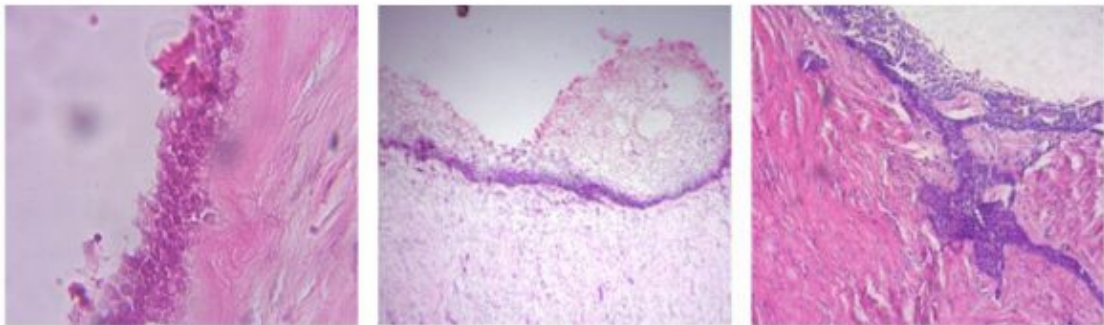


VOLUME 2, ISSUE 2, JUNE, 2017

NJDR

NIGERIAN JOURNAL OF DENTAL RESEARCH

Official Publication of the School of Dentistry, College of Medical Sciences, University of Benin, Benin City, Nigeria



Relating formal, informal religious activities with complete denture satisfaction

*Bolanle Oyeyemi AKINBOBOYE (BDS, FWACS), **Alex MERSEL (BDS (Adel), DDPH, MDS), *Patricia Adetokunbo AKEREDOLU (BChd, FMCDS, FWACS)

*Restorative Dentistry Department, Faculty of Dental Sciences, College of Medicine, University of Lagos, **Department of Community Dental Medicine, Hadassah Faculty Dental Medicine, Jerusalem. \$World Dental Federation, Director for the Europe Continuing Education Program

ABSTRACT

Objective: Psychological factors determine satisfaction with complete dentures. Psychological well-being, which determines self-perception of health, is also influenced by level of involvement in formal religious activity. The objective of this study was to determine the influence of patients' involvement in religious activity on their satisfaction with complete dentures.

Methods: This study was conducted in the Outpatient Clinic of the Prosthetic unit of the Lagos University Teaching Hospital, Lagos, Nigeria. New complete dentures were made for patient and they were recalled over a 2-year period. A structured 2-sectioned questionnaire was administered. Information sought in the first section prior to fabrication of denture was socio-demographics, socioeconomic status, religion, formal religious activities and motivation for treatment. The second section of the questionnaire on satisfaction was administered at the recall visit. Data was analyzed using SPSS (version 21.0).

Results: A total of 44 patients were seen, 39 patients came for recall visit. Mean age was 66.31±17.42 years. Male participants were 61.5%. Majority (52.94%) of the patient were on soft diet. Aesthetic (64.7%) and mastication (64.7%) were the main motivation factors seeking teeth replacement. Majority (55.6%) of the participants who rated self has "not religious" were satisfied with dentures (p=0.39). Participants with low level of involvement in religious activities had higher level of satisfaction with dentures (p=0.41).

Conclusion: Patients' level of religious activity had no influence on their complete denture satisfaction.

Keywords: Complete denture, religious activity, and satisfaction.

Citation: Akinboboye BO, Mersel A, Akeredolu PA. Relating formal, informal religious activities with complete denture satisfaction. *Nig J Dent Res* 2017; 2(1):37-42.

Correspondence

Dr. B.O. Akinboboye
Restorative Dentistry Department
Faculty of Dental Sciences, College of
Medicine
University of Lagos
Email: bolanleyemakins@yahoo.com

INTRODUCTION

A large population of complete denture wearers exists and it has been suggested that this population will continue to increase over the next 20 years.¹ This indicate a need to focus on the management of edentulous patient.

