

ORAL AND DENTAL HEALTH KNOWLEDGE AND ATTITUDES AMONG OBSTETRICIANS: A CROSS-SECTIONAL SURVEY

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ABSTRACT

Objective: To determine the oral and dental health knowledge and attitudes among Jordanian obstetricians.

Methodology: A cross-sectional study was performed on Jordanian obstetricians who participated in three conferences held in Amman, from August 2016 to May 2017. A specific questionnaire was used probing socio-demographic characteristics, knowledge on selected oral health issues and attitudes toward continued medical education on oral health. A total of 721 questionnaires were analysed using SPSS version 20 for Windows.

Results: The respondents were 69% female, with a median age of 45.3 years. None of the responding obstetricians had attended a special course regarding oral health and only 0.4% had attended lectures related to oral health. A total of 96 (13.3%) obstetricians had read at least one scientific article related to oral and dental health in the last 5 years. The average oral health knowledge score was 44%, average knowledge score for obstetrics-related dentistry was 47% and dentistry related to systemic diseases was 57%. The average overall knowledge score was 49%. Regarding attitude towards oral health, only 37% of obstetricians agreed that oral health care is a high priority during pregnancy, while only 23% considered that treatment of dental disease during pregnancy would affect obstetrical outcomes and considered referring their patients to a dentist for treatment during pregnancy.

Conclusion: Data from this study demonstrated decreased knowledge of oral and dental diseases among practicing obstetricians. Their attitudes toward oral health and dental care were poor reflecting one of the causes for their deficient knowledge.

Key Words: Oral health, Dental diseases, Attitude, Obstetricians

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INTRODUCTION

Oral diseases have been associated with many obstetrical and infertility conditions including pre-term birth, pre-eclampsia, "small-for-gestational-age" infants and even delays in achieving pregnancy¹⁻⁴. On the other hand, pregnancy itself may lead to oral cavity problems including gingivitis and periodontal diseases^{5,6}. Obstetricians' knowledge and attitudes toward oral health diseases and management affect the way that they address the adverse effects of dental disease on the health of women and infants. Improving these factors will lead to improved outcomes and enhanced oral health care during pregnancy⁷⁻¹⁰.

Few studies have investigated this knowledge base, especially among obstetricians practicing in developing countries¹¹⁻¹³ where oral health care is not among

the health policy priorities^{8-10,14}. There is clear relationship between good oral health during pregnancy and favorable obstetrical outcomes^{2,6,7}. Early detection of dental diseases in pregnancy and subsequent referral to a dentist can contribute to reduction in pregnancy related complications¹⁵⁻¹⁷. In addition, there may be a possible reduction in the risk of early childhood caries^{9,10}. This dictates the need for preventive, routine and emergency dental care and referral in addition to pregnancy-specific counselling and oral health education^{14,18,19}. There is substantial evidence from all around the globe that more than 50% of pregnant women do not receive or ask for dental treatment during pregnancy even though they are reporting oral health issues²⁰⁻²³. Among the Jordanian population, knowledge about the possible link between dental disease and pregnancy depends on the educational level, although generally it is low (7.5%-41.3%)²⁴. Although many factors might

contribute to the acceptance and utilization of dental health care by pregnant women, poorly informed or unprepared obstetricians often act as the main barrier to a proper referral to dental care services for pregnant women²⁵⁻²⁷.

Our survey aimed to assess the oral health knowledge (depth and pitfalls) and attitudes among Jordanian obstetricians and their willingness to pursue further education or training in this field. To our knowledge, this is the first survey to assess this information.

METHODOLOGY

A cross-sectional study was performed on Jordanian obstetricians who participated in three conferences held in Amman, from August 2016 to May 2017. These conferences attract obstetricians practicing in Jordan with an average of 400 delegates in each conference. The survey was voluntary and responses were anonymous. Ethical approval was sought from the ethical committee of the Jordan Medical Association in Jordan.

