

I 124-PD Arogya World's mDiabetes Helps Both Rural and Urban Indians Lead Healthy Lives, Adds to mHealth Evidence Base

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Background

Diabetes is a significant health problem in India with 66 million affected people and 1 million deaths each year.

Aim

As mobile phone use is widespread, Arogya World's mDiabetes program evaluated the impact of mobile technology, specifically text messages, on healthy lifestyle behaviors.

Method

Arogya World, with Emory University, developed 56 text messages about healthy eating and increased physical activity. These text messages were transmitted by Nokia in 12 Indian languages, 2 times per week, free, to 1,052,633 mobile phone users throughout India who opted into the six-month program. Self-reported health behaviors were assessed through telephone interviews pre- and post-intervention, with more than 1200 consumers (611 in Intervention Group - Nokia mobile

phone users who received the text messages, and 632 in Control Group - non-Nokia mobile phone users who did not receive the messages). Four health behaviors, known to prevent diabetes, were tracked in both groups, and descriptive statistics are presented.

Results

Positive changes in all 4 health behaviors were noted in the Intervention group with 5% more consumers reporting eating 2-3 vegetables/day, 10% more reporting regular exercise, 14% more saying they avoided fried food and 15% more reporting eating 2-3 fruits/ day, post-intervention, as compared to baseline. No significant changes were observed in the four health behaviors in the Control Group.

Data from the Intervention Group were subsequently further analyzed by rural versus urban locations. After receiving the text messages, the Intervention Group of consumers in both rural and urban areas showed improvements in health behavior.

Table: Demographic analysis of change in Intervention group

Parameter	Reported change* from pre- to post- intervention	
	Rural N=Pre(325)/Post(316)	Urban N= Pre (286)/ Post (295)
Exercise regularly	12% (47% to 59%)	6% (54% to 60%)
Vegetable intake (2-3/day)	6% (66 % to 72%)	5% (62% to 67%)
Fruit intake (2-3/day)	18% (31% to 49%)	11% (37% to 48%)
Avoiding fried food	15% (67% to 82%)	12% (71% to 83%)

* All changes were statistically significant at 95% CI.

Receipt of grants/research support:

Arogya World received funding support for this research project from Aetna, Johnson & Johnson etc.

Discussion

The positive impact on health behaviors in both rural and urban Indians, suggests that mobile technology may be a powerful tool for population level prevention of diabetes. Further studies are needed to validate the self-reported data.

Conflict of Interest Disclosure:

This poster *does not* contain any trade names.

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