent 69% against 31% for men. 45% of participants were married, of which 43.4% had more than one year of

experience (Table 1). The level of education was quite high because more than half had validated their high school diploma, 38.4% +/- 4.5 had obtained the baccalaureate (Table 2).

The salary threshold seems too low, 53.1% earn between 50000 (75 €) and 100000 CFA (176 €) per month is less than 200 € and only 5.3% have a salary higher than 176€.

Almost half of the participants work without a contract, 15% work under permanent contracts (CDI) and only 13.3% contribute for the retirement pension.

The contract of employment seems strongly linked to the remuneration because those who have obtained a Cdi or Cdd contract have wages higher than 150 € (p≤ 0.009)

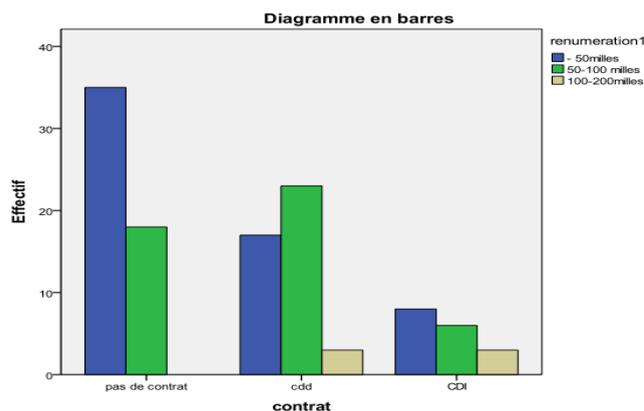
But the working time has no added value on the remuneration indeed those who are without a contract work more than 40 hours a week, whereas those who work in IDC work most often between 16 and 25 hours and have the highest pay (Fig. 1).

**Table 1: Demographic Parameters**

Socio-demographic variables	N	%
<b>Gender</b>		
Male	35	31
Female	78	69
<b>Marital status</b>		
Maries	63	55.8
Singles	50	44.2
<b>Study level</b>		
High school	46	40.7
Bachelor	44	38.9
Secondary school	14	12.4
No study	9	8
<b>number of years of experience</b>		
≤ 1 year	15	13.3
1-5 years	49	43.4
5-10 years	28	24.8
≥10ans	11	18.6

**Table 2: Compensation by type of contract**

Contracts	Remuneration			Total	P-value
	76 € n(%)	76-150 € n (%)	150-300 € n (%)		
No contracts	35 (66)	18 (34)	-	53%	0,009
Contract duration déterminer	17(39,5)	23 (53,5)	3 (7,0)	43%	
Contract indefinite duration	8 (47,1)	6(35,3)	3(17,6)	17%	
Total	60(53,1)	47(41,6)	6(5,3)	113	



**Fig. 1: Remuneration according to the type of contract**

## Discussion

On the basis of data obtained from the association, the results of this study seem to be quite representative of dental assistants in Senegal. A profession largely dominated by women, as confirmed by recent studies.<sup>3</sup>

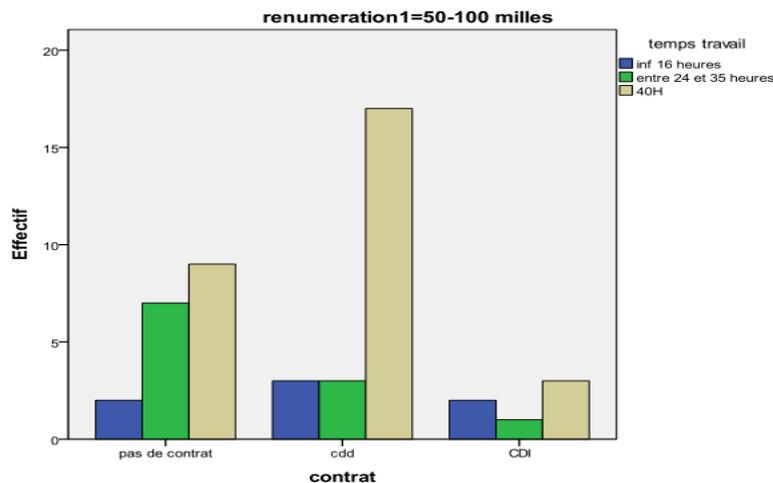
Now a days, to be a qualified dental assistant everywhere else in the world, it is necessary to justify training. In Senegal, dental assistants cannot work directly in the patient's mouth. Stains such as taking X-rays, removing sutures, topical applications of anesthetics, and sealing furrows or cavities with prevention materials and prescribing prescriptions are not normally allowed.

