Innovations

Knowledge, attitude and perception on OPMD among oral medicine specialists

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Abstract:

Background: *Oral potentially malignant disorders are common oral mucosal lesions associated with tobacco habit mainly and few congenital, immunologically mediated mucocutaneous disorders with increased risk for malignant transformation diseases.* ***Aim:*** *The aim of this questionnaire study is to assess the awareness of evidence based medical management of OPMDs among oral medicine specialists in a university setting. The questionnaire based study was conducted among 100 participants. A self administered questionnaire was used. Sampling was done by convenient sampling. The study was done in a university setting. The questionnaires were distributed to the post graduates and teaching faculties with varied teaching experience in Oral medicine speciality. It was circulated using an online search software, google form and the response was collected through it.* ***Conclusion :****The collected data was ranked as good ,average and below average and the data collected were stored and results were analysed by SPSS software. Out of 100, The need of educational programs exclusively on topical therapeutics in management of oral mucosal lesions to be initiated from the beginning of post graduation course and educational programs on current updates of topical therapeutics is essential for Oral Medicine Specialist to ensure proper treatment protocol in dental practice.*

Keywords :1.*oral potentially malignant disorders, 2.mucocutaneous, 3.oral cancer ,4.awareness*

Introduction:

Oral potentially malignant disorders [OPMD] are oral mucosal lesions with increased risk for progression to cancer (Aghbali et al., 2012). Precancerous lesions and precancerous conditions were old nomenclature and current acceptable nomenclature since 2005 proposed by WHO is oral potentially malignant disorders (Baabae et al., 2013). Potentially premalignant epithelial precursor lesions[PPOEL] is the recently proposed nomenclature yet to be commonly preached among Oral Medicine specialists(Fädler et al., 2015; Gupta et al., 2017; NíRíordáin et al., 2015). The diagnosis ,investigations and management of oral potentially malignant disorders are subjected to different expert opinions though evidence based management insists on histopathological examination of all OPMDs(Ferlay et al., 2015). Topical application of medication allows the direct action of the drug onto the oral-mucosal lesion, thus increasing its therapeutic effectiveness(Hassona et al., 2017). Topical drug administration is one among the various routes of drug administration and recent research focus is on targeted drug delivery to effectively manage oral mucosal lesions by improvising drug adherence and availability in the affected site (Subramaniam &Muthukrishnan, 2019; Taheri et al., 2018).

Oral potentially malignant disorders though common in the general population are mostly reported and managed in the Department of Oral Medicine by oral medicine postgraduates and teaching faculties in an University setting. Many researchers in Oral Medicine Speciality are focusing on the newer drug formulations in preventing malignant transformations(Hughes & Ghosh, 2015; Razavi et al., 2013)

Previously our team has a rich experience in working on various research projects across multiple disciplines((Abdul Wahab et al., 2017; Eapen et al., 2017; Ezhilarasan et al., 2018; Jeevanandan&Govindaraju, 2018; MalliSureshbabu et al., 2019; Manivannan et al., 2017; Mehta et al., 2019; Neelakantan et al., 2015; Patil et al., 2017; Rajeshkumar et al., 2019; Ramamoorthi et al., 2015; Ravindiran&Praveenkumar, 2018; Samuel et al., 2020; Sathish & Karthick, 2020; Wahab et al., 2018)

The aim of this questionnaire study was to assess the awareness of current proposals and evidence based treatment protocol of oral potentially malignant disorders among Oral Medicine specialists.

Materials and methods:

The setting was an online University setting. Ethical approval was obtained from the institution's ethical committee. The number of people involved in this study includes a guide, two reviewers and one principal investigator. A structured self assessed online questionnaire having 15 questions on medical management of oral potentially malignant disorders was prepared with the aim to assess the awareness of proper treatment protocol in management of oral potentially malignant disorders among oral medicine specialists in a university setting. Sampling was done by convenient sampling.

The study was done in a university setting. Inclusion criteria of the study includes dental postgraduates (1st, 2nd and 3rd year) and the teaching staff with experience less than 5 years , 5-10 years and more than 10 years.. Exclusion criteria includes dental undergraduates students with and without clinical exposure. The questionnaire was validated with two reviewers who were experts in the field of oral medicine before distributing to the oral medicine specialists. The questionnaires were distributed to the postgraduates and teaching staff with experience less than 5 years, 5-10 years, and more than 10 years. It was circulated using an online search software, google form and the response was collected through it.