The management of edentulous patient is usually a difficult task because of the various perceptions of the patient needs.² A poor quality denture may be well tolerated by one person, while a good quality denture may result in failure in another person.³ There is also the problem of continuous resorption of ridges that necessitates repeated replacements and refitting of the dentures and periodic occlusal reshaping.² This problem has

not been solved with the suggested special impression procedures and materials.⁴ The patients' expectation that their new dentures will bring an improvement compared to their previous dentures is not often actualized.⁵ Recently, placement of implants over dentures has been proposed as a treatment option in edentulous patients but all patient cannot benefit from this due to low socioeconomic and health background.^{6,7}

In epidemiological studies on patients' satisfaction with their dentures of varying ages and qualities, the proportion of unsatisfied patients has been reported to range between 20% and 45%.^{8,9} Factors affecting satisfaction of complete dentures have been investigated by various researchers with different results.^{2,8,11}

Literature search revealed psychological factors also having a significant influence on the satisfaction of complete denture.¹²⁻¹⁵

It has been stated that individuals who report more frequent formal religious participation will report higher levels of psychological well-being.¹⁶ Psychological well-being has been reported to determine self-perception of health.¹⁷ It is

therefore necessary to determine whether frequent formal religious participation have any influence on satisfaction of complete dentures.

MATERIALS AND METHODS

This study was conducted in the Outpatient Clinic of the Prosthetic unit of the Lagos University Teaching Hospital. Ethical approval was obtained from the Ethical Board of Lagos University Teaching Hospital. Participants were selected randomly from the edentulous patients attending the Outpatient Clinics. Informed consent, both written and verbal, was obtained from the selected patients before starting of the study. Non-consenting selected patients did not participate in the study. A total of 44 patients participated in the study but only 39 conformed to the protocol of the study. The study period was 2 years (from 2014 to 2016).

Participants were administered a revised version of a questionnaire previously used in another study.¹⁸ The questionnaire had two sections. The first section sought information like socio-demographics, socioeconomic status, religion, formal religious activities (number of times prayer is done daily, number of times participants attended place of worship in a week, role participants play in place of worship and past visit to holy place) and patients' motivation for treatment. Level of involvement in religious activity was determined both objectively and subjectively. Subjective was based on participants' self-report. Objective was determined by grading their responses to questions. The questions on formal religious activities were used to classify patients into two groups (high involvement and low involvement of religious activities). The positive response to each question on religious activities was scored as one. The summation of all questions was made and a score ≥ 5 was classified as high involvement and score < 5 was rated low involvement. The first section of questionnaire was administered prior to treatment participants were examined and dentures were fabricated. The second section of the questionnaire on satisfaction was administered at the recall visit. Three calibrated investigator assessed fabricated complete denture before fitting. Satisfaction of denture was self-reported through the structured questionnaire. The quality of dentures was assessed based on quality of fit, aesthetic, extension, vertical relation, and occlusion using a rating scale of 1-5.¹⁹ The rating were as follows:- Quality of fit = 1, extension = 1, vertical relation = 1, aesthetics = 1, and occlusion = 1. The total sum is 5 and was assessed as follows: - 1 was rated poor quality, 2 was rated fair quality, 3 was rated good

qualities, 4 was rated very good quality and 5 was rated excellent quality.¹⁹

RESULTS

A total of 44 patients were examined but only 39 patients came for recall visit. Mean age was 66.31+/-17.42 years. Male participants were 61.5%. Female were 38.5 % (Table 1). Table 2 showed that "not religious" participant were the most satisfied (p=0.389). Those with low involvement of religious activities were the most satisfied (p=0.41). Those who took soft diet were most satisfied (p =0.65). Those using both upper and lower complete denture were most satisfied (p=0.36) and participants with no oral related habit were more satisfied with their dentures (p=0.18) (Table 2). Figure 1 shows that the "not religious" groups were the most satisfied (55.6%). Most participants could use denture to eat only soft diet (52.9%) (Figure 2) Periodontitis was the major cause of tooth loss (Figure 3).

