Original Article

Oral Complications of Radiotherapy for Head and Neck Cancer; Knowledge of Dentists in Riyadh, Saudi Arabia

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Abstract

Radiotherapy for head and neck cancer usually involves a total dose of 6000-7000 cGy, delivered daily in 6-7 weeks, and is known to cause several oral complications. These include oral mucositis, oral pain, insufficient saliva production, increased risk of dental caries, decreased mouth opening, and osteoradionecrosis. This is a cross-sectional study conducted among Saudi dental professionals using an online survey; 463 dentists from Riyadh City were utilized in this study. Findings reported that almost equal numbers of males (51.9%) and females (48.1%) participated in the study; the majority of them were working as general dentists in the government sector. A significantly significant proportion of them thought that oral assessment is a necessity before radiotherapy and that the ideal time for a complete oral evaluation is after the diagnosis of cancer. In the present study, we concluded that the majority of dentists thought that oral assessment is necessary before radiotherapy and that the ideal time is after the diagnosis. The evaluation must include extraction of teeth with poor prognosis, and radiotherapy after oral surgery should be started after 3-4 months. Teeth cleaning was recommended, and most dentists were not confident in treating oral cancer patients.

Keywords: *Dental complications, Radiotherapy, Dental practitioners, Knowledge*

Introduction

The incidence of malignant tumors is on the rise in different communities, making it the second leading cause of death in developed countries.[1, 2] In addition to surgery and chemotherapy, one of the treatments for these malignant tumors is radiotherapy.[3] Radiotherapy itself may cause some complications in the area receiving radiotherapy. Some acute complications of head and neck radiotherapy can cause nausea, vomiting, mucositis, xerostomia, loss of taste, closed teeth, and tooth hypersensitivity.[4]

Radiotherapy for head and neck cancer usually involves a total dose of 6000-7000 cGy, delivered daily in 6-7 weeks, and is known to cause several oral complications. These include oral mucositis, oral pain, insufficient saliva production, increased risk of dental caries, decreased mouth opening, and osteoradionecrosis. Intensity-modulated Radiation Therapy (IMRT) is now considered the standard of treatment HNC with IMRT. The radiation dose can be reduced to Adjacent structures (such as salivary glands), which may reduce morbidity and/or the severity of oral complications.[5]

The advancement of new therapies and existing therapies is accompanied by a series of new side effects and complications, especially in the fields of radiation oncology and immunotherapy.[6] Poor oral health may make patients more susceptible to oral mucositis. The inflammatory process may be exacerbated to varying degrees, depending on the microorganisms and their abundance. Candidiasis occurs in secondary infections, and several types of Candida OM ulcers have been detected.[7]

In addition to the aforementioned side effects, oral diseases associated with RTX also include increased susceptibility to tooth decay and periodontal disease. Patients irradiated in the head and neck have an increased risk of periodontal disease because it is usually associated with insufficient saliva secretion and changes in the oral microbiome; in addition, periodontitis is considered a trigger of ORN. The prevalence of periodontitis in adults is common and may worsen with tumor treatment. Exacerbation of periodontitis after radiotherapy may require

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tooth extraction, which may lead to ORN.[8]

The National Cancer Institute's common toxicity standards and xerostomia are based on the Radiation Oncology Symposium parameters. Mucositis was first seen in week 2, and all patients experienced some degree of mucositis by week 4 of radiation therapy. All patients experienced dry mouth in the 4th week; however, all patients observed dysphagia only in the 6th week. In the second week, dysgeusia was first observed and became more severe in the third week. Acute oral cavity complications can be observed throughout the treatment, but the third week of radiotherapy seems to be critical, regardless of the level of complications. The sixth week is the most serious of these complications.[9]

An email survey of 800 New Zealand general dentists was conducted. Qualitative data was also collected. The majority of respondents (73.4%) believed that providing dental treatment to HNC patients is within their scope of practice, but few have recent experience. General dentists were found to have sufficient knowledge in practice, if not in theory. Few clinicians reported confidence in treating HNC patients. New Zealand graduates scored higher in the areas of knowledge, attitude, and behavior than their counterparts trained overseas.[10]