The collected data on awareness was ranked as good ,average and below average and was tabulated.The Collected data was recorded in the Microsoft Excel 2016 and later exported to the Statistical package of Social Science for Windows Statistical analysis was done using SPSS software. (Version 20.0, SPSS Inc., Chicago,

Illinois, USA). Frequency distribution of each response among undergraduate dental students such as postgraduates and faculty with varied teaching experience was analysed. Chi-square association using Pearson correlation was done to determine the statistical significant association between year of study among postgraduates and years of experience among faculties and the responses for each question.

Results and discussion

The study was conducted with total of 100 participants . In Figure 1 the pie chart represents that 42% of participants have seen 0-5 cases of OPMD (blue colour), 40% of participants have seen 5-10 OPMD cases and 18% of the participants have seen more than 10 OPMD cases(VosoughHoseini et al., 2013). When participants were asked whether they were aware of lichenoid lesions 80% of participants were aware of it and 20% of them were not aware of the lichenoid lesions [Figure 2]. The study results showed that 41% of the participants responded to smoking as cause of OPMD and 59% responded to chewing of pan as cause of OPMD[[figure 3]. For the question 'which of the OPMD is considered to have the highest transformation rate?', about 43% responded with OSMF and 40% responded as leukoplakia and 17% responded as erosive lichen planus [figure 4]. In figure 5, the pie chart represents the responses of participants for the question When do you subject all OPMD cases for histopathological examination?', where 47% of participants subjects the OPMD cases to histopathological examination after all the cases have been diagnosed clinically, 9%of participants subjects the OPMD cases to histopathological examination if patient agrees to it and 44% responded that they would subject suspicious OPMD cases to histopathological examination. In figure 6 , 31% of the participants suggest medical management for OPMD when there is no dysplasia, 50% when there is no to mild dysplasia and 19% when there is moderate dysplasia. In figure 7 , the pie chart represents that 69% would recommend lycopene as medical management for OPMD, 20% recommends betacarotene as medical management for OPMD and 11% curcumin as medical management for OPMD. Figure 8 represents that 36% of participants would recall their patients every 10 days, 28% of participants would recall their patients in 2 weeks and 36% of participants would recall patients in one month. In figure 9, the pie chart represents that around 78% of participants have encountered the recurrence of OPMD after medical management and 22% of them have not encountered the recurrence of OPMD after medical management. The figure 10 represents that 88% of participants have seen improvement in OPMDs after medical management and 12% of participants have not seen improvement in OPMDs after medical management. The figure 11 represents that 85% of participants agreed that they know the treatment modalities for management of OPMD apart from medical management . 22% of participants agreed that they don't know the treatment modalities for management of OPMD apart from medical management. The figure 12 represents that 88% of participants agreed that they know about the diagnostic tools for early dysplastic diagnosis of OPMD apart from histopathology. 12% of participants agreed that they don't know about the diagnostic tools for early dysplastic diagnosis of OPMD apart from histopathology. The figure 13 represents that 72% of participants were aware that there was conclusive evidence of anti-tobacco counseling impact on management of OPMD. 28% of participants were not aware that there was conclusive evidence of anti-tobacco counseling impact on management of OPMD. The figure 14 represents that 57% of participants were aware that there was conclusive evidence in literature review for the effective management of OPMD cases. 43% of participants were not aware that there was conclusive evidence in literature review for the effective management of OPMD cases. The figure 15 represents that 77% of participants were aware of side effects due to medical management of OPMD. 23% of participants were not aware of side effects due to medical management of OPMD (Lodi et al., 2016; M et al., 2013; Tilakaratne et al., 2016)

Our institution is passionate about high quality evidence based research and has excelled in various fields (Ezhilarasan et al., 2019; Mathew et al., 2020; Pc et al., 2018; Ramadurai et al., 2019; Ramesh et al., 2018; Sridharan et al., 2019; Vijayashree Priyadharsini, 2019). We hope this study adds to this rich legacy.