Table 1: Sociodemographic characteristics of participants

| Variables n=39 | Frequency(%) |
|--------------------------|--------------|
| Age (years) | |
| ≤ 45 | 6(15.4) |
| 45-60 | 5(12.8) |
| 61-75 | 18(46.2) |
| >75 | 10(25.6) |
| Gender | |
| Male | 24(61.5) |
| Female | 13(38.5) |
| Educational level | |
| Non formal | 10(25.6) |
| Primary | 2(5.1) |
| Secondary | 9(23.1) |
| Tertiary | 18(46.2) |
| Occupation | |
| Retired/ Not active | 6(15.4) |
| Active | 33(84.6) |
| Religion | |
| Christianity | 24(61.5) |
| Islam | 13(35.3) |
| Traditional | 2(5.1) |
| Ethnic group | |
| Yoruba | 36(92.3) |
| Igbo | 3(7.7) |
| Marital status | |
| Single | 1(2.6) |
| Married | 31(79.5) |
| Divorced | 2(5.1) |
| Windowed | 5(12.8) |

In Table 2, the highest (64.7%) proportion of the population studied used only I set of complete dentures. Aesthetic (64.7%) and mastication (64.7%) were the main motivating factors for seeking treatment. More than half (55.9%) of the populations were self-motivated. The majority of participants had used only one denture (Table 3).

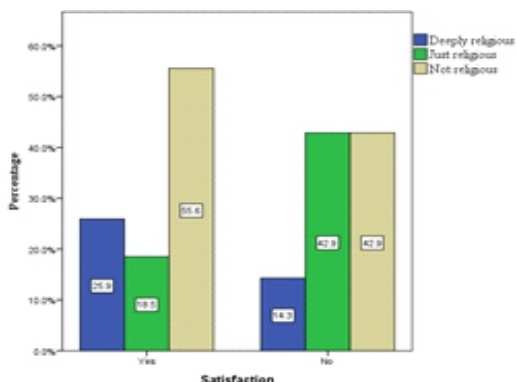


Figure 1: Relationship between participants' level of satisfaction and their level of religious involvement

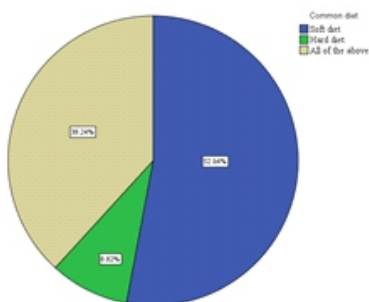


Figure 2: Type of diet taken among the participants

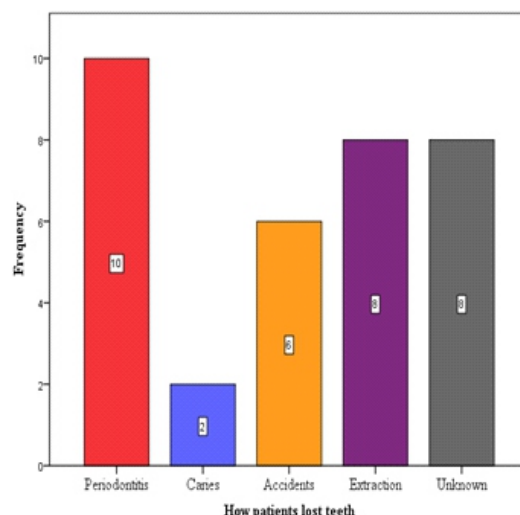


Figure 3: Factors causing tooth loss among the participants

Main reason for seeking dentures was appearance (64.7%). The motivation for seeking treatment was mainly relatives (20.6%). In table 4 a higher (55.9%) proportion of participants rated the upper denture staying in position as “well”, more than the proportion (44.1%) of those who rated lower denture as “well”. Rating of chewing for upper denture (41.2%) as “well” was the same as for lower denture (41.2%). The proportion of those who liked the appearance of the denture was 58.8%. The proportions of those comfortable with their dentures were 52.9%. The level of satisfaction was rated by 55.9% of upper denture wearers as “well satisfied”. Table 5 shows 22.2% of lower denture wearers rating the comfortability as uncomfortable.