The survey was conducted using a questionnaire probing specific socio-demographic characteristics, as well as knowledge and attitudes of selected oral health issues. It assessed two domains. The first was oral and dental health knowledge; and the second examined obstetricians' attitudes toward the subjects of oral and dental health. The questionnaire was distributed within the bags of the conference attendees and the research team was available at a designated desk to clarify any questions arising regarding the questionnaire and to collect the completed questionnaires. The questionnaire used in the study was developed based on previously validated surveys with minor modifications. The questionnaire was assessed for content validity by experts in dental public health for relevance and clarity. The internal consistency was tested using Cronbach's Alpha (CA) which was 0.8.

The questionnaire was divided into 4 sections. The first section included demographic information-related questions (2 questions). The second section addressed oral health knowledge resources (4 questions), including questions on whether the respondents had attended any special oral health courses, whether any of the conferences attended by the respondents included lectures about oral health issues and whether he or she ever read special articles on oral and dental health issues. The third section tested oral health knowledge (8 questions), obstetrics-related dentistry questions (12 questions) and dentistry-related systemic disease questions (10 questions). The fourth section asked about personal attitudes concerning the priority and importance of oral health knowledge for an obstetrician's career (4 questions). Personal attitudes concerning oral health care and willingness to learn were measured on

a 5-point Likert scale with response alternatives ranging from "strongly agree" to "strongly disagree" and including "do not know." Knowledge questions were multiple choice questions.

To obtain genuine responses, the anonymity of the respondents was ensured. We dichotomized answers to the knowledge and attitude questions with a score of one for correct/willing/positive answers; and 0 for false/unwilling/negative and do not know answers. Statistical analysis was performed using SPSS version 20 for Windows (SPSS Inc., Chicago, IL, USA).

RESULTS

A total of 1247 delegates attended the three conferences. The response rate was 74%, with 923 obstetricians completing the questionnaire. However, 179 obstetricians filled out the questionnaire twice at a subsequent conference and 23 were practising outside of Jordan, therefore 202 questionnaires were removed from the analysis, leaving 721 questionnaires that were analysed. The respondents were 69% female, with a median age of 45.3 years. All the obstetricians practiced in a specialist capacity.

Regarding continuous medical education, none of the responding obstetricians had attended a special course regarding oral health and only 29 obstetricians (0.4%) had attended lectures related to oral health in the past 5 years, but none of these were attended at obstetrics-related scientific meetings. A total of 96 (13.3%) obstetricians had read at least one scientific article related to oral and dental health in the last 5 years.

The average oral health knowledge score was 3.5 out of 8 (44%). The average knowledge score for obstetrics-related dentistry and for dentistry related to systemic diseases is shown in Figure 1.

Regarding attitude towards oral health and willingness to learn, only 37% of obstetricians agreed that oral health care is a high priority during pregnancy, while only 23% considered that treatment of dental disease during pregnancy would affect obstetrical outcomes and considered referring their patients to a dentist for treatment during pregnancy, (Figure 2).

DISCUSSION

Dental knowledge and attitudes toward oral health issues of obstetricians and gynecologists has been reported by authors from different parts of the world; however, in Jordan this is the first survey of this kind. Although the sample in this survey did not represent all obstetricians and gynaecologists in Jordan, it did represent the group of obstetricians who were interested in continued professional development; therefore, the results of this study reflect the best knowledge and atti-