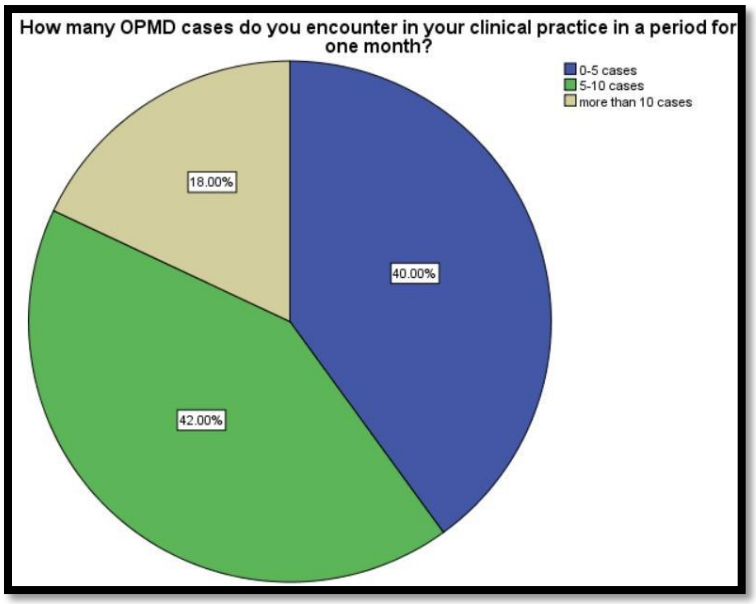

Figure 1: Pie chart showing the responses to the question: "How many OPMD cases do you encounter in your clinical practice in a period for one month ? 40% of participants have seen 0-5 OPMD cases (blue), 40% of participants have seen 5-10 OPMD cases (green) and 18% of the participants have seen more than 10 OPMD cases (beige).

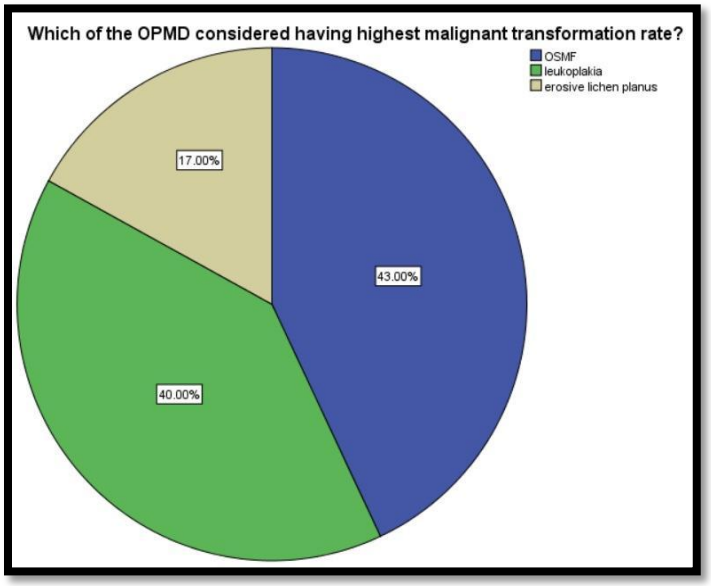

Figure 2: Pie chart showing the responses to the question: "Which of the OPMD considered having the highest malignant transformation rate? 43% of participants reported that OSMF had been considered to have the highest malignant transformation rate (blue). 40% of participants reported leukoplakia (green) and 17% of participants reported erosive lichen planus (beige).

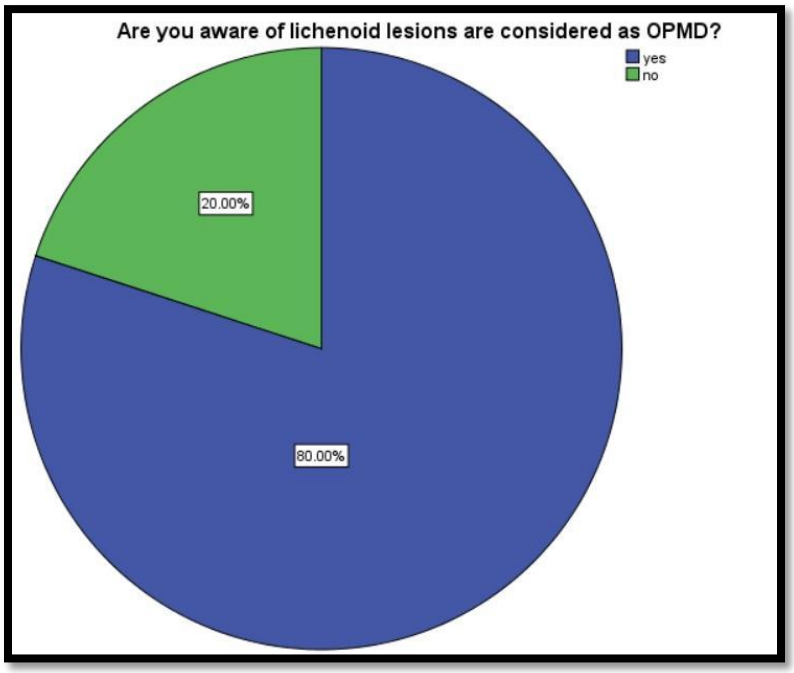

Figure 3: Pie chart showing the responses to the question: "Are you aware that lichenoid lesions are considered as OPMD? 80% of participants are aware that lichenoid lesions are considered as OPMD (blue). 20% of participants not aware about lichenoid lesions were considered as OPMD (green).