In a survey at Kerman University, older dentists had a low level of knowledge. Dentists with experience in the dental treatment of cancer patients scored significantly higher in knowledge and practice. Those who only worked in private offices had higher practice scores. The knowledge and level of practice of dentists were not significantly related to their gender or university graduation. Kerman's general dentist seems to have a moderate level of knowledge and a moderate to low level of practice in cancer patients' oral and dental care. It seems necessary to include relevant education courses in the continuing education program of dentists to improve the level of dental services provided for cancer.[11]

Radiation-related caries (RRC) is one of the most antagonistic complications of radiation therapy (RT) for head and neck cancer (HNC) survivors. Lack of RRC knowledge may lead to several oral complications. RRC may be analyzed as a "forgotten oral complication" by HNC patients, oncologists, and dentists.[12]

Benefits of the study
The findings of this study may be helpful for future practice related to the prevention and treatment of complications related to radiotherapy given for head and neck cancer.

Scope of the study
This study focused mainly on the knowledge and practice of Saudi dental professionals residing in Riyadh City.

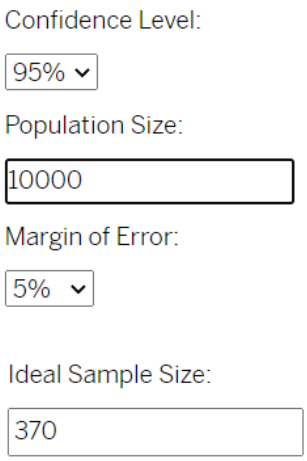
Study hypotheses
The knowledge and attitude of dentists toward radiotherapy-related complications are satisfactory.

Aims of the study
- To determine the knowledge and practice of Saudi dentists towards complications due to radiotherapy in the head and neck region.
- To compare the responses based on gender, work experience, and designation.

Materials and Methods

Study design
This is a cross-sectional study conducted among Saudi dental professionals using an online survey.

Study sample
463 dentists from Riyadh City were utilized in this study.



Study instrument
The online questionnaire consists of questions related to demographic data followed by questions including knowledge and attitude towards complications and their management. The questionnaire consisted of closed-ended questions. Consent was taken from the participants before beginning with answering the questions. Google Forms were utilized as a mode of questionnaire building and distributing. Data were kept confidential and stored until its use.

Instrument validity and reliability
A pilot study was conducted by sending the survey to 20 participants. The data were inserted in SPSS version 22 to determine the **reliability** using Chronbach's coefficient alpha (value: 0.729). **The validity** of the questionnaire was tested by sending it to experienced researchers in REU, and changes were made according to their feedback and comments.

CHERRIES checklist (check appendix)

Statistical analysis
Collected data were analyzed using SPSS version 22, where descriptive as well as inferential statistics were conducted.

Comparisons between groups were made with the value of significance kept under 0.05 using the Chi-square test.

Results and Discussion

In the present study, the findings reported that almost equal numbers of males (51.9%) and females (48.1%) participated in the study; the majority of them were working as general dentists in the government sector **(Table 1)**. A significantly significant proportion of them thought that oral assessment is a necessity before radiotherapy and that the ideal time for a complete oral evaluation is after the diagnosis of cancer. The assessment before radiotherapy must include the extraction of teeth with a poor prognosis. The ideal time for radiography after oral surgery is after 2 weeks. Teeth cleaning or oral prophylaxis is recommended before radiotherapy by the majority of dentists. According to dentists, 3-4 months of follow up needed post-radiotherapy for a patient. Most dentists prefer to pre-dental radiation assessments and give advice about managing the side effects of treatment. The majority of participants remained neutral on communicating with the patient's oncologist and were into further opportunities about a patient with cancer. The majority of participants remained neutral on their confidence about treating oral cancer patients. In the subsequent analysis, we explored non-significant gender differences **(Table 2)**.

