

Oral Complications of Radiotherapy in Head and Neck Cancer: Awareness among Dentists in Riyadh, Saudi Arabia

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ABSTRACT

Radiotherapy for head and neck cancer usually involves administering a total dose ranging from 6000-7000 cGy, given daily over a 6-7 week period, and is associated with a variety of oral complications. These complications include oral mucositis, oral pain, decreased saliva secretion, an increased likelihood of dental caries, limited mouth opening, and osteoradionecrosis. This cross-sectional study aimed to assess the knowledge of Saudi dental professionals through an online survey, with 463 dentists from Riyadh City participating. The results showed a near-equal distribution of male (51.9%) and female (48.1%) participants, most of whom worked as general dentists in the public sector. A significant proportion of respondents agreed on the importance of performing an oral assessment before radiotherapy, with the ideal timing for this evaluation being after a cancer diagnosis. The study concluded that most dentists recognized the need for an oral assessment before radiotherapy, emphasizing the need to extract teeth with poor prognosis and to delay radiotherapy following oral surgery by 3-4 months. In addition, routine teeth cleaning was recommended, but many dentists expressed a lack of confidence in treating patients with oral cancer.

Keywords: Knowledge, Dental complications, Dental practitioners, Radiotherapy

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Introduction

The occurrence of malignant tumors has been rising across various populations, making them the second leading cause of death in developed nations [1, 2]. Alongside surgery and chemotherapy, radiotherapy is a common treatment for these tumors [3]. However, radiotherapy can induce complications in the irradiated areas, with several acute side effects observed in patients receiving head and neck radiotherapy. These include nausea, vomiting, mucositis, xerostomia, altered taste perception, restricted jaw movement, and heightened tooth sensitivity [4].

Head and neck cancer (HNC) radiotherapy typically involves a total radiation dose of 6000-7000 cGy, administered daily over 6-7 weeks, and is known to cause a variety of oral complications. These issues range from oral mucositis and pain to reduced saliva production, higher risks of dental decay, limited mouth opening, and osteoradionecrosis. Intensity-modulated radiation therapy (IMRT) has now become the standard approach for HNC treatment, allowing for reduced radiation exposure to adjacent structures, such as salivary glands, potentially minimizing the severity and frequency of oral complications [5].

Advances in both new and existing therapies bring about additional side effects and complications, particularly in radiation oncology and immunotherapy [6]. Poor oral health may increase patients' vulnerability to oral mucositis,

with the extent of the inflammatory response potentially influenced by the types and abundance of microorganisms present. Secondary infections, such as candidiasis, are common, with various types of Candida OM ulcers identified [7].

Beyond these primary side effects, patients undergoing radiotherapy for head and neck cancers are more prone to developing tooth decay and periodontal disease. The risk of periodontal disease in irradiated patients is typically higher due to decreased saliva production and alterations in the oral microbiome. Furthermore, periodontitis can trigger osteoradionecrosis (ORN), and as periodontitis is already prevalent among adults, its exacerbation during cancer treatment may necessitate tooth extraction, which can further lead to ORN [8].

The common toxicity criteria established by the National Cancer Institute and the parameters set by the Radiation Oncology Symposium provide insights into the progression of radiotherapy-related oral complications. Mucositis is typically observed by the second week, with all patients experiencing some form of it by the fourth week of treatment. Dry mouth, or xerostomia, is also common by the fourth week, while dysphagia only appears in the sixth week. Dysgeusia, or taste changes, first appears in the second week and worsens by the third week. Although acute oral complications can occur at any point during treatment, the third week marks a critical phase, with the sixth week being the most severe for these complications [9].

A survey conducted through email among 800 general dentists in New Zealand also explored their perceptions of dental care for HNC patients. Most respondents (73.4%) acknowledged that treating these patients was within their professional scope, though many lacked recent experience. While general dentists demonstrated adequate theoretical knowledge, few felt confident in managing HNC patients. Dentists who had graduated in New Zealand were found to score higher on knowledge, attitudes, and behaviors related to treating cancer patients compared to their overseas-trained counterparts [10].

