**Background.** Harmful use of alcohol constitutes a huge public health challenge all over the world.

**Objective.** To determine the effectiveness of telephone based brief intervention on harmful and hazardous alcohol consumption using the Alcohol, Smoking and Substance Involvement Screening Test (ASSISST).

**Methods.** Out of an initial 1204 participants, 285 (23.7%) subjects who were at moderate and high risks of health problems from alcohol consumption were randomized into an intervention (n = 143) and control group (n = 142) respectively. All participants received ASSISST Linked Brief Intervention, but those in the intervention arm received additional intervention using daily telephone text messages encouraging them to remain abstinent. The primary outcome variable was significant reduction in proportion of participants at both moderate and high risk of alcohol use at 3 and at 6 months respectively. Relative risk was used to compare the effect between both groups and the Wilcoxon signed-rank test for within group comparison. SPSS 20.0 was used in the analyses.

**Results.** At 3 months, significantly lower proportion 88/135 (65.1%) of the intervention group were at moderate or high risk of alcohol use when compared with the control group 120/137 (87.6%), RR = 0.74 < 0.65 < RR < 0.85. At 6 months, significantly lower proportion 46/120 (38.8%) of the intervention group were at moderate or high risk of alcohol use when compared with the control group 99/120 (82.5%), RR = 0.44 < 0.35 < RR < 0.57.

**Conclusion.** Daily cell phone text messages have the potential in maintaining abstinence among those with moderate or high risk of harmful and hazardous alcohol use.