Figure 1: Oral and dental health knowledge scores

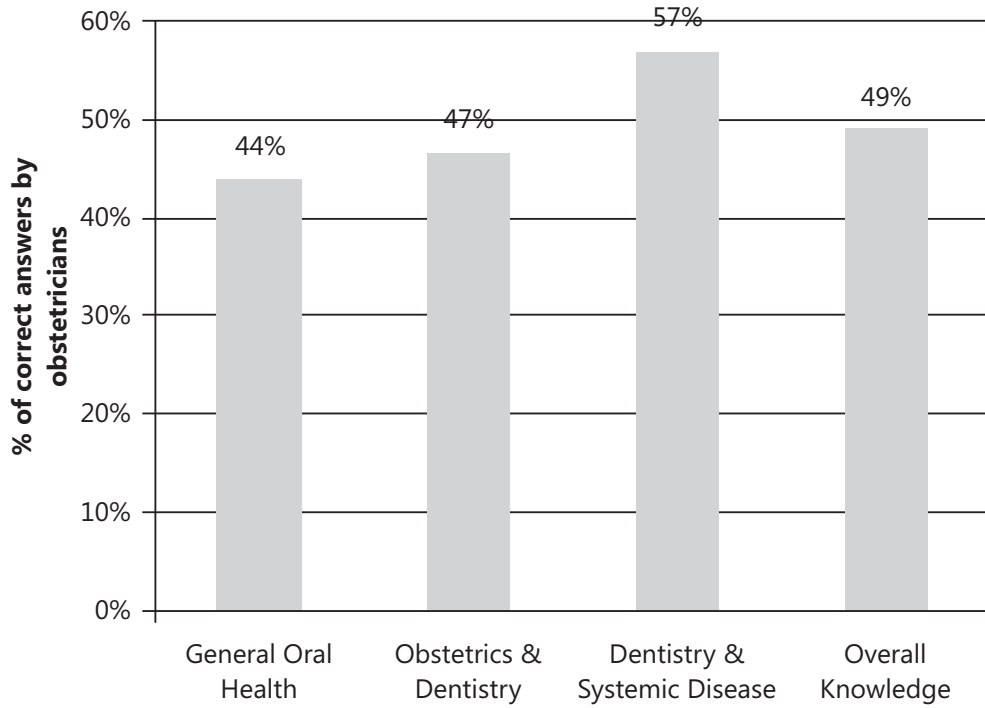
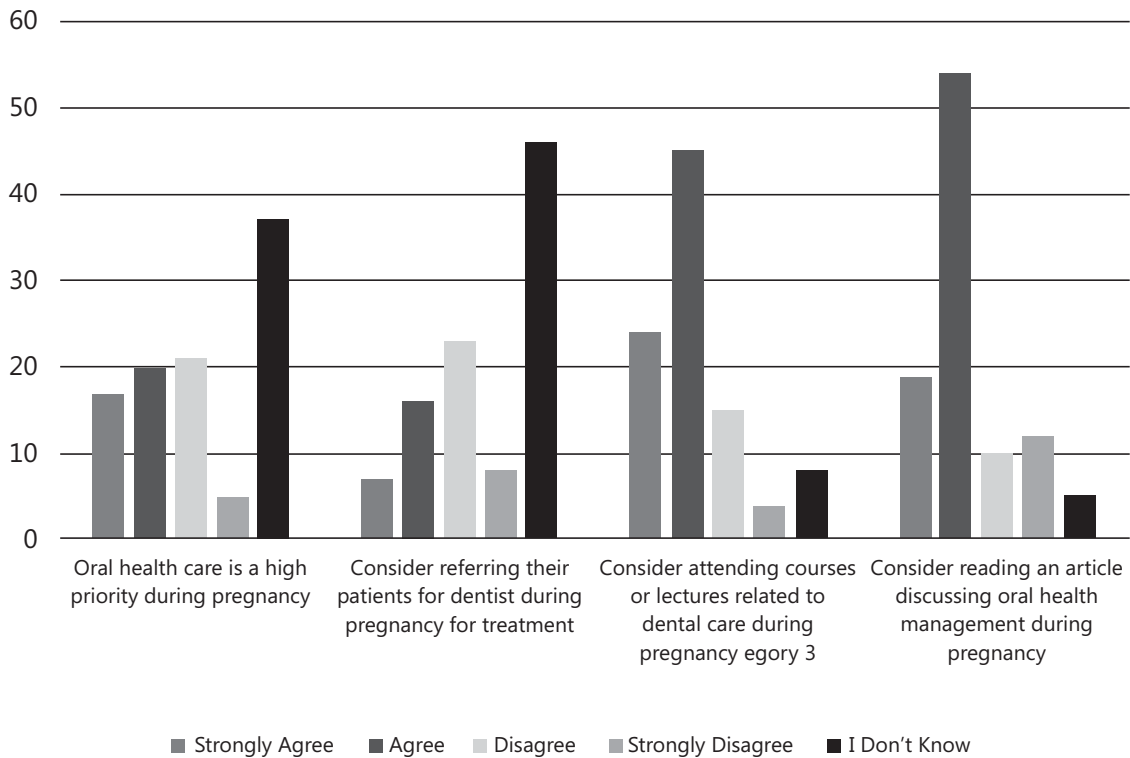


Figure 2: Attitude towards oral health and willingness to learn



tudes of obstetricians in Jordan toward oral health and dental care.