A similar survey at Kerman University revealed that older dentists generally had lower levels of knowledge, while those with experience in treating cancer patients scored significantly better in both knowledge and practice. Dentists working in private practice scored higher in practical aspects compared to those in public practice. There was no significant correlation between gender, graduation institution, and knowledge or practice levels. The findings suggest that Kerman's general dentists have a moderate level of knowledge and a relatively low to moderate level of practice regarding cancer patients' oral care. The study highlighted the need for specialized educational courses in continuing professional development to enhance dental services for cancer patients [11].

Radiation-related caries (RRC) is another significant oral complication that often arises in HNC survivors due to radiotherapy. The lack of awareness regarding RRC can lead to various oral health issues. Unfortunately, RRC is often overlooked by patients, oncologists, and dentists alike, making it one of the "forgotten oral complications" in the context of radiation therapy for head and neck cancers [12].

Study benefits

The results of this research may provide valuable insights for enhancing future approaches to preventing and managing the complications associated with radiotherapy for head and neck cancer.

Study scope

This research primarily concentrated on evaluating the knowledge and clinical practices of dental professionals in Riyadh, Saudi Arabia.

Study hypotheses

It is hypothesized that the level of knowledge and attitudes of dentists toward complications related to radiotherapy is adequate.

Study objectives

- To assess the awareness and clinical practices of Saudi dentists regarding the complications arising from radiotherapy in the head and neck area.
- To analyze the responses of participants based on factors such as gender, professional experience, and job designation.

Materials and Methods

Study approach

This investigation utilized a cross-sectional design, surveying Saudi dental professionals through an online questionnaire.

Study participants

The study involved a sample of 463 dentists from Riyadh City.

Study instrument

The online survey included questions about the participants' demographic information, followed by items assessing their knowledge and attitudes toward complications related to radiotherapy and how to manage them. The survey used only closed-ended questions. Participants were asked to give their consent before proceeding with the questionnaire. Google Forms were used to design and distribute the survey, and all collected data were stored securely and confidentially until needed.

Instrument validity and reliability

To test the reliability of the survey, a pilot study was conducted with 20 participants, and the results were analyzed using SPSS version 22. The reliability coefficient, calculated using Cronbach's alpha, was found to be 0.729. The questionnaire's validity was confirmed by having experienced researchers from REU review it. Modifications were made based on their feedback.

Refer to the CHERRIES checklist (appendix).

Statistical analysis

The data collected were analyzed using SPSS version 22, employing both descriptive and inferential statistical methods. The Chi-square test was used to compare groups, with statistical significance set at a P-value of less than 0.05.

Results and Discussion

The study revealed that nearly equal numbers of male (51.9%) and female (48.1%) participants were involved. Most of the respondents worked as general dentists in the public sector (**Table 1**). A large proportion of participants expressed that an oral assessment should be done before the start of radiotherapy, with the most suitable time for a comprehensive oral evaluation being after the cancer diagnosis. The assessment should include removing teeth that have a poor prognosis, and radiographs should be done 2 weeks following oral surgery. Teeth cleaning or prophylaxis was recommended by most dentists before the radiotherapy. Follow-up care should be provided 3-4 months after treatment, according to most participants. The majority preferred conducting a dental assessment before radiation therapy and advising patients on managing side effects. Most participants were neutral about collaborating with the oncologist regarding cancer patient care, and they showed uncertainty about their confidence in treating oral cancer patients. Gender differences were not found to be statistically significant in further analyses (**Table 2**).

Table 1. Frequencies.

