Original Article

Impact of Dental Care on Oral Health Perception, Quality of Life and Behavior: An Observational Study in a Nigerian Rural Community

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Abstract

Objective: Dental care may improve oral health behavior because of its potential to influence oral health-related quality of life (OHRQoL) and self-perception. The study objective was to examine the impact of dental care on OHRQoL and self-perception and their consequent effect on oral health behavior in rural dwelling adults. **Methods:** Randomly selected 403 participants were examined pre- and post-uptake of dental care in Udo rural community. Information on oral health behavior was obtained with questionnaires. Global rating of oral health and General Oral Health Assessment Index (GOHAI) were used to measure self-perceived oral health and OHRQoL. Normative assessment was done according to the World Health Organization Oral Health Survey criteria. Data were analyzed using SPSS (IBM) version 21.0 at 95% confidence interval (CI) and test for significance set at ($P < 0.05$). **Findings:** The mean age (±standard deviation) of the study participants was 36.1 ± 15.8 with males 258 (52.7%) and females 232 (47.3%). Only 28.4% cleaned their teeth ≥ 2 daily, and 15.3% consumed refined sugar <1 daily. A total of 200 (40.8%) participants rated their oral health as good. Low OHRQoL was noted in 256 (52.2%) participants. Postdental care, better oral health self-rating was noted in 335 (83.1%) participants. Mean GOHAI scores rose from 29.42 ± 4.96 to 35.39 ± 1.32 (Δeffect size = 1.2). Participants who reported better oral health perception and OHRQoL were more likely to improve on their tooth cleaning habits (odds ratio [OR] =1.875, 95% CI: 1.09–3.22, $P = 0.023$) and reduce the frequency in daily refined sugar consumption (OR = 2.170, 95% CI: 1.10–4.27, $P = 0.025$). **Conclusion:** Dental care improved self-perceived oral health and OHRQoL. Improvements in self-perceived oral health and OHRQoL can be used as the predictors of behavioral change in the study population.

Keywords: Dental care, oral health behavior, quality of life, rural Nigeria, self-perception

INTRODUCTION

Many chronic diseases, including dental caries and periodontal disease, are linked with behavior.[1] Untreated, these two most common oral diseases cause severe restriction in the use of orofacial structures, pain, and infective swelling.[2] They have negative impacts on individuals in performing daily activities, such as chewing, smiling, speaking, mouth cleaning, sleeping, concentration at work, social contact, and relationships.[3] Thus, quality of life which connotes one's satisfaction with daily living[4] is adversely affected.[3,4]

Behavioral factors such as unhealthy diet consumption, smoking, alcohol, inadequate oral hygiene practices, and exposure to preventive dental services have huge influence on the etiologies of these oral diseases.[5] Hence, the importance

of behavioral modification in their control cannot be over-emphasized.[1,5]

Perception is a complex cognitive process involving a set of interdependent interaction of selection of raw data from the real world using the human physical senses, its organization, and interpretation for future use.[6] For every experience, an

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individual makes a unique interpretation and response or behavior.[6] This interpretation may not be an exact and factual representation of the experience because it is influenced by an individual's perception.[7] Indeed, an individual's response or behavior can be predictive if his/her perception of an experience is understood.[6,7] Perception has been linked to oral health behavior.[8] Suboptimal awareness on importance of health and poor self-rated oral health is strongly correlated with undesirable oral health practices and poor oral health status.[1,3,8] Rationally, a relationship should exist between oral health status, quality of life, and self-perception since oral health behavior has influence on oral health status and indirectly quality of life.[3,8]

Dental care involves clinical procedures offered to maintain or improve oral health.[9] Infused in routine dental care are educational and other learning experiences to mold behavior and develop skills beneficial to oral health.[10] Reports indicate that dental care can have a profound positive impact on normative oral health status.[11] Thus, dental care can improve the oral health-related quality of life (OHRQoL).[12] Influences on an individual's perception such as awareness, beliefs, and experiences are modifiable.[6,7] Dental care through its component designed to mold behavior can bring about a whole new package of life experiences, which can affect perception in an individual.[11,13] Hence, dental care through its potential to change perception as well as improve the quality of life may precipitate good oral health behavior and ensure maintenance of good oral health. Proposed model of behavioral change is shown in Figure 1.