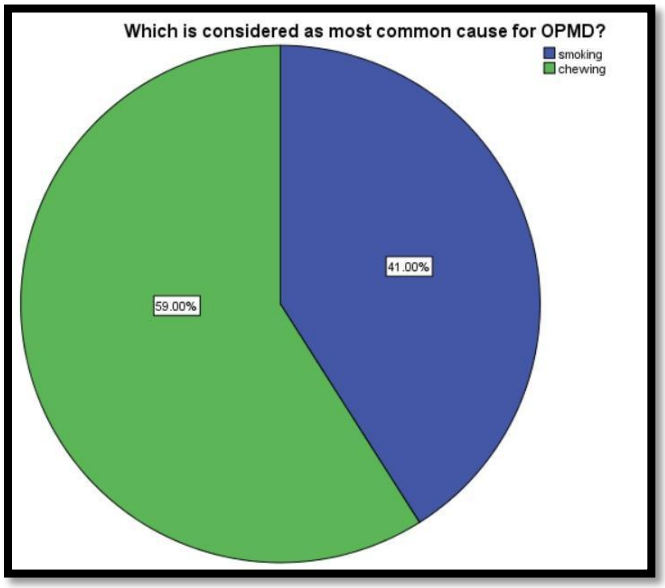

Figure 4: Pie chart showing the responses to the question: "Which is considered as the most common cause for OPMD? 59% of participants reported that the most common cause for OPMD was chewing (green). 41% of participants reported that the most common cause for OPMD was smoking (blue).

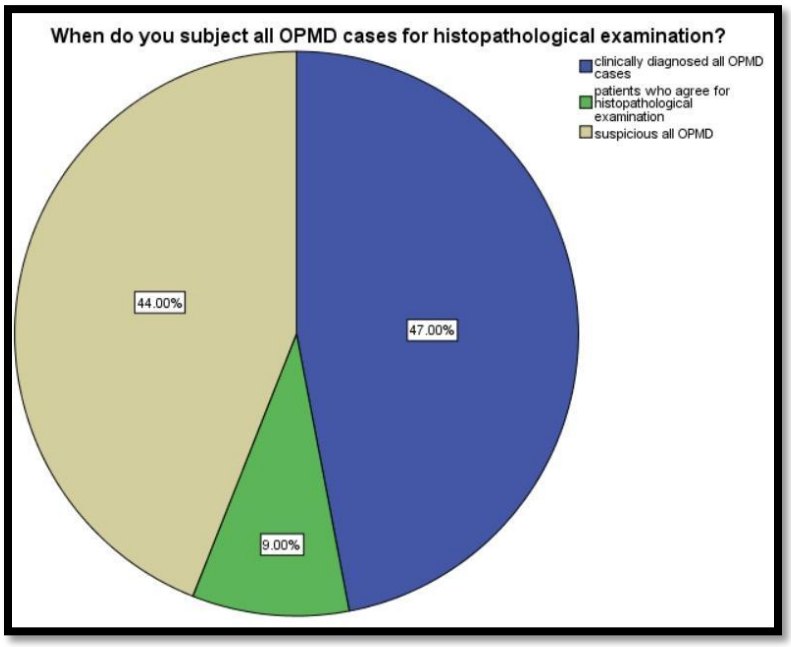

Figure 5: Pie chart showing the responses to the question: "When do you subject all OPMD cases for histopathological examination? 47% of participants reported clinically diagnosed all OPMD (blue). 44% of participants reported patients who agree for histopathological examination. 9% of participants reported suspicious all OPMD (beige).

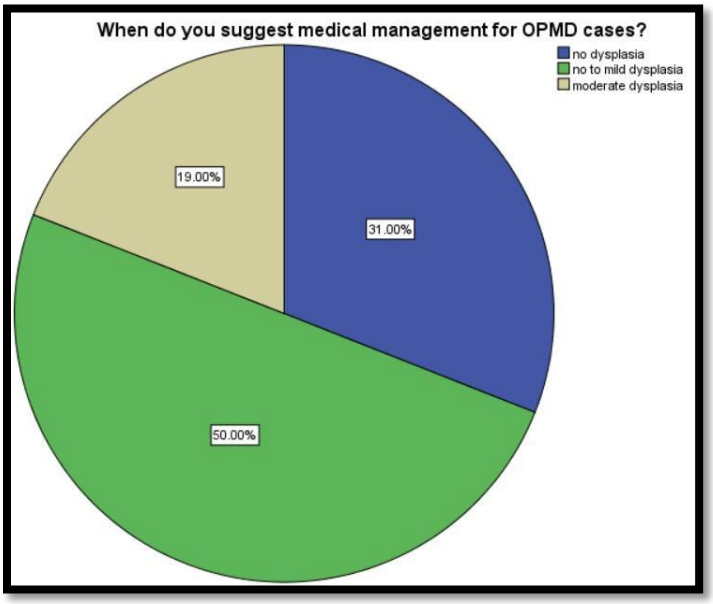

Figure :6 Pie chart showing the responses to the question: "When do you suggest medical management for OPMD cases? 50% of participants reported no to mild dysplasia (green). 31% of participants reported no dysplasia (blue), 19% of participants reported moderate dysplasia (beige).