Variable	Frequency percentage
Do you believe oral/dental assessment is necessary before radiotherapy for head and neck cancer patients?	
Yes	92.6%
No	3.7%
I do not know	3.7%
When do you think a comprehensive oral evaluation should be conducted 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, what should be included in the oral/dental assessment and management for head and neck cancer patients?	
Examination of hard and soft tissues	35.2%
Extraction of teeth with poor prognosis	48.1%
Appropriate radiographs (full mouth x-ray, panorama)	11.1%
Extraction of deeply impacted teeth without pathology	4.6%
Fluoride application	0.9%
What is the ideal time to start radiography after oral surgery such as tooth 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%
Should oral prophylaxis (teeth cleaning) be done before radiotherapy?	
Yes	71.3%
No	13.9%
I do not know	14.8%
How often should head and neck cancer patients follow up with a dentist post-radiotherapy?	
3-4 months	77.8%
Once a year	14.8%
Only when needed	7.4%
Do you prefer referring oral cancer patients for pre-radiation therapy dental assessment?	
Strongly agree	72.2%
Agree	18.5%
Neutral	9.3%
Do you feel confident in advising patients on managing chronic complications of their cancer treatment?	
Strongly agree	25.9%
Agree	27.8%
Neutral	34.3%
Disagree	7.4%
Strongly disagree	4.6%
Do you feel confident in advising patients on managing the acute side effects of their cancer treatment?	
Strongly agree	21.3%
Agree	32.4%
Neutral	26.9%
Disagree	13%
Strongly disagree	6.5%
Do you always communicate with a patient's radiation oncologist when assessing patients before radiotherapy?	
Strongly agree	31.5%
Agree	27.8%
Neutral	34.3%
Disagree	2.8%
Strongly disagree	3.7%
Are you interested in attending continuing education courses on managing oral cancer patients?	
Strongly agree	43.5%
Agree	31.5%
Neutral	18.5%
Disagree	3.7%
Strongly disagree	2.8%
Do you feel 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
Do you believe oral/dental assessment is necessary before radiotherapy for head and neck cancer patients?			
Yes	92.9%	92.3%	.365
No	5.3%	1.9%	
I do not know	1.8%	5.8%	
When do you think a comprehensive oral evaluation should be conducted 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, what should be included in the oral/dental assessment and management for head and neck cancer patients?			
Examination of hard and soft tissues	41.1%	28.8%	.257
Extraction of teeth with poor prognosis	39.3%	57.7%	
Appropriate radiographs (full mouth x-ray, panorama)	14.3%	7.7%	
Extraction of deeply impacted teeth without pathology	3.6%	5.8%	
Fluoride application	1.8%	00	
What is the ideal time to start radiography after oral surgery such as tooth 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	
Should oral prophylaxis (teeth cleaning) be done before radiotherapy?			
Yes	66.1%	76.9%	.456
No	16.1%	11.5%	
I do not know	17.9%	11.5%	
How often should head and neck cancer patients 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%	
Do you prefer referring 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%	
Do you feel confident in advising patients on managing 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%	
Do you feel confident in advising patients on managing the 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%	
Do you always communicate with a patient's radiation oncologist when assessing patients before radiotherapy?				
	Strongly agree	28.6%	34.6%	
	Agree	25%	30.8%	
	Neutral	41.1%	26.9%	.458
	Disagree	3.57%	1.9%	
	Strongly disagree	1.9%	5.8%	
Are you interested in attending continuing education courses on managing oral cancer patients?				
	Strongly agree	39.3%	48.1%	
	Agree	33.9%	28.8%	
	Neutral	23.2%	13.5%	.455
	Disagree	1.8%	5.8%	
	Strongly disagree	1.8%	3.8%	
Do you feel confident in treating oral cancer patients?				
	Strongly agree	21.4%	21.1%	
	Agree	26.8%	25%	
	Neutral	37.5%	28.8%	.506
	Disagree	5.4%	15.4%	
	Strongly disagree	8.9%	9.6%	

The study found that both male and female participants predominantly worked as general dentists in government hospitals. They both acknowledged the necessity of oral assessments before radiotherapy, agreeing that the ideal time for such evaluations is after a cancer diagnosis. Regarding management before radiotherapy, males emphasized the importance of examining both soft and hard tissues, while females focused on the extraction of teeth with poor prognosis. For the timing of radiotherapy after oral surgery, both groups indicated that it should ideally be done two weeks later. Additionally, they both recommended performing teeth cleaning before radiotherapy. Post-radiotherapy, both groups believed that follow-up with a dentist should be conducted every 3-4 months, and they were unified in their approach of referring cancer patients for dental evaluations before starting radiation therapy. When asked about advising patients on managing treatment complications, males expressed greater confidence compared to females, with the latter showing mixed feelings, some agreeing while others remained neutral. Females were more likely to communicate with the patient's oncologist, while males showed less involvement. Both groups expressed a strong interest in attending additional training courses. However, when it came to treating oral cancer patients, both male and female dentists maintained a neutral stance.