Advances in dentistry have enhanced better oral health globally.[14] Yet, reports of oral health in Nigerian rural communities show poor oral hygiene, largely untreated oral diseases, especially dental caries and chronic periodontal conditions.[9,15] This has been attributed mainly to poor oral health behavior.[15] It is pertinent to understand the effect of dental care on oral health behavior through its impact on oral health perception and quality of life as provision of dental care by professionals may be adapted as a tool to cause favorable oral health in Nigerian rural communities. There are many studies on self-perceived oral health and quality of life among Nigerians.[16] However, not enough research has been done on factors that can influence behavior, quality of life, and self-perception of oral health such as the provision of dental care in this population. The purpose of this study, therefore, was to examine the impact of provision of dental care on the quality of life and self-perceived oral

health as well as on oral health behavior in a Nigerian rural community.

METHODS

Study location and design

The study was conducted in Udo, a rural community in Ovia South-West Local Government Area of Edo State, Nigeria. Udo has a population of approximately 13,000.[17] Bini language or colloquial English are the *de facto* languages. Inhabitants mainly engage in agriculture and trading.

The study was observational in design with an interventional component. Adults residing in Udo were randomly selected for the study through a simple random sampling of residential houses. Oral screening was carried out in participants' residential houses. Informed consent was obtained from participants who were ≥18 years, resident in Udo and whose last dental clinic visit if any, was >12 months. Permission and ethical approval were obtained from the Traditional Ruling Council of Udo Rural Community and University of Benin Teaching Hospital's Ethics and Research Committee, respectively. The minimum sample size (*n*) of 388 was derived from the population of Udo using the Yamane formulae.[18]

$$n = \frac{N}{1 + N\,(e)^2}$$

where *n* = The minimum sample size, *N* = The population size of Udo rural community (13,196), and *e* = The acceptable sampling error at 95% confidence interval (CI) (0.05).

The study questionnaire was pretested among 46 adults who were not part of the main study. The questionnaire was re-applied 3 weeks later on the same sample. On analysis of collected data, internal consistency was 0.82 (Cronbach's coefficient alpha). Pearson correlation was 0.90 at $P = 0.004$ for test–retest reliability coefficient.

Procedure

Interviewer-administered questionnaires were used to acquire information on tooth cleaning material, smoking habit, alcohol habit, daily frequency of tooth cleaning, and refined sugar intake, with regard to oral behavior. A single-item self-report of oral health in Likert scale was used to measure self-perception of oral health with the question "How would you describe the health of your teeth and gums presently?" with five response alternatives (excellent, very good, good, fair, and poor). The General Oral Health Assessment Index (GOHAI) was used to assess the OHRQoL.[19] The GOHAI, a 12-item index, was used to assess the OHRQoL in the physical domain (measures limitation in kind or amount of food, chewing, swallowing comfortably, and speaking), psychosocial domain (measures willingness to meet people, happiness with dental appearance, concerned or nervousness about the mouth, and ease with eating in front of people), and pain including the use of medication. Questions 1–4 in GOHAI measure the physical domain. Questions 6, 7, and 9–11 measure the psychosocial
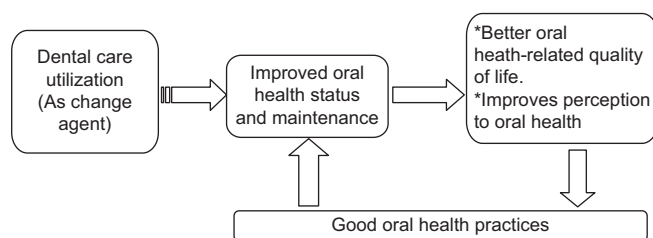

Figure 1: Proposed model of behavioral change through utilization of dental care

domain. Questions 5, 8, and 12 measure pain including the use of pain medications. The three-point Likert-type scale of GOHAI was adopted for assessment. Scoring for each item in the GOHAI ranged from 1 (never) to 3 (always). Response to all items, except items 3, 5, and 7, were reversed scored before analysis. This was because the fore-listed items' questions were asked in a "positive context." The GOHAI score for the individual ranged from 1 to 36. The grading of the individual's score was 34–36, 31–33, and ≤30 which represented high, moderate, and low OHRQoL, respectively.[20] Higher GOHAI scores indicated better OHRQoL.