Table 1. Frequencies

Variable	Frequency Percentage
As a dentist, do you think there is any necessity for oral/dental assessment before radiotherapy for head and neck cancer patients?	
Yes	92.6%
No	3.7%
I do not know	3.7%
The ideal time to do a comprehensive oral evaluation for head and neck cancer patients.	
After cancer diagnosis	87%
During Radiography	5.6%
After radiography	0.9%
Only as needed	6.5%
Before radiography for head and neck cancer patients, oral/dental assessment and management should include.	
Through hard and soft tissues examination	35.2%
Extraction of teeth with poor prognosis	48.1%
Appropriate radiographs such as full mouth x-ray and panorama	11.1%
Extraction of deeply impacted teeth without pathology	4.6%
Fluoride Application	0.9%
The ideal time to begin radiography after oral surgery such as teeth extraction:	
2-3 days	4.6%
4-7 days	6.5%
After a week	14.8%
After 2 weeks	69.4%
As soon as possible	4.6%
Is oral prophylaxis (teeth cleaning) recommended before radiotherapy?	
Yes	71.3%
No	13.9%
I do not know	14.8%
How often do head and neck cancer patients need to follow up with a dentist post-radiotherapy?	
3-4 months	77.8%
Once a year	14.8%
Only when needed	7.4%
I prefer to refer oral cancer patients for pre-radiation therapy dental assessment.	
Strongly agree	72.2%
Agree	18.5%
Neutral	9.3%
I feel confident in giving advice to patients regarding the management of chronic complications of their cancer treatment.	
Strongly agree	25.9%
Agree	27.8%
Neutral	34.3%
Disagree	7.4%
Strongly disagree	4.6%
I feel confident in giving advice to patients regarding the management of acute side effects of their cancer treatment.	
Strongly agree	21.3%
Agree	32.4%
Neutral	26.9%
Disagree	13%
Strongly disagree	6.5%
I always communicate with a patient's radiation oncologist when asked to assess patients prior to the commencement of radiation therapy.	
Strongly agree	31.5%
Agree	27.8%
Neutral	34.3%
Disagree	2.8%
Strongly disagree	3.7%
I am interested in attending continuing education courses on the management of oral cancer patients.	
Strongly agree	43.5%
Agree	31.5%
Neutral	18.5%
Disagree	3.7%
Strongly disagree	2.8%
I am confident in treating oral cancer patients	
Strongly agree	21.3%
Agree	25.9%
Neutral	33.3%
Disagree	10.2%
Strongly disagree	9.3%

Table 2. Comparison across gender

Variable	Male	Female	P-value
As a dentist, do you think there is any necessity for oral/dental assessment before radiotherapy for head and neck cancer patients?			
Yes	92.9%	92.3%	
No	5.3%	1.9%	.365
I do not know	1.8%	5.8%	