In the private sector, both general dentists and specialists consider it essential to carry out oral assessments before radiotherapy. For both groups, the optimal timing for a full oral evaluation was immediately following the cancer diagnosis, with the focus being on extracting teeth with poor prognosis. Both groups agreed that the ideal time for starting radiotherapy after oral surgery was two weeks, and they recommended teeth cleaning before radiotherapy. In terms of follow-up care, they both believed 3-4 months was the right duration and referring patients for dental assessments before radiotherapy was a common practice. General dentists felt more assured when advising patients about chronic treatment complications and side effects, while specialists were more neutral in their responses. Specialists were more consistent in communicating with the oncologist, whereas general dentists were less likely to engage in such communication. Both groups were keen on participating in further educational opportunities, though specialists felt more confident in treating oral cancer, while general dentists remained more reserved (Table 3).

Table 3. Comparison across work position

Variable	General dentists	Specialist/ consultant	P-value
Do you believe oral/dental assessment is necessary before radiotherapy for head and neck cancer patients?			
Yes	90.9%	90.3%	

No	6.3%	2.9%	.342
I do not know	2.8%	6.8%	
When do you think a comprehensive oral evaluation should be conducted 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, what should be included in the oral/dental assessment and management for head and neck cancer patients?			
Examination of hard and soft tissues	40.1%	28.8%	
Extraction of teeth with poor prognosis	40.3%	57.7%	
Appropriate radiographs (full mouth x-ray, panorama)	14.3%	7.7%	.342
Extraction of deeply impacted teeth without pathology	3.6%	5.8%	
Fluoride application	1.8%	00	
What is the ideal time to start radiography after oral surgery such as tooth 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	
Should oral prophylaxis (teeth cleaning) be done before radiotherapy?			
Yes	67.1%	77.9%	
No	16.1%	10.5%	.434
I do not know	16.9%	11.5%	
How often should head and neck cancer patients 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%	
Do you prefer referring 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%	
Do you feel confident in advising patients on managing 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%	
Do you feel confident in advising patients on managing the 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%	
Do you always communicate with a patient's radiation oncologist when assessing patients before radiotherapy?			
Strongly agree	28.6%	32.6%	
Agree	24%	31.8%	.456
Neutral	40.1%	26.9%	
Disagree	5.57%	2.9%	

Strongly disagree	1.9%	5.8%	
Are you interested in attending continuing education courses on managing 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%	
Do you feel 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%	

The comparison of responses across different working sectors showed no significant differences. Dentists in both public and private sectors unanimously agree on the importance of performing an oral assessment before radiotherapy, with the ideal timing being post-diagnosis. Both groups emphasized the need for tooth extraction in cases of poor prognosis. For post-oral surgery radiotherapy, the recommended time is two weeks for both groups. Both sectors advocated for teeth cleaning and suggested follow-up appointments every 3-4 months. Additionally, both groups agreed on referring patients for dental evaluations before starting radiotherapy. When it comes to offering guidance on complications and side effects, both sectors expressed neutrality. Both groups also affirmed their commitment to coordinating with the patient's oncologist and showed a shared interest in participating in continuing education related to oral cancer management. There was also agreement across both groups on treating oral cancer patients (**Table 4**).

Table 4. Comparison across the working sector

Variable	Private	Government	P-value
Do you believe oral/dental assessment is necessary 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%	
When do you think a comprehensive oral evaluation should be conducted for head and neck cancer patients?			
After cancer diagnosis	85.1%	94.3%	
During Radiography	10.9%	1.9%	
After radiography	00	1.9%	.056
Only as needed	9.9%	1.8%	
Before radiography, what should be included in the oral/dental assessment and management for head and neck cancer patients?			
Examination of hard and soft tissues	39.1%	28.8%	
Extraction of teeth with poor prognosis	41.3%	55.7%	
Appropriate radiographs (full mouth x-ray, panorama)	10.3%	5.7%	.345
Extraction of deeply impacted teeth without pathology	5.6%	9.8%	
Fluoride application	3.8%	00	
What is the ideal time to start radiography after oral surgery such as tooth 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	
Should oral prophylaxis (teeth cleaning) be done before radiotherapy?			
Yes			
No	65.1%	74.9%	.345

I do not know	18.1%	12.5%	
	16.9%	13.5%	
How often should head and neck cancer patients 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%	
Do you prefer referring 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%	
Do you feel confident in advising patients on managing 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%	
Do you feel confident in advising patients on managing the 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%	
Do you always communicate with a patient's radiation oncologist when assessing patients before radiotherapy?			
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%	
Are you interested in attending continuing education courses on managing 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%	
Do you feel 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%	

