SUMMARY

BACKGROUND: Nigeria contributes significantly (13%) to the global burden of maternal mortality, ranking second in the number of maternal deaths. Prompt detection of abnormal progress and prevention of prolonged labour can immensely improve maternal health in the country. The modified WHO partograph is a simple and inexpensive tool that produces a significant reduction in maternal and perinatal mortality as well as morbidity when used to monitor labour.

OBJECTIVES: This study aimed at evaluating the effect of modified WHO partograph on labour care with a view to improving maternal and perinatal outcomes of labour at Gambo Sawaba General Hospital, Zaria. The objectives were to determine the socio-demographic characteristics of the participants, the maternal and perinatal outcomes in both the control and intervention groups, comparing the outcomes in the two groups and assessing the association between the use of modified WHO partograph and maternal as well as perinatal outcomes of labour.

MATERIAL AND METHOD: This was a quasi experimental study, the subjects were 544 women with uncomplicated full term pregnancy with cephalic presentation in active labour, allocated into the two groups using alternate sampling method (a non-probability sampling method) with each group having 272 participants respectively over the period of 3 months (October to December, 2014). The participants in the intervention group had their course of labour monitored with the modified WHO partograph while those in the control group were not. Interviewer-administered questionnaires and data recording tools were used to extract information from the participants. The maternal and perinatal outcomes were measured and analysed after matching the two groups in terms of ages, parity, gravidity, booking status, number of antenatal care clinic attendance and socio-economic status.
**RESULTS:** There was an improvement in the maternal outcomes as evidenced by significant reduction in the operative delivery in the study with a P=0.019 (rate of caesarean delivery decreased from 16.2% to 10.3% and instrumental delivery from 8.8% to 4.4%), perineal laceration (from 41.6% to 16.5%, P=0.0001), augmentation of labour (from 32.4% to 16.9, P=0.0001) and post-partum haemorrhage (from 25% to 18.0%, P=0.047). The duration of first stage of labour ≤12 hours increased from 80.5% to 88.2%). There was no incidence of ruptured or maternal death.

Also an improvement was seen in the foetal outcomes of the participants as reflected in the reduction of immediate neonatal death (from 7.4% to 2.9%, P=0.020) and admission to NICU (from 19.5% to 4.8%, P=0.0001). The Apgar score ≥7 of babies of the participants in the intervention group improved from 52.9% to 65.8% and 55.9% to 69.9% at 1 and 5 minutes respectively (P=0.003 and 0.001).

**CONCLUSION:** The use of the modified WHO partograph significantly improved the maternal and perinatal outcomes of labour in this study. Hence, it is recommended for use in labour monitoring in the study centre while a further multi-centre study is recommended to increase the strength of the evidence of the use of the partograph in the state.