The translation of the English version of the GOHAI to the colloquial English version was done to ensure adaption of the test instrument for local use and standardization on application by the interviewers. The GOHAI questionnaire was translated into the locally spoken colloquial English using the method adopted and used in translating the English version to French which was applied and validated in a study.[21] Oral screening was done in accordance to the World Health Organization Oral Health survey criteria.[22] Participants who required dental care were referred to Udo primary healthcare center. Dental care obtainable included scaling and polishing with oral health education, atraumatic restorative treatment, and tooth extraction. Data on oral health behavior, self-perception, and OHRQoL were obtained 3 months after receiving dental care. The data were used to assess for any changes in oral health behavior, self-perception, and OHRQoL on comparison with initial data from the same participant. Participants' flowchart is shown in Figure 2.

Data analysis
IBM Statistical Package for the Social Sciences Statistics for Windows (Version 21.0. Armonk, NY, USA: IBM Corp)[23] was used for data analysis at 95% CI and test for significance set at ($P < 0.05$). Frequency tables, bar chart, means, and figures with percentages were used for the presentation of

data from descriptive analysis. Fisher's exact and Chi-square tests were used to test for associations between dental care with oral health behavior, perception, and quality of life. One-way analysis of variance (ANOVA) and *t*-tests were used to compare the effect of dental care on the mean GOHAI scores. The predictor of change in self-perceived oral health, OHRQoL, and oral health behavior of the study participants' postdental care was also established using logistic regression. The change score of the GOHAI was derived from the difference between the post- and pre-dental care mean GOHAI scores in each study participant. Positive and negative change scores indicated positive and negative improvements in OHRQoL, respectively.[24] Effect-size statistics were used to quantify changes in the GOHAI. The effect-size statistics value of <0.2 indicated a small, clinically meaningful, magnitude of change; 0.2–0.7 indicated moderate change; >0.7 indicated large change.[25]

RESULTS

Description of study participants on screening
In total, 490 individuals were screened and the mean age (±standard deviation) was 36.1 ± 15.8. The males were 258 (52.7%) and females were 232 (47.3%). Toothbrush and toothpaste were used by 461 (94.1%) of the screened individuals as a tooth cleaning material. Refined sugar was consumed by 275 (56.2%) of the study participants twice or more daily. Tobacco and alcohol were used by the same, 154 (31.4%) individuals habitually. Habitual intake of alcohol in this context referred to a "must" daily intake of any available type of alcoholic drink. Over half of the participants (52.2%) had low OHRQoL, while 51.2% rated their oral health at least good. Table 1 shows oral health behavior, perception, and quality of life of the study participants.

Dental care profile
Of the 490 participants, 487 (99.4%) individuals were referred for dental care, but 432 adults (88.7% of the referred population) presented to the dental clinic for dental care. Scaling and polishing was done in 222 (51.4%) of the study participants as the only treatment procedure [Figure 3].

Impact of dental care
Only 403 adults (93.3% of the study participants who received dental care) could be accessed and evaluated 3 months after dental care was given. These 403 study participants had their pre- and post-dental care OHRQoL, self-perceived oral health, and behavior compared. Reported improvement in OHRQoL, oral health behavior, and self-perception from predental care values of each study participant on comparison was recorded as positive, negative, or no change where appropriate.