Table 2: Religious activities, diet, oral related habit, complete denture and satisfaction

| Variables | Satisfaction | | P-value |
|--|----------------|--------------------|---------|
| | Satisfied n(%) | Not satisfied n(%) | |
| Self-perceived being religious | | | 0.389 |
| Deeply religious | 7(25.9) | 1(14.3) | |
| Just religious | 5(18.5) | 3(42.9) | |
| Not religious | 15(55.6) | 3(42.9) | |
| Level of involvement in Religious activities | | | 0.41 |
| High involvement | 7(25.9) | 6(50) | |
| Low involvement | 20(74.1) | 6(50) | |
| Type of diet | | | 0.65 |
| Soft diet | 14(51.9) | 4(57.1) | |
| Hard diet | 3(11.1) | 0(0) | |
| All of the above | 10(37.0) | 3(42.9) | |
| Type of complete denture | | | 0.36 |
| Both | 21(67.7) | 4(50.0) | |
| Upper | 8(25.8) | 4(50.0) | |
| Lower | 2(6.5) | 0(0) | |
| Oral related habit | | | 0.18 |
| Yes | 5(62.5) | 3(37.5) | |
| No | 22(84.6) | 4(15.4) | |

Table 3: Experience with denture usage amongst denture wearers

| | | Frequency (%) |
|--|-------------|---------------|
| Number of denture used by patients | 1 | 22(64.7) |
| | 2 | 9(26.5) |
| | ≥3 | 3(8.7) |
| Reason for seeking denture treatment (Multiple response) | Appearance | 22(64.7) |
| | Speech | 2(5.9) |
| | Mastication | 22 (64.7) |
| Source of motivation for seeking treatment | Relatives | 7(20.6) |
| | Doctors | 43(11.8) |
| | Self | 19(55.9) |
| | Friends | 1(2.9) |
| | Nothing | 3(8.8) |

Table 4: Level of satisfaction with denture

| | Very well | Well | Poorly | Very poorly |
|--|-----------|----------|---------|-------------|
| How well is your upper denture made in teaching hospital staying in position | 9(26.5) | 19(55.9) | 2(14.7) | 0(0.0) |
| How well is your Lower denture made in teaching hospital staying in position | 7(20.6) | 15(44.1) | 5(14.7) | 0(0.0) |
| How well can you chew with upper denture | 9(26.5) | 14(41.2) | 8(23.5) | 1(2.9) |
| How well can you chew with lower denture | 8(23.5) | 14(41.2) | 6(17.6) | 1(2.6) |
| How well do you like the appearance of the denture | 12(35.3) | 20(58.8) | 2(5.9) | 0(0.0) |

Table 5: Rating of comfortability with dentures

| | Very comfortable | Comfortable | Uncomfortable |
|---|------------------|-------------|---------------|
| How comfortable the upper denture made in hospital is | 9(26.4) | 18(52.9) | 5(14.7) |
| How comfortable the Lower denture made in hospital is | 7(20.6) | 14(41.1) | 6(22.2) |

DISCUSSION

There are various factors that affect complete denture satisfaction some of these factors are patient personality, and psychological factors which is influenced by level of involvement in religious activities. More persons with lower level of involvement with religious activities were satisfied with their dentures. Religion is said to be doctrines, practices, and routines connected to the supreme; where the supreme is God. There are specific doctrines about life after death and guidelines to the comportment within social group.²⁰