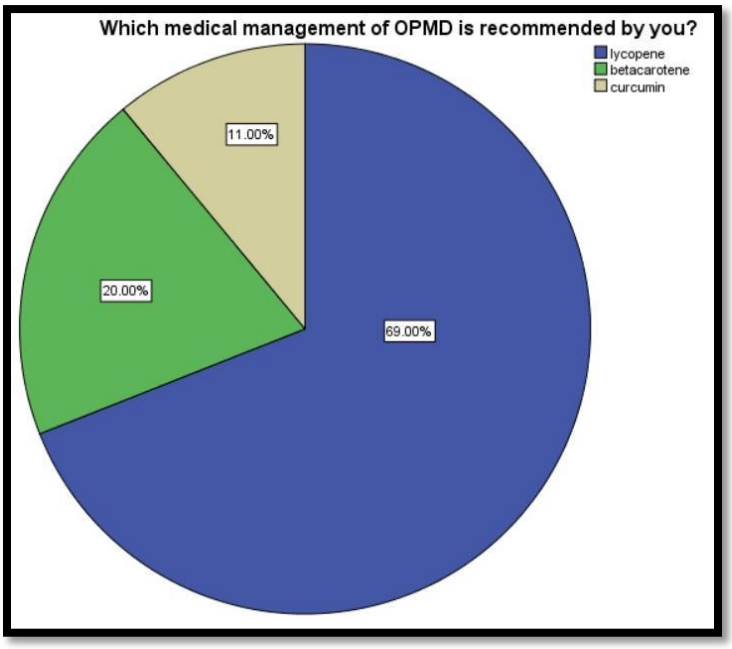

Figure 7: Pie chart showing the responses to the question: "Which medical management of OPMD is recommended by you? 69% of participants reported lycopene (blue). 20% of participants reported beta carotene (green), 11% of participants reported curcumin (beige).

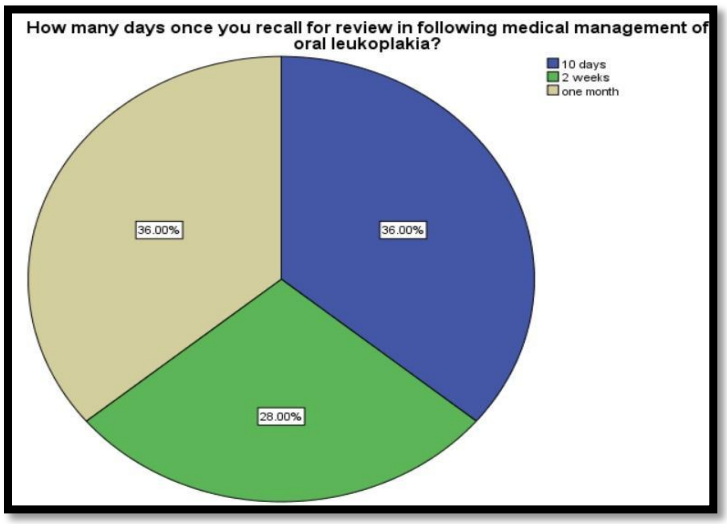

Figure 8: Pie chart showing the responses to the question: "How many days once you recall for review following medical management of oral leukoplakia? 36% of participants reported 10 days (blue) and one month (beige). 28% of participants reported two weeks (green).