Oral health behavior, self-perception, and quality of life with dental care
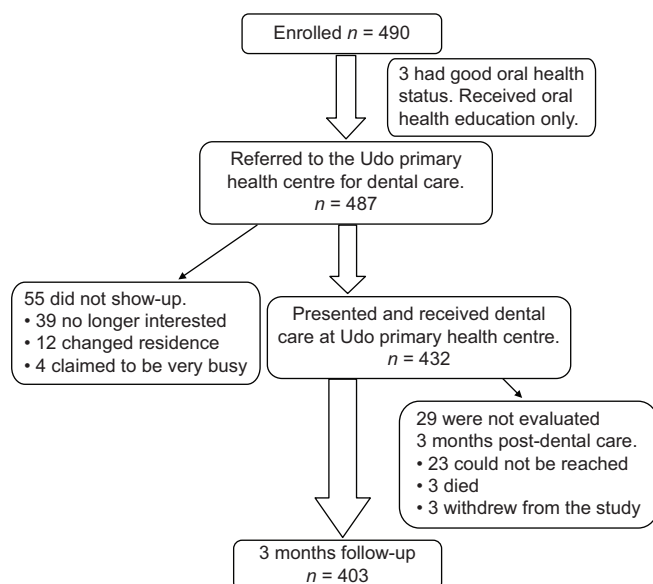Although not significant, reported improvement in oral behavior was frequency of tooth cleaning (61.0%), tooth

Figure 2: Participants' flowchart

Table 1: Oral health behavior, perception, and quality of life of the study participants

Clinical characteristics	Frequency (%)
Tooth cleaning frequency	
<Once daily	56 (11.4)
Once daily	295 (60.2)
≥Twice daily	139 (28.4)
Tooth cleaning material	
Chewing stick	22 (4.5)
Tooth brush and paste	461 (94.1)
Charcoal	7 (1.4)
Sugar consumption	
Never	28 (5.7)
<Once daily	47 (9.6)
Once daily	140 (28.6)
Twice daily	238 (48.6)
>Twice daily	37 (7.5)
Alcohol habit and tobacco habit	
Yes	154 (31.4)
No	336 (68.6)
Self-perception of oral health	
Poor	52 (10.6)
Fair	187 (38.2)
Good	200 (40.8)
Very good	32 (6.5)
Excellent	19 (3.9)
OHRQoL	
Low	256 (52.2)
Middle	94 (19.2)
High	140 (28.6)
Total	490 (100.0)

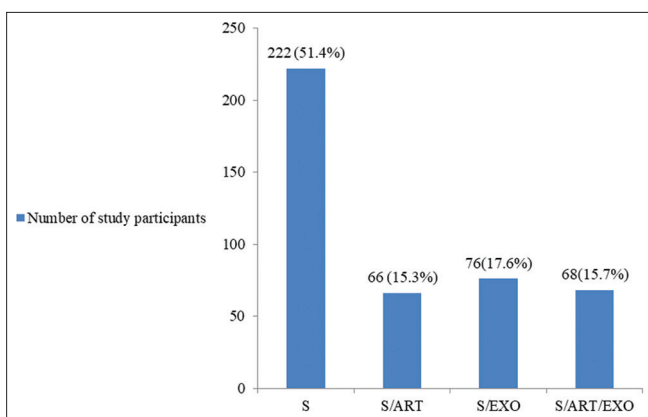OHRQoL: Oral health-related quality of life

Figure 3: Distribution of dental care given (*N* = 432) Key: S = Scaling; S/ART = Scaling with atraumatic restorative treatment; S/EXO = Scaling with exodontia; S/ART/EXO = Scaling with atraumatic restorative treatment and exodontia

cleaning material (3.7%), sugar consumption (36.0%), and tobacco and alcohol use (3.5%). A total of 335 (83.1%) study participants reported improvement in self-perception of oral health after receiving dental care. Positive improvement in OHRQoL was noted in all the study participants who had a combination of scaling, atraumatic restorative treatment, and tooth extraction as a form of dental care. Table 2 shows the association between dental care with change in self-perceived oral health and OHRQoL after provision of dental care. Positive changes in self-rated oral health and OHRQoL were significantly associated with increase in complexity of dental care received ($P < 0.05$).

