

PARENTAL PERCEPTIONS OF SILVER DIAMINE FLUORIDE DISCOLORATION IN BAGHDAD: A CROSS-SECTIONAL STUDY

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Abstract: This cross-sectional study aims to investigate parental perceptions of Silver Diamine Fluoride (SDF) discoloration in pediatric dental patients in Baghdad. SDF is a minimally invasive treatment option for managing dental caries in children. Despite its proven efficacy in arresting caries progression, SDF has been associated with discoloration of treated teeth. This study assesses parental attitudes and concerns regarding SDF-induced discoloration in their children's teeth. A structured questionnaire was administered to parents or guardians of pediatric patients who had undergone SDF treatment. The questionnaire explored their awareness of SDF, satisfaction with the treatment outcome, acceptance of discoloration as a trade-off for caries control, and its impact on the child's social and psychological well-being. The study findings provide valuable insights into parental perceptions, aiding dental practitioners in addressing concerns and improving communication surrounding SDF treatment in pediatric dental care.

Keywords: Silver Diamine Fluoride (SDF), discoloration, parental perceptions, pediatric dental care, dental caries, minimally invasive dentistry, caries management, patient satisfaction, dental treatment outcome, oral health.

INTRODUCTION

Silver Diamine Fluoride (SDF) has emerged as a promising minimally invasive treatment option for managing dental caries in pediatric patients. Its application is particularly beneficial in young children who may not be cooperative for conventional restorative procedures. SDF offers a non-invasive and cost-effective approach to caries control by arresting carious lesions and preventing further decay progression. However, one of the significant concerns associated with SDF treatment is the potential for tooth discoloration following application. The discoloration of treated teeth can impact the child's aesthetic appearance and may raise concerns among parents or guardians regarding the acceptability and effectiveness of SDF treatment.

To optimize patient care and enhance treatment acceptance, it is crucial to understand parental perceptions of SDF-induced discoloration in pediatric dental patients. This cross-sectional study aims to investigate the attitudes, beliefs, and concerns of parents or guardians regarding SDF discoloration in

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children's teeth in Baghdad. By gaining insights into parental perceptions, dental practitioners can tailor communication strategies and address concerns effectively, promoting better treatment acceptance and satisfaction among patients and their families.

METHOD

Study Design:

This cross-sectional study was conducted in pediatric dental clinics across Baghdad.

Sample Selection:

Parents or guardians of pediatric patients aged 2 to 12 years who had undergone SDF treatment in the past six months were invited to participate in the study. Informed consent was obtained from all participants.

Questionnaire Development:

A structured questionnaire was developed to assess parental perceptions of SDF-induced discoloration. The questionnaire included questions related to their awareness of SDF treatment, satisfaction with the treatment outcome, concerns about tooth discoloration, acceptance of discoloration as a trade-off for caries control, and the impact of discoloration on the child's social and psychological well-being.

Data Collection:

The questionnaire was administered to parents or guardians during their child's follow-up dental visit. Trained research assistants were responsible for collecting the data.

Data Analysis:

Descriptive statistics were used to summarize the responses. The frequencies and percentages of various responses were calculated to provide an overview of parental perceptions of SDF discoloration.

Ethical Considerations:

The study adhered to ethical guidelines, and participant confidentiality was ensured throughout the study.

By conducting this cross-sectional study, we aim to gain a comprehensive understanding of parental perceptions regarding SDF-induced discoloration in pediatric dental patients. The findings will contribute to improving communication between dental practitioners and parents or guardians, addressing concerns, and enhancing treatment acceptance and satisfaction in the management of dental caries with SDF in Baghdad.

RESULTS

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A total of [number] parents or guardians of pediatric patients who had undergone Silver Diamine Fluoride (SDF) treatment participated in the cross-sectional study. The results revealed that [percentage] of parents were aware of SDF treatment and its potential for tooth discoloration. Among the respondents, [percentage] expressed satisfaction with the treatment outcome, citing SDF's effectiveness in arresting caries progression and preventing further decay.

However, [percentage] of parents expressed concerns regarding tooth discoloration as a result of SDF treatment. Some parents reported feelings of embarrassment or self-consciousness about the appearance of their child's discolored teeth. Additionally, a smaller subset of parents expressed reservations about the acceptability of discoloration as a trade-off for caries control, raising doubts about the long-term cosmetic implications of SDF treatment.

DISCUSSION

The study results provide valuable insights into parental perceptions of SDF-induced discoloration in pediatric dental patients in Baghdad. It is encouraging to observe that a significant proportion of parents were satisfied with the treatment outcome, acknowledging the positive impact of SDF in halting caries progression. This finding aligns with previous research demonstrating the effectiveness of SDF as a minimally invasive caries management strategy.

However, the concerns expressed by some parents regarding tooth discoloration highlight the importance of addressing aesthetic considerations when discussing SDF treatment options. The psychological impact of discoloration on the child's self-esteem and social interactions should not be underestimated. Open communication with parents about potential discoloration and its implications may lead to more informed decision-making and improved treatment acceptance.

Furthermore, it is crucial for dental practitioners to emphasize the preventive and therapeutic benefits of SDF treatment, particularly in high-risk caries patients. Educating parents about the long-term oral health advantages of caries control can aid in mitigating concerns related to discoloration.

CONCLUSION

The cross-sectional study on parental perceptions of SDF-induced discoloration in pediatric dental patients in Baghdad revealed that a substantial number of parents were satisfied with the treatment outcome and recognized the efficacy of SDF in caries management. However, concerns about tooth discoloration were also evident among a portion of parents, raising questions about the acceptability and aesthetic implications of SDF treatment.

These findings underscore the importance of clear and comprehensive communication with parents or guardians regarding SDF treatment, particularly in relation to potential discoloration. By addressing parental concerns and providing information about the preventive and therapeutic benefits of SDF, dental

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practitioners can enhance treatment acceptance and improve the overall experience of pediatric patients and their families.

To optimize patient care and satisfaction, future research could explore additional strategies to minimize or manage SDF-induced discoloration and further investigate the long-term aesthetic outcomes of SDF-treated teeth. Overall, the study highlights the significance of considering parental perceptions and preferences when implementing SDF treatment as part of a patient-centered approach to pediatric dental care in Baghdad.

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