In Brazil, according to the study by Nelson Rubens et al<sup>4</sup> the same situation prevails for dental assistants, however dental hygienists are authorized to perform these proscribed activities for assistants. In this study most assistants perform additional tasks that are not allowed. Thus 30.4% of them participate in the drafting of the ordinances. Now in medicine the prescription constitutes the writing which contains the prescription of the doctor intended for a patient. This prescription subject to strict regulations seems overused and held with lightness.

In France the public health code is formal in stating that the dental assistant cannot in any way substitute the person of the dental surgeon for the prerogatives attached to the diploma of dentist. This study shows a satisfactory level of education because more than half of the participants have obtained the secondary school diploma and 38.9% are in possession of the baccalaureate.

Unlike Brazil or primary education is a requirement for all dental assistants and dental hygienists must demonstrate a secondary curriculum, this study shows that 8% of assistant were not attending school.<sup>3</sup> This high level of education is a sign of progress and social success because it is known that a low level of education has effects on wages and that a high level predisposes the individual to develop an intelligent practice, to articulate and mobilize knowledge and skills. However in this study, the measure 'association between salary level and schooling does not show a significant difference.

The salary seems to be more related to the type of contract because the high pay is observed for those who benefit from indefinite contract (cdi) and determined (cdd). Working time does not affect pay as even those who work more than 40 hours have low wages (Fig. 2).



**Fig. 2: Working time according to type of contract**

These results are different from those of the study by Khader and Abu Sharbain<sup>5</sup> who show in their study of dental assistants in Jordani, higher salary levels than those of this sample because 26.8% earn 200 JD / 240 € and 45.5% work at least 8 hours a day. In the USA between 2009 and 2013 assistants work on average 34 hours a week for an annual fee of 36,260 dollars to 17.34 dollars per hour<sup>6</sup>. In Brazil, Nelson Rubens et al<sup>4</sup> report in their study salary levels higher than those of our study sample with an average salary of 160 € but lower than the average salary perceived by a French dental assistant who is 1.500 €. In the US the average salary varies according to the states; it is 960 in the state of Puerto Rico while in Oregon it is 2056 US

dollar according to the Bureau of Labor Statistics.<sup>7,8</sup> Satisfaction at work is an attitude that an employee develops at his workplace and this is translated by a jovial spirit, an overflowing enthusiasm and a certain rigor to the task. The factors contributing to this state are multiple and change over time. Indeed, when people feel that their wages are not fair or that working conditions are bad or that the benefits are insufficient, they feel dissatisfied with their work. In this study, 53.2% of participants felt their work was stressful, 23.4% had once lost their job and only 13.5% had a pension contribution. A significant difference could not be established between this stressful environment and low salary levels. Far from these precarious conditions

do not seem to alter the dentist-assistant relationship, because most of the assistants claim to have good rapport with the health care team, particularly with the dentist, and that the dentist shows respect and kindness to the dentist in their respect. However this contrast does not mean that these assistants feel satisfied or dissatisfied with their work.

Locker et al<sup>9</sup> shows that the main sources of dissatisfaction for dental assistants were low income, lack of professional development opportunity and lack of recognition. In their study, nearly one in five respondents scored on a standard measure of emotional distress, indicating that there is cause for concern.

Work stress has proven to be a significant predictor of job satisfaction. Similarly, stress and job satisfaction have emerged as important signals of emotional well-being. On the other hand, the ambiguity of the role of assistant, the underutilization of skills and low self-esteem have emerged as major problems.<sup>9-11</sup>

These observations from the work of Locker et al<sup>9</sup> are theoretically interesting in this respect. They have implications for the organization of dental practice in order to limit the burn-out phenomena reported in several studies of health workers. The study of Le Gall jr et al<sup>12</sup> performed in an intensive care unit in Paris shows that the phenomenon of burnout burn out would be present in half of the intensive care physicians and that this syndrome would be linked to a large number of hours of work.

### Conclusion

The results of this study show a precarious profession with very low wages and unsatisfactory working conditions. This study may be of interest to dentists, care staff and legislators who are concerned with how salary levels may affect the working conditions of dental assistants but also and above all their quality of life.

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**Conflict of interest:** None declared.

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