General oral health assessment index scores and dental care

Study participants who had preventive treatment (scaling alone or scaling/ART) had higher pre- and post-mean GOHAI scores than other groups. However, the other groups (scaling/exodontia and scaling/ART/exodontia) had greater gains in mean GOHAI scores postdental care. A one-way ANOVA was conducted to compare the effect of dental care on mean GOHAI scores in scaling, scaling/ART, scaling/exodontia, and scaling/ART/exodontia. Dental care had a significant effect on postdental care mean GOHAI scores at $P < 0.05$ for the four categories of dental care given (F (3, 399) =3.835, $P = 0.010$). *Post hoc* comparisons using the Tukey's HSD test showed that the postdental care mean GOHAI scores for scaling (35.53 ± 1.05) was significantly higher than scaling/exodontia (35.04 ± 1.91) and scaling/ART/exodontia (35.11 ± 1.35). In addition, the postdental care mean GOHAI scores for scaling/ART (35.59 ± 1.20) were also significantly higher than scaling/exodontia (35.04 ± 1.91) and scaling/ART/exodontia (35.11 ± 1.35) as shown in Table 3.

Effect-size changes with general oral health assessment index scores

Table 4 shows the mean predental care, postdental care, and change scores of the 12 GOHAI item questions with effect size. Using paired samples *t*-test, pre- and post-dental mean GOHAI scores were weakly and positively correlated ($r = 0.272$, $P \leq 0.001$). There was a significant difference between the predental care (29.42 ± 4.96) and postdental care (35.39 ± 1.32) mean GOHAI scores; t (402) =25.070, $P \leq 0.001$. On the average, the postdental care mean GOHAI scores were 5 points higher than predental care mean GOHAI scores (95% CI: 5.50, 6.43). There was positive increase in all the postdental care mean GOHAI scores with respect to GOHAI item questions. GOHAI item 5 question which assessed eating without discomfort had the highest change score (0.85 ± 0.81). The least effect size (0.6) was recorded in the 10th- and 11th-item GOHAI questions.

Self-perceived oral health and oral health-related quality of life as predictors for oral health behavior

Table 5 shows logistic regression analysis for the predictor on change in oral health behavior by change in OHRQoL and self-perceived oral health after dental care. Change in OHRQoL and self-rated oral health had a significant effect on change in refined sugar consumption and tooth cleaning frequency, respectively. Study participants who had positive improvement in OHRQoL were twice more likely to adopt positive change in tooth cleaning material, refined sugar consumption than those with no improvement, and/or negative

Table 2: Dental care association with change in oral health self-perception and quality of life (n=403)

DC	Perceived oral health			Change in OHRQoL			Total, *n* (%)
	NE, *n* (%)	NC, *n* (%)	PC, *n* (%)	NE, *n* (%)	NC, *n* (%)	PC, *n* (%)	
S	32 (15.1)	8 (3.8)	172 (81.1)	44 (20.8)	1 (0.5)	167 (78.8)	212 (52.6)
S/ART	14 (24.1)	3 (5.2)	41 (70.7)	8 (13.8)	0 (0.0)	50 (86.2)	58 (14.4)
S/E	5 (7.2)	4 (5.8)	60 (87.0)	1 (1.4)	0 (0.0)	68 (98.6)	69 (17.1)
S/ART/E	1 (1.6)	1 (1.6)	62 (96.9)	0 (0.0)	0 (0.0)	64 (100.0)	64 (15.9)
Total	52 (12.9)	16 (4.0)	335 (83.1)	53 (13.2)	1 (0.2)	349 (86.6)	403 (100.0)
P		0.001**			<0.001**		

**Fisher's exact. DC: Dental care, S: Scaling, ART: Atraumatic restorative treatment, E: Exodontia, NE: No effect, NC: Negative change, PC: Positive change, OHRQoL: Oral health-related quality of life

Table 3: Pre- and post-dental care mean general oral health assessment index scores by type of dental care received (n=403)

DC	Mean GOHAI score±SD	
	Predental care	Postdental care
S	31.09±4.45	35.53±1.05[a]
S/ART	31.98±3.44	35.59±1.20[a]
S/E	25.41±4.13	35.04±1.91[b]
S/ART/E	25.91±3.98	35.11±1.35[b]
Total	29.42±4.96	35.39±1.31

Post-DC	Sum of squares	df	Mean square	F	Significant
Between groups	19.610	3	6.537	3.835	0.010
Within groups	680.003	399	1.704		
Total	699.613	402			

Means which contain different alphabetical superscripts on pairing are statistically significant when compared (P<0.05). DC: Dental care, S: Scaling, ART: Atraumatic restorative treatment, E: Exodontia