The ideal time to do a comprehensive oral evaluation for head and neck cancer patients.			
After cancer diagnosis	82.1%	92.3%	.183
During Radiography	8.9%	1.9%	
After radiography	00	1.9%	
Only as needed	8.9%	3.8%	
Before radiography for head and neck cancer patients, oral/dental assessment and management should include.			
Through hard and soft tissues examination	41.1%	28.8%	.257
Extraction of teeth with poor prognosis	39.3%	57.7%	
Appropriate radiographs such as full mouth x-ray and panorama	14.3%	7.7%	
Extraction of deeply impacted teeth without pathology	3.6%	5.8%	
Fluoride Application	1.8%	00	
The ideal time to begin radiography after oral surgery such as teeth extraction:			
2-3 days	3.6%	5.8%	.062
4-7 days	10.7%	1.9%	
After a week	14.3%	15.4%	
After 2 weeks	62.5%	76.9%	
As soon as possible	8.9%	00	
Is oral prophylaxis (teeth cleaning) recommended before radiotherapy?			
Yes	66.1%	76.9%	.456
No	16.1%	11.5%	
I do not know	17.9%	11.5%	
How often do head and neck cancer patients need to follow up with a dentist post-radiotherapy?			
3-4 months	78.6%	76.9%	.218
Once a year	10.7%	19.2%	
Only when needed	10.7%	3.8%	
I prefer to refer oral cancer patients for pre-radiation therapy dental assessment.			
Strongly agree	66.1%	76.9%	.258
Agree	16.1%	11.5%	
Neutral	17.9%	11.5%	
I feel confident in giving advice to patients regarding the management of chronic complications of their cancer treatment.			
Strongly agree	30.4%	21.2%	.258
Agree	33.9%	21.2%	
Neutral	26.8%	42.3%	
Disagree	5.4%	9.6%	
Strongly disagree	3.6%	5.8%	
I feel confident in giving advice to patients regarding the management of acute side effects of their cancer treatment.			
Strongly agree	19.6%	23.1%	.623
Agree	37.5%	26.9%	
Neutral	26.7%	26.9%	
Disagree	12.5%	13.5%	
Strongly disagree	3.6%	9.6%	
I always communicate with a patient's radiation oncologist when asked to assess patients prior to the commencement of radiation therapy.			
Strongly agree	28.6%	34.6%	.458
Agree	25%	30.8%	
Neutral	41.1%	26.9%	
Disagree	3.57%	1.9%	
Strongly disagree	1.9%	5.8%	
I am interested in attending continuing education courses on the management of oral cancer patients.			
Strongly agree	39.3%	48.1%	.455
Agree	33.9%	28.8%	
Neutral	23.2%	13.5%	
Disagree	1.8%	5.8%	
Strongly disagree	1.8%	3.8%	
I am confident in treating oral cancer patients			
Strongly agree	21.4%	21.1%	.506
Agree	26.8%	25%	
Neutral	37.5%	28.8%	
Disagree	5.4%	15.4%	
Strongly disagree	8.9%	9.6%	

The findings reported that the majority of males and females were working as general dentists and in government sector hospitals. Both of them think an oral assessment is necessary before radiotherapy, and the ideal time is after the diagnosis. Management before radiotherapy must include thorough hard, and soft tissue examination according to male participants and extraction of teeth with poor prognosis according to females. The ideal time for radiotherapy after oral surgery was after 2 weeks from both groups, and teeth cleaning was recommended. Follow-up with a dentist post-radiotherapy should be 3-4 months. Both groups refer cancer patients for dental assessment before radiation. The male was confident in giving advice on managing complications of cancer treatment and side effects while equal numbers of females agreed and remained neutral on this. Female dentists communicate with oncologists of their patients while males were neutral on this. Both groups are interested in attending further courses. Both groups remained neutral on treating oral cancer patients. It reported that dentists, either general or specialist, were working in the private sector and thought that oral assessment was necessary before radiotherapy. The ideal time for a complete oral evaluation was after diagnosis for both groups, and management should include teeth extraction with a poor prognosis. For radiotherapy after oral surgery, the ideal time is after 2 weeks, and teeth cleaning is recommended before radiotherapy from the majority of both groups. According to both groups, follow-up should be up to 3-4 months and refer for oral assessment before radiotherapy. General dentists feel confident while giving advice about complications and side effects while specialists remain neutral. A specialist always communicates with the oncologist of the patient while general dentists remain neutral. Both groups were interested in getting enrolled in further courses. Specialists were confident in treating oral cancer, while general dentists remained neutral **(Table 3)**.