The finding in this study conforms to studies which found little or no significant association between psychological factors and satisfaction of dentures.^{21,22} It did not conform to a previous study that states that religion and involvement in religious activities help dental patient to cope with dental adverse condition.²³ It also did not conform to other studies^{24,25} which states that only psychological factor have a significantly influence denture satisfaction and profiles. It has

been stated that measures of religious involvement and related health outcome are more present in public religious involvement (i.e. religious attendance) than private religious involvement (e.g., self- rated religiousness, frequency of private prayer). The finding in this study revealed that majority had low involvement with religious activity which can be attributed to the fact that healthy people (dentate person) are more likely to be more involved in public religious activities.²⁶ It therefore suggest that other factors are contributing to the general satisfaction of complete dentures²⁷ or other psychological tools could be used to relate religion and satisfaction of complete denture. Controversial results exist among researchers investigating satisfaction of complete denture and personality. There is still lack of enough evidence between satisfaction of complete dentures, personality profiles, psychology and impacts on daily living. Further investigation are still required to investigate the psychological traits and it's impact on complete denture prosthesis with daily living, religion and

satisfaction of complete dentures.²⁸ The present use of upper complete denture was higher than lower complete denture. This was similar to a study done in Brazil.²⁹ The type of complete denture did not determine the satisfaction of dentures this conformed to a previous study.²⁹ The present study indicates that less than half of the population could chew with either the upper or lower denture this was a contrast to the Brazil study²⁹ which recorded a higher percentage of chewing ability. The reason for the pattern in this present study is as a result of the local diet that comprises mainly of hard fiber. The use of complete denture that is not fixed to denture bearing area will not afford efficient mastication of this local diet.³⁰ The absence of chewing efficiency for hard fiber can explain why the present study recorded high proportion of participants eating soft fibers. In this study, the upper denture stayed in position more than the lower denture. This is expected since upper denture bearing area is larger than the lower denture bearing area.³¹ This increased surface area for upper denture will enhance it staying in position than the lower denture.

CONCLUSION

In this study it was pointed that most of the complete denture wearers had low involvement in religious activities. It was also established that both private-self perceived religiosity - and public religious activities had no significant influence on satisfaction of dentures. Therefore this psychological factor had no significant impact on satisfaction with dentures.

REFERENCES

1. Douglass CW, Shih A, Ostry L. Will there be a need for complete dentures in the United States in 2020? *J Prosthet Dent* 2002; 87:5-8.
2. Turker SB, Sener ID, Ozkan YK. Satisfaction of the complete denture wearers related to various factors. *Arch Geront Geriatr* 2009; 49:126-129.
3. Brunello DL, Mandikos MN. Construction faults, age, gender, and relative medical health: factors associated with complaints in complete denture patients. *J Prosthet Dent* 1998; 79:545-554.
4. Boucher CO. Complete denture prosthodontics—the state of the art. *J Prosthet Dent* 2004; 92: 309-315.
5. Ivanhoe JR, Cibirka RM, Parr GR. Treating the modern complete denture patient: a review of the literature. *J Prosthet Dent* 2002; 88:631-635.
6. Feine JS, Carlsson GE, Awad MA, Chehade A, Duncan WJ, Gizani S, et al. The McGill consensus statement on overdentures. *Int J Prosthodont* 2002; 15:413-414.
7. Felton DA. Edentulism and comorbid factors. *J Prosthodont* 2009; 18:88-96.
8. Van der Waas M. Determinants of dissatisfaction with dentures: a multiple regression analysis. *J Prosthet Dent* 1990; 64:569-572.
9. Garrett NR, Kapur KK, Perez P. Effects of improvements of poorly fitting dentures and new dentures on patient satisfaction. *J Prosthet Dent* 1996; 76:403-413.
10. Landesman HM. Building rapport: the art of communication in the management of the edentulous predicament. In: Zarb, GA, Bolender CL, Carlsson GE (Eds.), *Boucher's Prosthodontic Treatment for Edentulous Patients*. 11th ed. CV Mosby, St Louis. 1997:125-138.
11. Asja Celebic, Dubravka KZ, Milan P, Vlado CB. Factors related to patient satisfaction with complete denture therapy. *J Gerontol* 2003; 58:948-953.
12. Al Quran F, Clifford T, Cooper C, Lamey PJ. Influence of psychological factors on the acceptance of complete dentures. *Gerodontology* 2001; 18:35-40.
13. Fenton MR, Sheriff M, Newton JT. The influence of personality on patient's satisfaction with existing and new complete dentures. *J Dent* 2007; 35:744-748.
14. Hantash RO, Al-Omiri MK, Yunis MA, Dar-Odeh N, Lynch E. Relationship between impacts of complete denture treatment on daily living, satisfaction and personality profiles. *J Contemp Dent Pract* 2011; 12:200-207.
15. Critchlow SB, Ellis JS. Prognostic indicators for conventional complete denture therapy: a review of the literature. *J Dent* 2010; 38:2-9.
16. Greenfield EA. Religious social identity as an explanatory factor for associations between more frequent formal religious participation and psychological well-being. *Int J Psychol Rel* 2007; 17:245-259.
17. Sonogo FG, Cereta RA, Zaccaron S, Ceretta LB. User satisfaction with complete dentures made by the public network of a city in southern Santa Catarina. *Rev Gaucha Odontol* 2014; 62:123-127.
18. Fenton MR, Sherriff M. Investigation of new complete denture quality and patients' satisfaction with and use of dentures after

