Abstract

Background: In 2002, the government in Jordan published standards for primary health care detailing a free antenatal education (ANE) programme in order to decrease the maternal and neonatal mortality rates. The new programme needed to be evaluated.

Aim: The aim of this study was to test the efficacy and effectiveness of Jordanian ANE in improving maternal confidence, decreasing anxiety, and improving birth outcomes.

Methodology: This study was conducted using a natural experiment, Solomon four group, non-equivalent comparison design. Bandura's (1977) self-efficacy theory underpinned the theoretical framework. A convenience sample of 266 nulliparous women was recruited from three governmental (public) Maternal Health Centres and three private obstetrician clinics in Northern Jordan (Irbid city). Childbirth Self-efficacy Inventory, State Trait Anxiety Inventory and self-developed birth outcomes questionnaires were used to measure maternal confidence, anxiety and birth outcomes. Ethical approval and research governance was obtained from the University of Ulster and the Hashemite University. Analysis was undertaken using SPSS (v11) and data are presented using descriptives and inferential analyses.

Findings: The effect of antenatal education on maternal confidence and anxiety were not significant. Whilst no statistical significance was observed, it was interesting to note that secondary findings such as caesarean rate, medication during labour and after birth and postnatal stay were all higher in the comparison (private) group. Self-efficacy and state anxiety increases at the end of pregnancy were influenced by multiple factors. Emotional support from grandmother and receipt of education about childbirth are independent and positive predictors of an increase in women's self-efficacy at the end of pregnancy. Witnessing childbirth, care provider was obstetrician during antenatal visits, high self-efficacy and high state anxiety at the middle of pregnancy were independent and negative predictors for increase in state anxiety at the end of pregnancy.

Discussion: The effects of antenatal education were not straightforward. Antenatal education was not a strong predictor for self efficacy and state anxiety. This may be due to poor quality preparation for antenatal educators and variable provision of antenatal education.

Conclusion: The Solomon design is challenging with quite complex analysis. Results were statistically inconclusive but clinically noteworthy . Antenatal education is a complex intervention with many independent variables. Further research to evaluate the impact of tailor-made, individualised, culturally sensitive and relevant antenatal education is required. Government policy makers have an important role in commissioning effective antenatal education.

Whilst no statistical significance was observed in primary outcomes (maternal confidence and anxiety), it was interesting to note that secondary findings such as caesarean rate, medication during labour and after birth and postnatal stay were higher in the comparison (private) group. However as these were not the primary outcomes, caution should be taken in their interpretation, as they do not provide strong evidence.