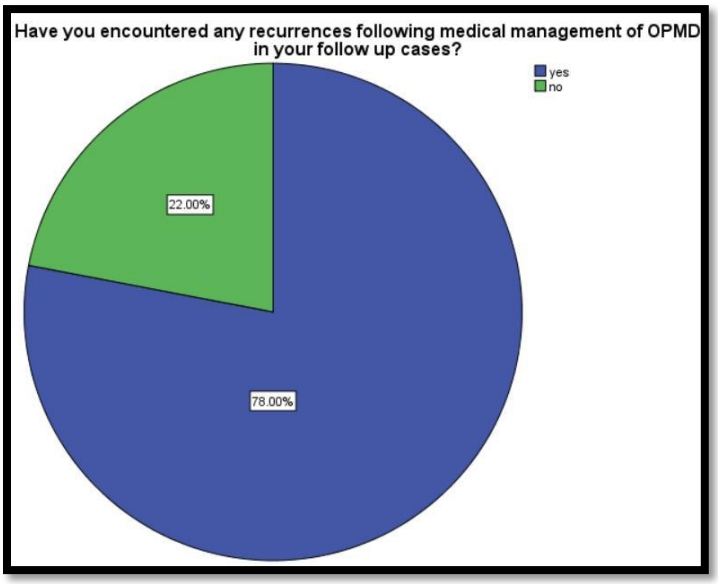

Figure :9ie chart showing the responses to the question:Have you encountered any recurrences following medical management of OPMD in your follow up cases? 78% of participants reported that they had encountered the recurrence of OPMD after medical management (blue). 22% of participants reported that they had not encountered the recurrence of OPMD after medical management (green).

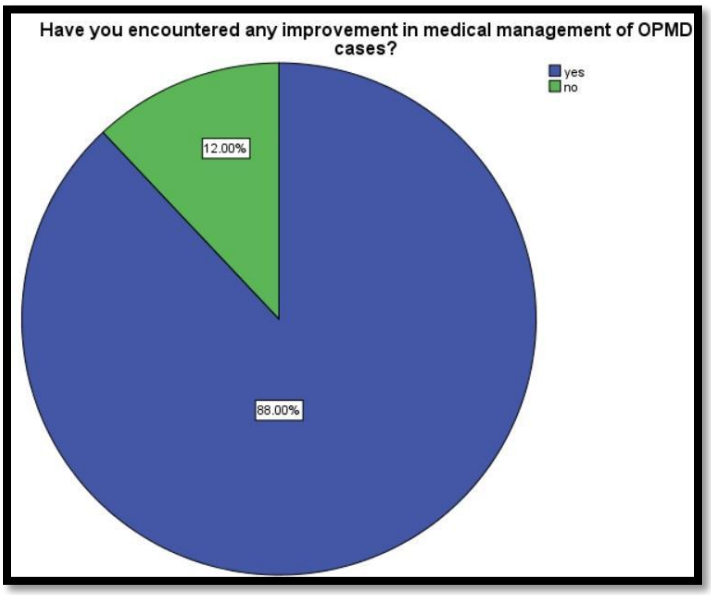

Figure 10: Pie chart showing the responses to the question:Have you encountered any improvement in medical management of OPMD cases? 88% of participants reported that they had encountered the recurrence of OPMD after medical management (blue). 22% of participants reported that they had not encountered the recurrence of OPMD after medical management (green).

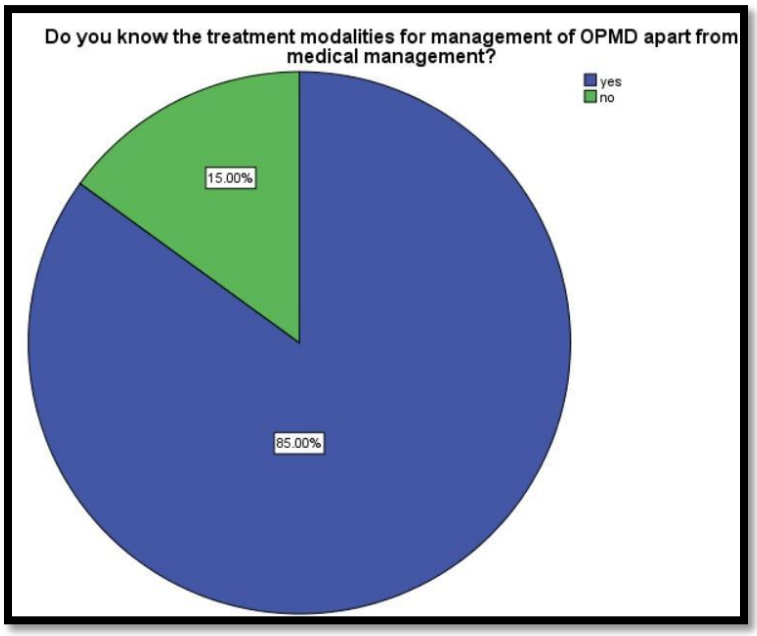

Figure 11: Pie chart showing the responses to the question: Do you know the treatment modalities for management of OPMD apart from medical management?85% of participants agreed that they know the treatment modalities for management of OPMD apart from medical management (blue). 22% of participants agreed that they don't know the treatment modalities for management of OPMD apart from medical management (green).