This study investigated the level of awareness among dental practitioners regarding the oral and dental effects of radiation therapy in patients diagnosed with head and neck cancer in Saudi Arabia. A cross-sectional survey design was adopted, using simple random sampling to collect data. After confirming the normality and reliability of the responses, SPSS was used for further analysis, and chi-square tests were applied to compare group differences. The survey revealed that male (51.9%) and female (48.1%) participants were almost evenly represented, with a majority working as general dentists in government-run hospitals. Consistent with previous research, the majority of respondents (97%) acknowledged the importance of oral assessments before radiotherapy, and a large

proportion (92%) supported the idea of performing comprehensive dental evaluations for cancer patients undergoing radiation therapy [13].

A prior survey found that 31% of participants believed that the extraction of non-infected, deeply impacted teeth should be part of the dental assessment before radiotherapy. However, many practitioners agree that healthy teeth, even if significantly impacted but without disease, should remain in place. The recommended time for radiographic imaging after oral surgery is typically two weeks. The majority of dentists advocated for teeth cleaning or prophylaxis before radiotherapy, a suggestion that aligns with other studies, which also recommended a two-week waiting period post-surgery before radiotherapy [13].

Regarding post-radiotherapy care, most dentists agreed that follow-up appointments should be scheduled every 3-4 months. Most respondents expressed a preference for referring patients for dental assessments before radiation and offering advice on managing the side effects of treatment. However, a considerable number of participants were neutral about communicating with the patient's oncologist. Moreover, there was widespread interest in engaging in further educational opportunities related to cancer care, although confidence in treating oral cancer patients remained neutral among many participants.

Gender differences revealed that both male and female dentists, primarily in government hospitals, acknowledged the necessity of oral assessments before radiotherapy, with the optimal time being immediately after cancer diagnosis. Male participants emphasized the need for a comprehensive evaluation of hard and soft tissues, while females focused on the extraction of teeth with poor prognostic outcomes. The timing for radiotherapy post-oral surgery was generally agreed upon as two weeks for both genders, and both groups recommended teeth cleaning before initiating radiotherapy. Follow-up care was also deemed necessary every 3-4 months by both male and female dentists, a suggestion that aligned with previous studies, although male dentists favored this more than their female counterparts. Both groups recommended referring patients for dental evaluations before radiation therapy.

When it came to offering advice on managing cancer-related complications and side effects, males expressed more confidence, while females showed a more neutral stance. Female dentists were also more likely to communicate directly with their patients' oncologists, whereas male dentists expressed neutrality. Both groups showed interest in attending additional professional development courses. Notably, specialists and general dentists working in the private sector demonstrated more confidence and knowledge than those in public sector positions or universities [13].

Regarding the work sector, dentists in both public and private sectors agreed that oral assessments before radiotherapy were necessary, with the ideal time for these evaluations being immediately after diagnosis. Extraction of teeth with poor prognosis was also recommended, and the optimal time for radiotherapy post-surgery was set at two weeks, with teeth cleaning being encouraged beforehand. Both groups advocated for regular follow-up care every 3-4 months, as well as referring patients for pre-radiation oral assessments. Confidence in offering guidance on side effects and complications was evident among general dentists, while specialists remained neutral on this matter. Specialists also consistently communicated with the patient's oncologist, a practice not always followed by general dentists. Both groups expressed a shared interest in continuing education, with specialists showing more confidence in managing oral cancer cases compared to general dentists [13, 14].

Limitations

The current study utilized an online self-reported questionnaire, which introduces potential concerns about its reliability and internal validity. These concerns include the impact of social desirability biases and the relatively small sample size, which may affect the generalizability of the findings.

Conclusion

This study concluded that a majority of dentists believe that oral evaluations are essential before radiotherapy, with the optimal timing for this assessment being immediately after the diagnosis. The evaluation should involve the extraction of teeth with a poor prognosis. Furthermore, radiotherapy should commence only 3-4 months following oral surgery. While teeth cleaning was commonly recommended, a significant number of dentists expressed uncertainty or lack of confidence in treating patients with oral cancer.

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