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Other factors contributing to nausea and vomiting were fatigue, feeling sick to stomach and poor appetite which had affected on the majority of the study participants. This may be interpreted as NVP has a major impact on physical health which may lead to feeling of fatigue, sick to stomach and in ability to eat well. Chao et.al (2013) studied how psychosocial factors influence NVP, vomiting, and fatigue in early pregnancy and claimed that NVP is affected by fatigue. This was explained by the fact that an important trigger of nausea is stress. The most important source of stress is fatigue. Another study conducted by Dilorio & Van (2013) on nausea and vomiting in pregnancy and management of pain, fatigue and nausea and reported that the major factors which interfere with the ability to use relief measures for NVP were feeling sick to stomach and loss of appetite.

The environmental stimuli was one of the main factors which making NVP worse. Such factors were as; exposure to certain smells, being in a hot or stuffy room, feeling of nausea and vomiting especially in the morning, not eaten as before and feeling of nausea and vomiting with brushing teeth. The results of the present study revealed that the majority of the study participants had worse NVP symptoms related to exposure to the previous stimuli which were observed at the pre- intervention. Also the present study pointed out to a statistically significant difference was found between post and follow -up intervention regarding to impact of the environmental stimuli on severity of NVP. This may be clarified as, NVP related symptoms relieved after adequate controlling and management of inappropriate environmental conditions.

This finding was agreed upon by O'Brien & Zhou (2015) who studied variables related to nausea and vomiting during pregnancy and reported that the following items women stated help precipitate NVP as smell of food, cooking, smell of fatty foods, tea, coffee, and smoking. Another study conducted by Caddick et.al 2015 about guidelines for the management of nausea and vomiting in pregnancy who reported that foods' appearance, texture and smell especially food, cooking smells and smell of coffee pots or perfume make NVP worse. Isbir & Mete (2013) studied experiences with nausea and vomiting during pregnancy on Turkish women based on Roy adaptation model and revealed that inappropriate environmental conditions such as noise, hot air, an airless and dirty environment precipitate NVP symptoms.

The third domain which had a major impact on women health was the emotional function. It showed that NVP had affected on women's emotional health and the majority of the study participants felt frustrated, can't enjoy pregnancy and worried about health. Also other variables related to emotional health had affected. So the results of the present study pointed out to the presence of statistically significant difference was found at post and follow-up intervention related to emotional function based on severity of NVP. This may be explained as, general and physical health of the pregnant women was improved after appropriate management of women's emotional health.

Many previous studies have found an association between anxiety and depression and NVP especially in the early months. More recent studies, such as that by Simpson et.al (2014) provided a likely explanation that the psychological and emotional symptoms associated with NVP may be due to the stress and debilitating physical symptoms are experienced by women affected with NVP. Another study conducted by Munch et. al (2015) about health-related quality of life in women with nausea and vomiting of pregnancy at California of a sample size 93 pregnant women who reported that emotional symptoms as depression was a contributor to the effect on physical symptoms and general health domains which lead to poor quality of life.

Regarding social, domestic and occupational function, the results of the present study indicated that the majority of the study participants reported that NVP had a major impact on their domestic, social and occupational functioning and family planning as (difficulty preparing or cooking meals, took longer to get things done than usual, relying on partner to do things, difficulty performing work, difficulty maintaining normal social activities, difficulty shopping for food, and difficulty sitting with family during meals). These results proved at the pre-intervention, however; the results pointed out to the presence of statistically significant difference found at post and follow -up intervention related to social function based on severity of NVP. This may be rationalized as, improving general health and relieving NVP related symptoms have a major impact on the social domestic occupational function.

Consistent with a previous study done by Heitmann et. al (2016) who studied the burden of nausea and vomiting during pregnancy: severe impacts on quality of life, daily life functioning and willingness to become pregnant again at Norway of a sample size 712 pregnant women, it showed that the majority of the pregnant women reported that the NVP had major adverse effects on the ability to care for their children, also on the relationship with their partner, reflecting substantial effects on family life functioning. In total 94% reported major impact on their work capacity and over 90% had been on sick leave due to NVP, illustrating that occupational functioning is affected for most women with severe NVP. This was in line with other studies describing that even mild NVP affected important part of the women's daily lives, such as caring for children, relationship with partner, work productivity and intent to become pregnant again (Clark, Hughes & McDonald , 2013).

The aforementioned findings revealed NVP has an impact on daily life functioning and willingness to become pregnant again. Also there was a highly statistically significant improvement of the general symptoms regarding (physical, environmental emotional and social function) by comparing the pre, post and follow-up intervention mean scores. Additionally, the mean score for each part of the domains questionnaire was significantly different while comparing the results of the three measurements and determine the effect of clinical practice guidelines on NVP QOL.

**Conclusion:-** The present study findings supported the study hypotheses and concluded that using of alternative treatments had a greater effect on reducing severity of nausea and vomiting during early pregnancy post intervention. This supported the research hypothesis (1) which was, pregnant women who follow the alternative treatments of nausea and vomiting have lower scores of the severity of nausea and vomiting during

early pregnancy than those who do not follow these treatments. There was also an improvement of normal functioning quality of life of the pregnant women after using alternative treatments post intervention. This supported the research hypothesis (2) which was, pregnant women who follow alternative treatments of nausea and vomiting during early pregnancy have higher scores of normal functioning quality of life than those who do not follow these treatments.

### **Recommendations**

According to the findings of the current study, the following recommendations are proposed:- early guidance with alternative treatments during early pregnancy helped reduce degree of severity of nausea and vomiting and leads to fetal and maternal well health. Nausea and vomiting during early pregnancy negatively impact the normal functioning quality of life of the pregnant woman. So she needs support to be able to cope with the pregnancy problems.

### **Implications for Future Research**

- Increasing awareness about alternative treatments of NVP to be used as a routine care for nausea and vomiting during early pregnancy.
- Translation of alternative treatments of NVP in simple instruction booklet and to be freely distributed to the MCH centers.
- Expanding follow up duration of the pregnant women to measure susceptibility of adherence to alternative treatments of NVP.
- Replication of the research study by using qualitative studies should be determined. It would be beneficial to focus on specific factors influencing NVP or improving the QOL.

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