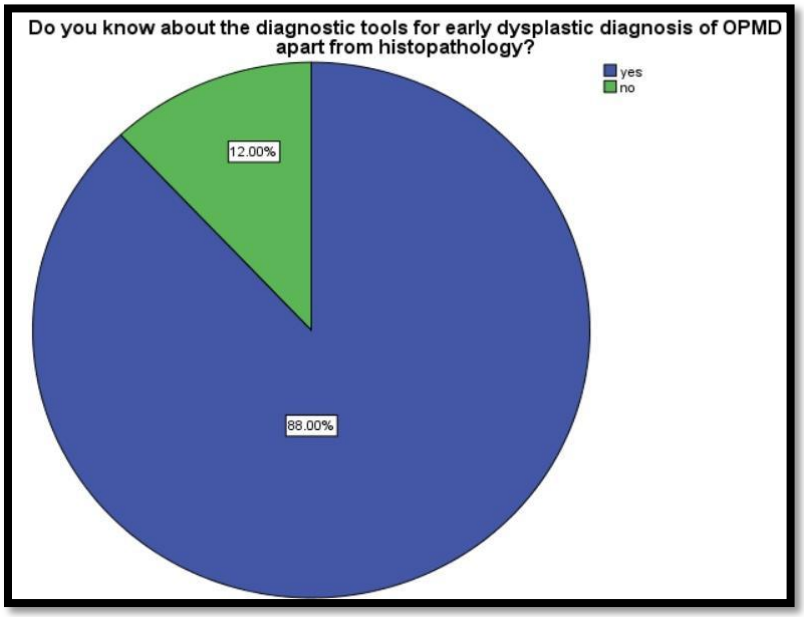

Figure 12: Pie chart showing the responses to the question: Do you know about the diagnostic tools for early dysplastic diagnosis of OPMD apart from histopathology?88% of participants agreed that they know about the diagnostic tools for early dysplastic diagnosis of OPMD apart from histopathology (blue).12% of participants agreed that they don't know about the diagnostic tools for early dysplastic diagnosis of OPMD apart from histopathology (green).

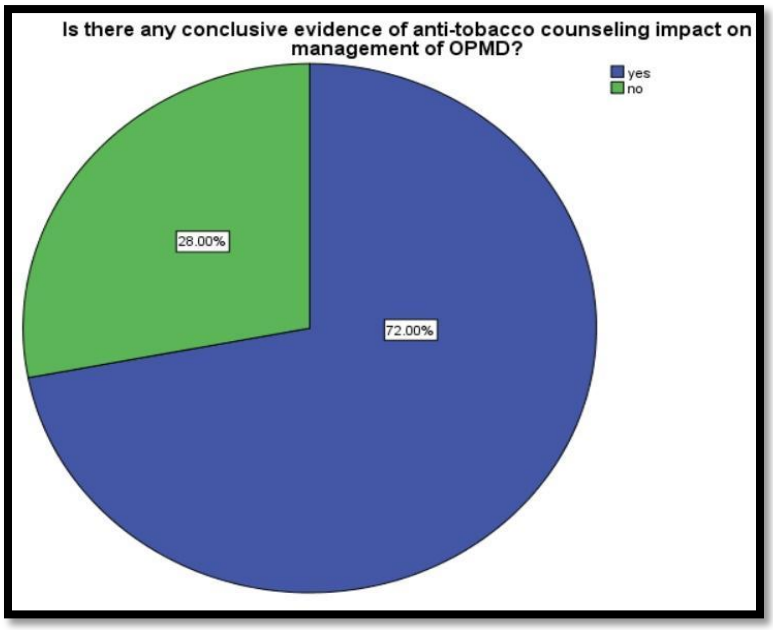

Figure 13: Pie chart showing the responses to the question: Is there any conclusive evidence of anti-tobacco counseling impact on management of OPMD? 72% of participants were aware that there was conclusive evidence of anti-tobacco counseling impact on management of OPMD (blue). 28% of participants were not aware that there was conclusive evidence of anti-tobacco counseling impact on management of OPMD (green).