Different similar studies have shown variable results. Suri et al¹¹ showed that more than 70% of Indian obstetricians have good knowledge about appropriate dental care practices during pregnancy as well as the relationship between oral health and pregnancy outcomes (e.g. the effects of periodontitis on preterm birth and low birth weight babies). However, this knowledge did not reflect on their practice with only 40% among them recommended dental examination during pregnancy and 47% advised patients about oral care during pregnancy. Similar results were presented by Shrout et al²⁸ who showed that 79% of obstetricians from 80 North American obstetrics centres considered consultation as necessary before performing clinical procedures that could induce bacteraemia, but only 9% indicated consultation before routine treatment.

Our results showed less dental knowledge among Jordanian obstetricians (49% compared to more than 70% in the previous two studies^{11,28}). Our results were in conformity with the above studies as the knowledge of Jordanian obstetricians did not reflect in their practice. Referral of pregnant women to proper dental care varied between 9-47% in the previous 2 studies and 23% in our survey. This trend of ignorance towards oral health during pregnancy despite the belief in its importance can be explained by the lack of integration of oral health issues in the curriculum or training tasks of obstetrics and gynecology training programs. This was demonstrated in a study by Enabulele et al²⁹ who looked at resident obstetricians' awareness of the oral health component in the management of nausea and vomiting in pregnancy and found that although 58% of residents thought that oral health complaints in pregnancy were not normal, 57% of the respondents neither assessed the teeth and gums of pregnant women for problems during antenatal care nor educated them on care that would improve their oral health. These findings reflect a deficiency in obstetrics training programmes regarding oral health.

None of the responders ever attended a special oral health course and only 0.4% attend lectures related to oral health. Our survey did not question whether residency program curriculum of the responders included topics related to oral health issues, but when we examined the continuous professional development activities of responders we found that there was a lack of training or educational opportunity related to oral health for Jordanian obstetricians. Integration of oral health into obstetrical practice is lacking in Jordan, and although such an integration of oral health into medical practice and health care, in general, has been done and examined many times, unfortunately, most of these reports come from the United States of America. The remainder

of the world is lagging behind in this regard. This lack of knowledge among antenatal care providers, including obstetricians, has prompted healthcare authorities in some states in America to adopt and promote the integration of oral health into overall health care and obstetrics/gynaecology care to improve maternal and child oral health surveillance and strive to integrate oral health education into home visiting³⁰.

In a review performed by Harnagea et al³¹ 37 publications were examined and only three reports on full integration were identified. Among other challenges, the lack of interprofessional education and focus on discipline-oriented training in health care were identified as obstacles to integrated care in more than 25 of the 37 articles reviewed, indicating the magnitude of the problem. The effects of such programmes on oral health interventions incorporated into standard nursing practice have been studied in a review by Abou et al³². It was shown that 18 programmes out of 21 trials reported significant positive outcomes, including a reduction in frequency of dental caries, better oral hygiene and dietary habits and increased rates of dental visits amongst young children as reported by their caregivers. Such evidence indicates the importance, incorporation and promotion of oral health care knowledge among obstetricians and antenatal care providers by all concerned authorities (health care authorities along with training and educational authorities).

LIMITATIONS

Our study had some limitations. The first limitation was that the sample in this survey did not represent all obstetricians and gynecologists in Jordan. The second limitation was that it did not question the role of undergraduate curriculum on either the knowledge nor the attitude regarding oral health issues. Moreover, it did not test the effect of integration programs on this knowledge and attitude, this can be done in prospective post integration surveys after introducing oral health issues in either post graduate training programs or as part of continuous medical professional activities.

CONCLUSION

Data from this study demonstrated decreased knowledge of oral and dental diseases among practicing obstetricians. Their attitudes toward oral health and dental care were poor reflecting one of the causes for their deficient knowledge. Obstetricians in Jordan lack the initiative to advance their knowledge in this regard. Health authorities and educational bodies should consider integrating oral health knowledge into their practice and educational activities. Oral health issues should be included in all obstetric training programs and obstetricians should be encouraged to improve their oral health knowledge and attitudes.

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