

## **An Investigation of Patient Perceptions and Experiences of Thermoplastic Mask Use in Radiotherapy Treatment for Head and Neck Cancers**

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Patients with head and neck cancer undergoing radiotherapy need effective immobilization typically achieved through the use of a thermoplastic mask. The aim of this study was to investigate the patient perceptions and experiences of thermoplastic mask use in radiotherapy treatment for head and neck cancers. This study utilized qualitative methods, including face-to-face interviews, to gather data from head and neck cancer (HNC) patients undergoing radiotherapy treatment. Patients were given a questionnaire to express their experiences freely regarding the use of thermoplastic masks. The research focused on HNC patients receiving external beam radiotherapy, spanning from CT simulation to treatment sessions in the Department of Radiotherapy at Apeksha Hospital, Maharagama, Sri Lanka. Thematic analysis and chi-square tests were employed for data analysis. Patients (150) faced to interviews and six themes were identified: communication clarity and effectiveness, therapist attitude and empathy, patient comfort and well-being, therapist-patient relationship, patient engagement and participation, personalized care, and guidance. The study used chi-square tests to explore the link between demographic factors and patients' perceptions of thermoplastic masks during radiotherapy. Patients had varied experiences, with some feeling anxiety and discomfort while others found the treatment more tolerable over time. The research suggests that enhancing patient awareness, providing clear explanations, and adopting a patient-centered approach can improve the overall experience, outcomes, and quality of care in head and neck cancer radiotherapy.

**Keywords:** *head and neck cancer, radiotherapy, thermoplastic mask, patient comfort during immobilization*