

EFFECT OF DENTAL CARE INFORMATION SUPPORT AND TREATMENT
ON COURSE OF PREGNANCY AMONG PREGNANT WOMEN WITH
GINGIVITIS

By

Ehsan Shaban Morad Mohamed
(MSc. of Maternal & Newborn Health Nursing)

Dissertation Proposal
Submitted for Partial Fulfillment of the Requirements of the doctorate Degree in
Nursing Sciences

Dissertation Advisors

Dr. Hanan Fahmy Azzam
Professor of Maternal & Newborn
Health Nursing and Vice Dean of Graduate
Studies & Research - Faculty of Nursing
Cairo University

Dr. Magda Ahmed Fawaz
Assistant. Prof. of Maternal & Newborn
Health Nursing
Faculty of Nursing
Cairo University

Dr. Nayroz Abdel Fattah Mohamed Tarrad
Lecturer of Oral Medicine and
Periodontology
Faculty of Oral and Dental Medicine
Fayoum University

Faculty of Nursing
Cairo University

2018

Summary

The aim of the current study was to evaluate the effect of dental care information support and dental treatment for pregnant women with gingivitis on the course of pregnancy. This chapter summarizes findings of the current study, recommendations and its implication for nursing practice, research, and education.

The main findings of the current study revealed that:

- I- Regarding characteristics of the study sample
 1. Age range of the study sample was between 20-35 years. Seventy percent of the women in the study group and 62% in the control group their age ranged between 20-24 years, with a mean age among study group 23.92 ± 5.22 compared to a mean of 24.42 ± 5.14 among the control group with no statistical significant differences was found between the two groups ($p = 0.63$).
 2. Regarding to the level of education, the study findings shows that, 28% among the study group and 50 % among the control group had received secondary education.
 3. The majority of the study samples (96%) in the study group as compared to 86% in the control group were housewives.
 4. As regards to residence, 52% of the study group resided in urban areas compared to 66 % of the control group were resided in rural areas with no statistical significant difference was found between the two groups ($p = 0.069$).
 5. Regarding to health insurance, the majority of the women in study and control groups have no insurance (98% & 90% respectively).
 6. The monthly family income among the study sample ranged between < 500 - >1000 pounds. Thirty six percent in the study group vs. 40% in the control group their

monthly income between 500 < 750 pounds/month while 38 % in the studygroup vs. 46% in the control group their income between 750 < 1 000 pounds.

II. In relation to obstetric profile, no statistical significance differences was found between both groups in relation to gravidity, parity and previous pregnancy complications. Also, the mean gestational age was 17.52 ± 4.97 for the study group compared with 17.4 ± 4.78 of the control group with no statistical significant differences ($p= 0.619$).

III.As regards baseline assessment of dental health care knowledge and practice, findings of this study showed that level of knowledge among study and control group, 56% among both groups had acceptable knowledge level while 20 % had poor knowledge level for study and control group. No significance differences is found between both groups ($p = 0.99$). Moreover, the mean knowledge score of the study group is 35.52 ± 9.8 as compared with 35.22 ± 9.54 in the control group. There no significant difference was found between both groups ($p = 0.87$).

- In relation to level of practice, findings of the current study shows that, 56 % and 38 % among study & control had a satisfactory level of practice while, 44% in the study group compared to 62% in the control group had unsatisfactory level of practice with a mean of 6.66 ± 4.05 in the study group as compared to mean 5.8 ± 4.51 among the control group with no significant difference between both groups ($p = 0.319$).

IV. Regarding to the mean baseline assessment of gingival condition by using GI, BOP and, PI, among both groups, the results of the current study reveal that the mean score of gingival index (GI) was 1.59 ± 0.37 among the study group as compared

to 1.45 ± 0.35 of the control group. Also, the mean score of bleeding on probing (BOP) is 11.27 ± 3.2 of the study group as compared to 12.4 ± 3.1 of the control group. Moreover, the mean plaque index score of the study group is 85.4906 ± 9.55945 as compared to 87.0202 ± 7.92940 of the control group. No significance difference was found among two groups in relation to GI, BOP and, PI scores respectively.