Table 3. Comparison across Work position

Variable	General dentists	Specialist/ Consultant	P value
As a dentist, do you think there is any necessity for oral/dental assessment before radiotherapy for head and neck cancer patients?			
Yes	90.9%	90.3%	.342
No	6.3%	2.9%	
I do not know	2.8%	6.8%	

The ideal time to do a comprehensive oral evaluation for head and neck cancer patients.			
After cancer diagnosis	82.1%	92.3%	
During Radiography	8.9%	1.9%	.123
After radiography	00	1.9%	
Only as needed	8.9%	3.8%	
Before radiography for head and neck cancer patients, oral/dental assessment and management should include.			
Through hard and soft tissues examination	40.1%	28.8%	
Extraction of teeth with poor prognosis	40.3%	57.7%	
Appropriate radiographs such as full mouth x-ray and panorama	14.3%	7.7%	.342
Extraction of deeply impacted teeth without pathology	3.6%	5.8%	
Fluoride Application	1.8%	00	
The ideal time to begin radiography after oral surgery such as teeth extraction:			
2-3 days	2.6%	6.8%	
4-7 days	10.7%	2.9%	
After a week	14.3%	13.4%	.034
After 2 weeks	63.5%	76.9%	
As soon as possible	8.9%	00	
Is oral prophylaxis (teeth cleaning) recommended before radiotherapy?			
Yes	67.1%	77.9%	
No	16.1%	10.5%	.434
I do not know	16.9%	11.5%	
How often do head and neck cancer patients need to follow up with a dentist post-radiotherapy?			
3-4 months	76.6%	74.9%	
Once a year	12.7%	20.2%	.123
Only when needed	12.7%	6.8%	
I prefer to refer oral cancer patients for pre-radiation therapy dental assessment.			
Strongly agree	64.1%	74.9%	
Agree	18.1%	12.5%	.013
Neutral	19.9%	12.5%	
I feel confident in giving advice to patients regarding the management of chronic complications of their cancer treatment.			
Strongly agree	30.4%	20.2%	
Agree	32.9%	21.2%	
Neutral	26.8%	42.3%	.234
Disagree	6.4%	10.6%	
Strongly disagree	3.6%	5.8%	
I feel confident in giving advice to patients regarding the management of acute side effects of their cancer treatment.			
Strongly agree	18.6%	22.1%	
Agree	36.5%	24.9%	
Neutral	26.7%	28.9%	.453
Disagree	12.5%	14.5%	
Strongly disagree	5.6%	9.6%	
I always communicate with a patient's radiation oncologist when asked to assess patients prior to the commencement of radiation therapy.			
Strongly agree	28.6%	32.6%	
Agree	24%	31.8%	
Neutral	40.1%	26.9%	.456
Disagree	5.57%	2.9%	
Strongly disagree	1.9%	5.8%	
I am interested in attending continuing education courses on the management of oral cancer patients.			
Strongly agree	38.3%	48.1%	
Agree	34.9%	28.8%	
Neutral	22.2%	12.5%	.342
Disagree	2.8%	6.8%	
Strongly disagree	1.8%	3.8%	
I am confident in treating oral cancer patients			
Strongly agree	20.4%	20.1%	
Agree	24.8%	29%	
Neutral	38.5%	24.8%	.523
Disagree	6.4%	16.4%	
Strongly disagree	9.9%	9.6%	

In the following analysis of comparison across the working sector, we explored the non-significant differences, and dentists from both the private and public sectors think the assessment is necessary before radiotherapy the ideal time is after diagnosis. Management should include tooth extraction with a poor prognosis. An ideal time for radiotherapy after oral surgery is after 2 weeks for both groups. Teeth cleaning was recommended by both groups, and follow-up should be 3-4 months. Both groups refer to pre-radiation oral assessment, and in giving advice about complications and side effects, both groups remained neutral. Both groups agreed on communicating with the patient's oncologist and are interested in attending further courses. Both groups agreed on treating oral cancer patients **(Table 4)**.

