SUMMARY

**Background:** Hypertension is a global challenge and despite the availability of effective treatments, the control of high blood pressure is far from optimal, with lack of adherence to blood pressure lowering medication being a major factor. Non-attendance to hospital outpatient appointment is a major burden on healthcare systems. Text messaging offers a number of benefits over other techniques of reminder like postal card and telephone reminders. The aim of the study was to assess the effect of text messaging on improving hospital visits and blood pressure control in adult hypertensives in Bingham University Teaching Hospital Jos.

**Methodology:** The study was carried out between July 2013 and January 2014. Seventy-two consenting hypertensives receiving care at the Out Patient Departments of Bingham University Teaching Hospital Jos were recruited and randomly allocated into an Intervention group (those receiving text messages) and a Control group (those not receiving text messages). The socio-demographic characteristics and clinical parameters (blood pressure, height and weight) were obtained from both groups using 72 standardized questionnaires. The data was imputed and analyzed using SPSS (Statistical Package for Social Sciences) software version 20. Results were presented in tables and figures, Relationships were determined using chi-squares, student t-test and statistical means.

**Results:** Post intervention, at the first visit (four weeks later) there was a statistically significant difference in the mean change in systolic blood pressure (p= <0.000) and mean diastolic blood pressure (p= <0.000) between the Intervention and the Control groups. At eight weeks there was a statistically significant difference in the systolic blood pressure (p=<0.000) as well as the
diastolic blood pressure (p=<0.000) between the Intervention and the Control groups. Also at the third clinic visit (after 12 weeks), the mean systolic blood pressure had a statistically significant difference between the Intervention group and the Control group (p=<0.000). There was also a statistically significant difference in the diastolic blood pressure (p=<0.000) between the Intervention and the Control groups over the follow up period.

Following intervention, there was a significant difference in the level of adherence to hospital visits between the Intervention and the Control groups. This difference was statistically significant for the first visit (p = 0.001), second visit (p=0.008) and third visit (p = 0.002).

Adherence to hospital visits led to an improvement in blood pressure control in the Intervention and Control group.

**Conclusion and Recommendations:** The results of this study demonstrated that text messaging greatly improved adherence to hospital visits in the Intervention group compared to the Control group. The blood pressure was affected by the intervention as there was a significant difference in the mean change in blood pressure across the hospital visits. From the outcome of this study adherence to clinic appointment led to an improvement in blood pressure control. Text messaging can be used to improve adherence to hospital visit and in turn improve blood pressure control.