Table 4: Mean predental care, postdental care, and change scores of the 12 general oral health assessment index item questions with effect size (n=403)

GOHAI item questions	Mean score±SD			ES	P
	Pre-DC	Post-DC	Change		
Limitation in kind/amount of food	2.42±0.66	2.92±0.28	0.50±0.64	0.8	<0.001
Problems with biting/chewing	2.39±0.69	2.89±0.33	0.50±0.67	0.7	<0.001
Swallowing comfortably	2.51±0.72	2.98±0.16	0.47±0.73	0.7	<0.001
Speaking with difficulty	2.49±0.69	2.94±0.24	0.46±0.71	0.7	<0.001
Eating without discomfort	2.09±0.80	2.95±0.23	0.85±0.81	1.1	<0.001
Contact limitation on teeth problems	2.56±0.64	2.98±0.16	0.42±0.64	0.7	<0.001
Pleased with teeth appearance	2.38±0.71	2.94±0.24	0.57±0.70	0.8	<0.001
Use of pain medications	2.54±0.60	2.99±0.10	0.45±0.60	0.8	<0.001
Worried with teeth/gum problems	2.50±0.65	2.96±0.19	0.46±0.64	0.7	<0.001
Nervous because of teeth problems	2.58±0.63	2.96±0.20	0.38±0.61	0.6	<0.001
Uncomfortable eating with people	2.58±0.65	2.98±0.16	0.40±0.65	0.6	<0.001
Sensitivity to hot, cold or sweets	2.43±0.71	2.90±0.30	0.47±0.72	0.7	<0.001
Total	29.42±4.96	35.39±1.32	5.96±4.77	1.2	<0.001

DC: Dental care, ES: Effect size, SD: Standard deviation, GOHAI: General oral health assessment index

improvement in OHRQoL. Those with positive change in self-perceived oral health were at least twice more likely to report positive improvement in tooth cleaning frequency and tooth cleaning material than those with no improvement and/or negative improvement in self-perceived oral health.

DISCUSSION

Clinical evaluation beyond the physical domain is vital to quantify diseases and interventional impacts.[24] Preintervention, majority of the study participants rated their oral health (51.2%)

Table 5: Logistic regression analysis of impact of dental care on change in oral health behavior by change in oral health-related quality of life and self-perception

Oral health behavior	*P*	OR (95% CI) for OR
Tooth cleaning frequency		
Change in OHRQoL	0.065	0.545 (0.29-1.04)
Change in self-perception	0.023	1.875 (1.09-3.22)
Constant	0.001	21.460
Tooth cleaning material		
Change in OHRQoL	0.468	2.139 (0.27-16.66)
Change in self-perception	0.329	2.793 (0.36-21.92)
Constant	0.031	0.002
Refined sugar consumption		
Change in OHRQoL	0.025	2.170 (1.10-4.27)
Change in self-perception	0.634	0.875 (0.50-1.52)
Constant	0.066	0.167
Smoking/alcohol habit		
Change in OHRQoL	0.383	0.557 (0.15-2.07)
Change in self-perception	0.600	0.701 (0.19-2.64)
Constant	0.142	0.040

OR: Odds ratio, CI: Confidence interval, OHRQoL: Oral health-related quality of life

at least good and had low OHRQoL. This is higher than a reported rate of 37.1% in a prior study.[16] Nearly, all the screened individuals needed dental care. These findings may be an indication of an improper comprehension of what optimal oral health, leading to high quality of life entails and a culture of accepting oral symptoms as normal till they cannot cope with the pain or severe impairment in performing activities of daily living.[9,10,16]

Although there was no significant association between improvement in oral health behavior and dental care, 61.0% of the study participants improved in frequency of tooth cleaning as recommended by the clinician after receiving dental care. Less than 4.0% adopted the use of toothbrush and paste as a new tooth cleaning materials. Same proportion also reported reduced indulgent in the tobacco and alcohol use. About one-third of the study participants consumed less sugar. A causal reason for this study finding may be the addictive nature of sugar consumption, tobacco, and alcohol use habits.[26-28] Nearly, all the study participants used toothpaste and toothbrush as a tooth cleaning material before uptake of dental care; hence, the little improvement recorded. Improvement in frequency of tooth cleaning may be attributed to the desire to maintain the improved oral health status by study participants.[16]