Table 4. Comparison across the working sector

Variable	Private	Government	P-value
As a dentist, do you think there is any necessity for oral/dental assessment before radiotherapy for head and neck cancer patients?			
Yes	80.9%	85.3%	
No	10.3%	5.9%	.094
I do not know	8.8%	8.8%	
The ideal time to do a comprehensive oral evaluation for head and neck cancer patients.			
After cancer diagnosis	85.1%	94.3%	
During Radiography	10.9%	1.9%	.056
After radiography	00	1.9%	
Only as needed	9.9%	1.8%	
Before radiography for head and neck cancer patients, oral/dental assessment and management should include.			
Through hard and soft tissues examination	39.1%	28.8%	
Extraction of teeth with poor prognosis	41.3%	55.7%	
Appropriate radiographs such as full mouth x-ray and panorama	10.3%	5.7%	.345
Extraction of deeply impacted teeth without pathology	5.6%	9.8%	
Fluoride Application	3.8%	00	

The ideal time to begin radiography after oral surgery such as teeth extraction:			
2-3 days	2.6%	6.8%	
4-7 days	10.7%	3.9%	
After a week	12.3%	12.4%	.234
After 2 weeks	65.5%	76.9%	
As soon as possible	8.9%	00	
Is oral prophylaxis (teeth cleaning) recommended before radiotherapy?			
Yes	65.1%	74.9%	
No	18.1%	12.5%	.345
I do not know	16.9%	13.5%	
How often do head and neck cancer patients need to follow up with a dentist post-radiotherapy?			
3-4 months	76.6%	74.9%	
Once a year	12.7%	20.2%	.657
Only when needed	12.7%	6.8%	
I prefer to refer oral cancer patients for pre-radiation therapy dental assessment.			
Strongly agree	64.1%	74.9%	
Agree	18.1%	12.5%	.547
Neutral	19.9%	12.5%	
I feel confident in giving advice to patients regarding the management of chronic complications of their cancer treatment.			
Strongly agree	29.4%	20.2%	
Agree	28.9%	21.2%	
Neutral	31.8%	42.3%	.132
Disagree	6.4%	10.6%	
Strongly disagree	3.6%	5.8%	
I feel confident in giving advice to patients regarding the management of acute side effects of their cancer treatment.			
Strongly agree	17.6%	23.1%	
Agree	30.5%	24.9%	
Neutral	35.7%	26.9%	.034
Disagree	12.5%	15.5%	
Strongly disagree	5.6%	9.6%	
I always communicate with a patient's radiation oncologist when asked to assess patients prior to the commencement of radiation therapy.			
Strongly agree	38.6%	32.6%	
Agree	25%	31.8%	
Neutral	30.1%	25.9%	.096
Disagree	4.57%	1.9%	
Strongly disagree	1.9%	5.8%	
I am interested in attending continuing education courses on the management of oral cancer patients.			
Strongly agree	37.3%	47.1%	
Agree	35.9%	29.8%	
Neutral	22.2%	11.5%	.645
Disagree	2.8%	7.8%	
Strongly disagree	1.8%	3.8%	
I am confident in treating oral cancer patients			
Strongly agree	31.4%	25.1%	
Agree	23.8%	24%	
Neutral	25.5%	24.8%	.546
Disagree	9.4%	16.4%	
Strongly disagree	9.9%	9.6%	

In this study, we looked at practitioners' awareness of oral and dental consequences of radiation in patients with neck and head cancer in Saudi Arabia. A cross-sectional survey design and simple random sampling were employed to gather the data. After establishing the normality and reliability of the data, additional analysis was carried out using SPSS, and Chi-square was used to evaluate the comparisons between groups. According to the survey findings, nearly equal numbers of male (51.9%) and female (48.1%) participants participated in the study, with the majority of them working as general dentists in the government sector. Previous studies also reported that the findings indicated astounding findings of the necessity for (97%) and the optimal chance of dental/oral assessments of patients undergoing radiation (92 percent).[13]