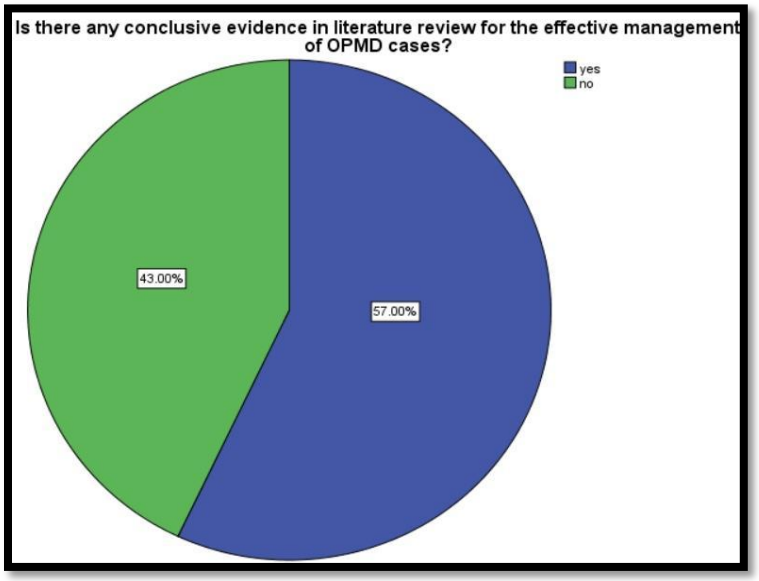

Figure 14: Pie chart showing the responses to the question: Is there any conclusive literature review for the effective management of OPMD cases? 57% of participants were aware that there was conclusive evidence in literature review for the effective management of OPMD cases (blue). 43% of participants were not aware that there was conclusive evidence in literature review for the effective management of OPMD cases (green).

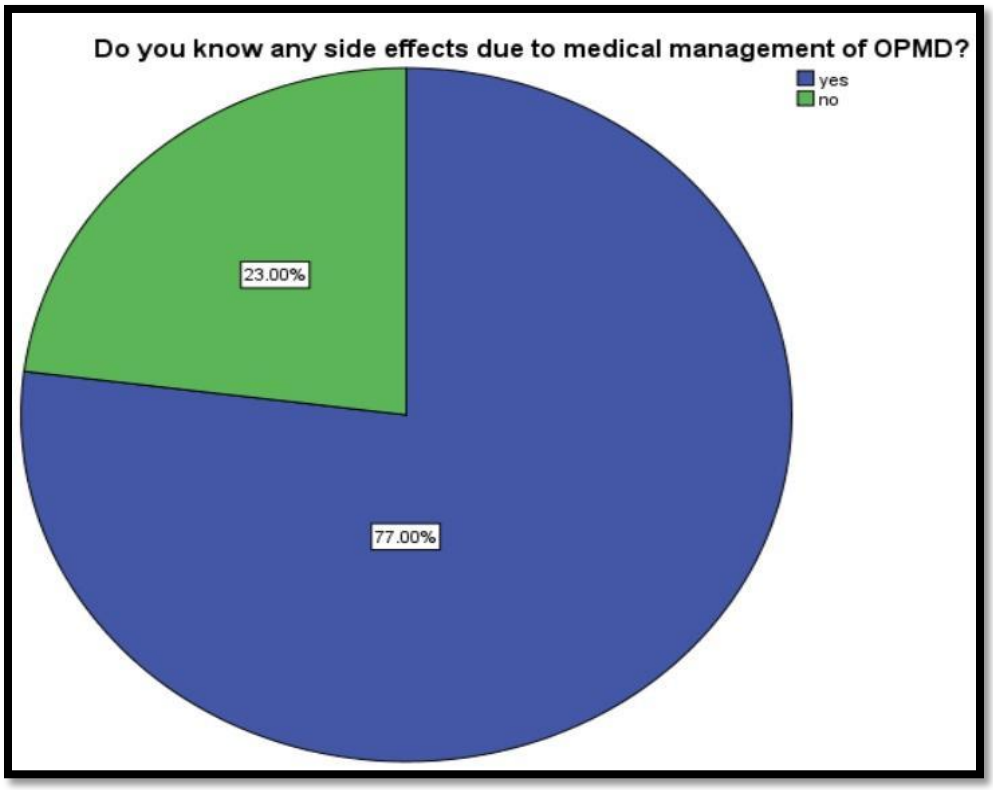

Figure 15: Pie chart showing the responses to the question: Do you know any side effects due to medical management of OPMD? 77% of participants were aware of side effects due to medical management of OPMD (blue). 23% of participants were not aware of side effects due to medical management of OPMD (green).

Conclusion

The results of the questionnaire study on OPMD among oral medicine specialist including post graduates of all three years and faculties with varied teaching experience such as below five years, 5-10 years and more than 10 years reported that 40% of participants have seen 0-5 OPMD cases , 40% of participants have seen 5-10 OPMD cases and 18% of the participants have seen more than 10 OPMD cases in their clinical practice in a period for one month.

Majority of participants reported that the chewing were considered as the most common cause of OPMD and faculties with teaching experience more than 10 years were more aware with p -value = 0.00 < 0.05 which was statistically significant The study results have also proved that module based learning on exclusive specialty related cases with more clinical exposure of diagnosis and management of OPMD is essential in the beginning of post graduation to improve the knowledge of recent trends and evidence based management protocol of OPMD among post graduates.

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