V. Regarding to effect of dental care information support on level of knowledge and practices, The current study shows that improvement in the mean knowledge score among study group from 35.52 ± 9.08 pre-test to 57.94 ± 4.87 post-test with a highly significant difference ($p=0.00$). Also, the study shows that improvement in the mean practice score among study group from 6.66 ± 4.05 of pre-test to 20.78 ± 2.13 , Post-test practice score with a highly significant difference ($p = 0.000$.)

VI. In relation to, the effects of information support and treatment on gingival condition by using (GI, BOP, and PI) after four weeks from the beginning of implementation phase. The results shows that improvement of gingival condition among the study sample as the mean of gingival index decreased significantly from 1.59 ± 0.37 to 1 ± 0.4 and 90% ($n=45$) of the study sample showed decrease in the degree of moderate gingival inflammation to 2 % ($n=1$). Also, 10 % ($n=5$) of the study sample showed decreased in the degree of sever gingival inflammation to 6 % ($n=3$).

Moreover, the mean score of bleeding on probing, was decreased from 11.27 ± 3.22 of BOP at baseline assessment compared to the mean 4.38 ± 1.69 of BOP after

four weeks ($p = 0.00$). Also, the mean of plaque index score in the study sample also decreased from 85.49 ± 9.5 at baseline assessment to 47.02 ± 9.09 after implementation with a highly statistical significant difference between baseline assessment and after four weeks ($p = 0.00$).

VII. Concerning with the effect of dental care information support and treatment on course of pregnancy, results of the current study showed that the risk of developing adverse pregnancy outcome was decreased among study group than the control group. 12% (n=6) of the study group developing complications compared to 58% (n=29) among the control group with a highly significant differences between both groups ($p = 0.00$).

As regard to types of the maternal complications, the study findings reveals that 50 % (n= 6) of the study group developing two types of complications in the form of preterm premature rupture of membrane compared to 10.3% (n= 29) among the control group. While, 33.3 % (n=6) in the study group had oligohydramnios compared to 13.8 % (n= 29) among the control group. Moreover, the percentage of pre-eclampsia among the study group 16.7% compared to 24.1% among the control group respectively.

- In addition, 29 cases from the control group who developed complications during the course of pregnancy, 48.3%(n= 14) their gingival condition by using probing depth ($>3\text{mm}$) convert the cases from plaque induced gingivitis at base line assessment into localized periodontitis in the final evaluation (after four weeks).

Regarding to neonatal complication, findings of the current study shows that, 12% (n=6) of the study group reported neonatal complications compared to 63.3% (n=31) among the control group with a highly significant difference between both group (p= 0.00). In related to the types of neonatal complications, one hundred percent of neonates in the study group (n = 6) as compared to 64.5% of the control group (n = 31) had low birth weight. While, 33.3% in the study group vs. 32.3% among the control group are suffering from respiratory distress, 16.7% either developing neonatal pathological jaundice or neonatal death in the study group compared to 22.6 % (n = 31) among control group had pathological jaundice. On the other hand, none of neonates in the study group as compared to 16.1% among control group developing neonatal macrosomia.

Conclusion

Based on the findings of the current study it can concluded that, providing dental care information support and treatment for pregnant women with gingivitis improve their knowledge and practice as well as improve their gingival inflammation and decrease the incidence of adverse pregnancy outcomes.

Recommendations

Based on the current study findings, the following recommendations are suggested:

1. Integrate oral health screening into the routine antenatal checkup.
2. Conduct educational programs to educate mothers about the importance of oral and dental health care during and before planning for pregnancy.
3. Design periodic educational and practical programs for nurses working in mother and child health care centers to raise awareness about the importance of dental care during pregnancy.
4. Longitudinal studies are needed to assess the long-term effect of oral health education programs in maternity care centers on dental health knowledge and behavior of pregnant women.
5. Replicate the study in different health care setting to help in generalizing the program of dental care information support among pregnant women in all MCH center.
6. Replication the same study by using larger sample size.