Previously, 31% of respondents felt that "extraction of heavily impacted teeth without disease" should be included in oral/dental evaluation and treatment before radiation. On teeth that are not because of infections, interventions should be applied despite any treatment plan. The situation for this is that "all healthy teeth as well as significantly impacted teeth without sickness are left in situ." The ideal time for radiography after oral surgery is after 2 weeks. Teeth cleaning or oral prophylaxis is recommended before radiotherapy by a majority of dentists, and studies also supported the results as the time for radiotherapy after surgery should be after 2 weeks.[13]

According to dentists, 3-4 months of follow up needed post-radiotherapy for a patient. Most dentists prefer to pre-radiation dental assessments and give advice about managing the side effects of treatment. The majority of participants remained neutral on communicating with the patient's oncologist and were keen to participate in further opportunities for a patient with cancer. The majority of participants remained neutral on their confidence about treating oral cancer patients. In gender differences, findings reported that the majority of males and females both were working as general dentists and in government sector hospitals. Both of them think an oral assessment is a necessity before radiotherapy and the ideal time is after the diagnosis. Management before radiotherapy must include thorough hard, and soft tissue examination according to male participants and extraction of teeth with poor prognosis according to females. Studies also reported the same results where the majority of females agreed with extraction with a poor prognosis.[13]

The ideal time for radiotherapy after oral surgery was after 2 weeks from both groups, and teeth cleaning was recommended. Follow-up with a dentist post-radiotherapy should be 3-4 months and studies reported almost the same results but males selected this in the majority than females. Both groups refer cancer patients for dental assessment before radiation. The male was confident in giving advice on managing complications of cancer treatment and side effects while equal numbers of females agreed and remained neutral on this. Female dentists communicate with oncologists of their patients while males were neutral on this. Both groups are interested in attending further courses. Both groups remained

neutral on treating oral cancer patients. At the same time, the study reported that those working in the private sector have good knowledge and confidence than those working in the public sector or universities.[13]

It was reported that dentists, either general or specialist, were working in the private sector and thought that oral assessment was necessary before radiotherapy. The ideal time for a complete oral evaluation was after diagnosis for both groups, and management should include teeth extraction with a poor prognosis. For radiotherapy after oral surgery, the ideal time is after 2 weeks, and teeth cleaning is recommended before radiotherapy from the majority of both groups. According to both groups, follow-up should be up to 3-4 months and refer for oral assessment before radiotherapy. General dentists feel confident while giving advice about complications and side effects. At the same time, specialists remain neutral, while studies reported the same as dentists having specialization always recommend communicating with the oncologist of the patient before radiotherapy or any kind of oral treatment.[13]

A specialist always communicates with the oncologist of the patient while general dentists remain neutral. Both groups were interested in getting enrolled in further courses. Specialists were confident in treating oral cancer, while general dentists remained neutral. In the working sector, we explored the non-significant differences, and dentists from both the private and public sectors think the assessment is necessary before radiotherapy. An ideal time is after diagnosis. Management should include tooth extraction with poop prognosis, and the ideal time for radiotherapy after oral surgery is after 2 weeks for both groups according to research, usually acknowledged that teeth with a bad prognosis should remove pre-radiation.[13] Teeth cleaning was recommended by both groups, and follow-up should be 3-4 months. Both groups refer to pre-radiation oral assessment, and in giving advice about complications and side effects, both groups remained neutral. Both groups agreed on communicating with the patient's oncologist and are interested in attending further courses. Both groups agreed on treating oral cancer patients.[14]

Limitations

The present study was carried out using an online self-report questionnaire, which raises the question of the study's reliability and internal consistency, including the social desirability and lesser sample problems, which further raise questions on the generalizability of the study.

Conclusion

In the present study, we concluded that the majority of dentists thought that oral assessment is necessary before radiotherapy and that the ideal time is after the diagnosis. The evaluation must include extraction of teeth with poor prognosis, and radiotherapy after oral surgery should be started after 3-4 months. Teeth cleaning was recommended, and not the majority of dentists were confident in treating oral cancer patients.

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Conflict of interest

None.

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Ethics statement

None.

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