- two years. *J Dent* 2004; 32:327-333.
19. Celebic, Dubravka K, Milan P, Vlado C. Factors related to patient satisfaction with complete denture therapy. *J Gerontol* 2003; 58:948-953.
 20. Koenig HG, King DE, Carson VB. *Handbook of Religion and Health*, Oxford University Press, New York, NY, USA, 2nd ed: 2012: 23-30
 21. Al-Qaisi R, Alsaida K, Al-Ahmed M, Al Hneiti F, Romann R. Correlation between psychological factors and the patient's adaptation to removable denture. *Pak Oral Dent J* 2015; 35:167-172.
 22. Van Waas MA. The influence of psychologic factors on patient satisfaction with complete dentures. *J Prosthet* 1990; 63: 545-548.
 23. Heydecke G, Tedesco LA, Kowalski C, Inglehart MR. Complete dentures and oral health-related quality of life—do coping styles matter? *Comm Dent Oral Epidemiol* 2004; 32(4):297-306.
 24. Al Quran F, Clifford T, Cooper C, Lamey PJ. Influence of psychological factors on the acceptance of complete denture. *Gerodontol* 2001; 18:35-40.
 25. Fenton MR, Sherriff M, Newton JT. The influence of personality on patients' satisfaction with existing and new complete dentures. *J Dent* 2007; 35(9):744-748.
 26. McCullough ME, William TH, David BL, Harold GK, Carl T. Religious involvement and mortality: A meta – Analytic Review. *Health Psychol* 2000; 19:211-222.
 27. Kovac Z, Troskot Z, Uhac I, Cabov T, Lajnert V, Pavici DK, Filipovic – Zore I, Tariba P. Multivariate Analysis of Different Factors Affecting the Patient General Satisfaction with Complete Dentures. *Coll Antropol* 2012; 3:791-794.
 28. Hantash R O A, Al – Omri MK, Yunis M A, Dar – Odeh N, Lynch E. Relationship between impacts of complete denture treatment on daily living, satisfaction and personality profiles. *The journal of contemporary dental Practice* 2011; 12: 200-207.
 29. Veronez FC, Sonogo FGF, Ceretta RA, Zaccaron S, Ceretta LB. User satisfaction with complete dentures made by the public network of a city in Southern Santa Catarina. *Rev Gaucha Odontol* 2014; 62:123-127.
 30. Astrom A, Kida I. Perceived dental treatment need among older Tanzanian adults – a cross – sectional study. *BMC Oral Health* 2007; 7:9.
 31. Tallgren A, Lang B, Miller R. Longitudinal study of soft-tissue profile changes in patients receiving immediate complete dentures. *Int J Prosthodont* 1991; 4:9-16.