As was reported in previous studies,[24,29] there was a global increase in the mean GOHAI scores of each GOHAI item questions in this study. Relatively, higher gains in mean GOHAI scores were obtained from participants who received nonpreventive dental care (scaling/extractions or scaling/ART/extractions). This meant that dental care brought more improvement in the OHRQoL as the complexity of the dental care increased. However, higher mean GOHAI scores

were noted in study participants who had preventive dental care (scaling or scaling/ART) pre- and post-dental care. The inference of this finding is that individuals with fewer burdens of oral diseases had better OHRQoL with or without the utilization of dental care. This lends support to the preventive approach to the management of oral diseases.[5]

Response to pain and use of analgesics were most affected by dental care. This indicated dental care through its curative abilities eliminated pain and discomfort during function with respect to orofacial tissues.[19] The psychosocial domain was the least affected. This observation showed that the presence of common oral diseases had relatively little impediment in these adults maintaining social roles and relationships.[19] The overall effect size value indicated large clinically meaningful change in OHRQoL of the study participants after dental care.[25] This magnitude of change can easily be noticed by other people.[25] Fillion *et al.*[30] reported fairly uniform improvement in all GOHAI domains with moderate overall effect size on utilization of dental care for varying forms of edentulism. Omeje *et al.*[31] observed marked improvement in the pain and psychosocial domains after care for mandibular fractures. However, pain domain made dominant improvements in early evaluation with GOHAI, while psychosocial domain was dominant in later evaluations. Different forms of dental care given and time frame of evaluation may account for the noted variations from prior studies.

There was improvement in oral self-perception of oral health and OHRQoL as the complexities of dental care broaden from preventive to nonpreventive care. Previous reports support this observation.[13,30] Nonpreventive dental care limits the harmful effects of oral diseases, improving oral function.[16] In addition, this form of care will lead to more exposure to dental procedures and contact with the clinician deepening knowledge of dentistry.[13] Hence, this rationale may be useful when recommending regular contact with the clinician.

Udo presented an ideal choice to assess access to and uptake of dental care in a rural population because it has a primary healthcare center that offers dental services, which is a rarity in Edo State. This study however reveals that dental care was suboptimal in this population as nearly all the participants had at least an unmet normative dental care need. There is obviously a lack of perceived dental need as majority of the participants actually rated their oral health as good with low OHRQoL scores. Hence, the provision of dental care for them served to bridge the gap between normative and perceived needs and subsequently may result in better utilization of dental care, especially for preventive measures and better oral health outcomes for the population.

In light of the observations made in the study, it is apt to recommend the full integration of basic package of oral care into primary healthcare as a panacea to the identified needs in Nigerian rural communities. It is a proven sustainable community service and contains dental care services which were used as intervention in this study.[32] The clinical dental care component of this package is cost-efficient and

cost-effective for the management of common oral diseases.[32] It is highly suitable for Nigerian rural areas because of its dependence on simple and manually-activated instruments.[33] Further, its health promotional component will help address other determinants of poor oral health.[32,33]

Improvements in self-perceived oral health and OHRQoL after dental care were significant predictors of behavioral change in this study. Adults with improved perception of oral health and OHRQoL adopted better oral hygiene practices by cleaning their mouth and less frequently consumed sugar as recommended by a clinician. This is an encouraging result. Previous studies have reported association of poor self-perception of oral health and low OHRQoL with poor compliance with oral self-care practices.[10,13,34] Hence, it is rational that improvements to better self-perception of oral health and higher OHRQoL would precipitate such occurrence as observed in this study. Dental care in the form of scaling and polishing with oral hygiene instructions, atraumatic restorative treatment, and tooth extraction can therefore be a tool to effect behavioral change favorable to oral health.

Conclusion

Dental care significantly improved self-perceived oral health and OHRQoL. Improvements in self-perceived oral health and OHRQoL can precipitate good oral health behavior in this study population. Regular uptake of preventive dental care can ensure maintenance of good oral health and quality of life.

Conflicts of interest

There are no conflicts of interest.

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