



## Seeds of prevention: The impact on health behaviors of young adolescent girls in Uttar Pradesh, India, a cluster randomized control trial



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### ABSTRACT

Of the world's 1.2 billion adolescents (10–19 years), India is home to the largest number globally, about 243 million. However not much is known about the health of young adolescent girls (11–14 years) in India who enter puberty with substantial nutritional and health deficits. Identifying early adolescence as a “gateway” moment, the Saloni pilot study is a randomized control trial (RCT) to improve nutrition, hygiene and reproductive health behaviors in 30 schools in rural Uttar Pradesh (UP), India. A prevention model that includes *Sadharanikaran*, an ancient Indian theory of communication, guided the development of the intervention.

The Saloni strategy includes a 10 session in-school intervention based on compassion, self efficacy, emotional well being, peer and parental support, packaged in the form of short, easy-to-use instructional modules. A diary designed to engage adolescent girls is provided to each girl.

The cluster RCT was conducted from January 2010 to October 2011 with adolescent girls (11–14 years of age) in Hardoi district. The trial is a two-level, nested RCT with the unit of randomization being the block with 15 schools in the intervention arm and 15 schools in the control arm. A sample of 1200 girls was randomly selected.

The intervention had a significant impact on more than 13 preventive health behaviors. About 65 percent girls in the intervention group had adopted 13 or more health behaviors at end line compared 4.5 percent in the control group at end line and 5 percent at baseline. Behavioral impact was demonstrated in all three areas of nutrition, hygiene and reproductive health. The study provides evidence that early adolescence is indeed a “gateway moment” to build nutritional and health reserves.

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### 1. Introduction

Early adolescence in girls (10–14 years) includes rapid transition and is strewn with missed opportunities to invest in health. Of the world's 1.2 billion adolescents (10–19 years), India is home to the largest number globally, about 243 million, of which many are unhealthy (UNICEF, 2012; Blum, 2009). Young adolescent girls in India are vulnerable as they enter puberty with substantive

nutritional and health deficits. Evidence for preventive and efficacious health interventions for young adolescents is scarce.

The health challenges facing women and children in Uttar Pradesh, particularly those in rural low-income groups, are deeply entrenched in a largely unresponsive public health system. Young women, often born to underweight, undernourished mothers into a world of low health literacy and poor sanitary conditions, tend to give birth to underweight undernourished children themselves. This “cycle of failure” produces generation after generation of children with compromised physical and cognitive development that threatens their own health and that of their children when they, too, become parents.

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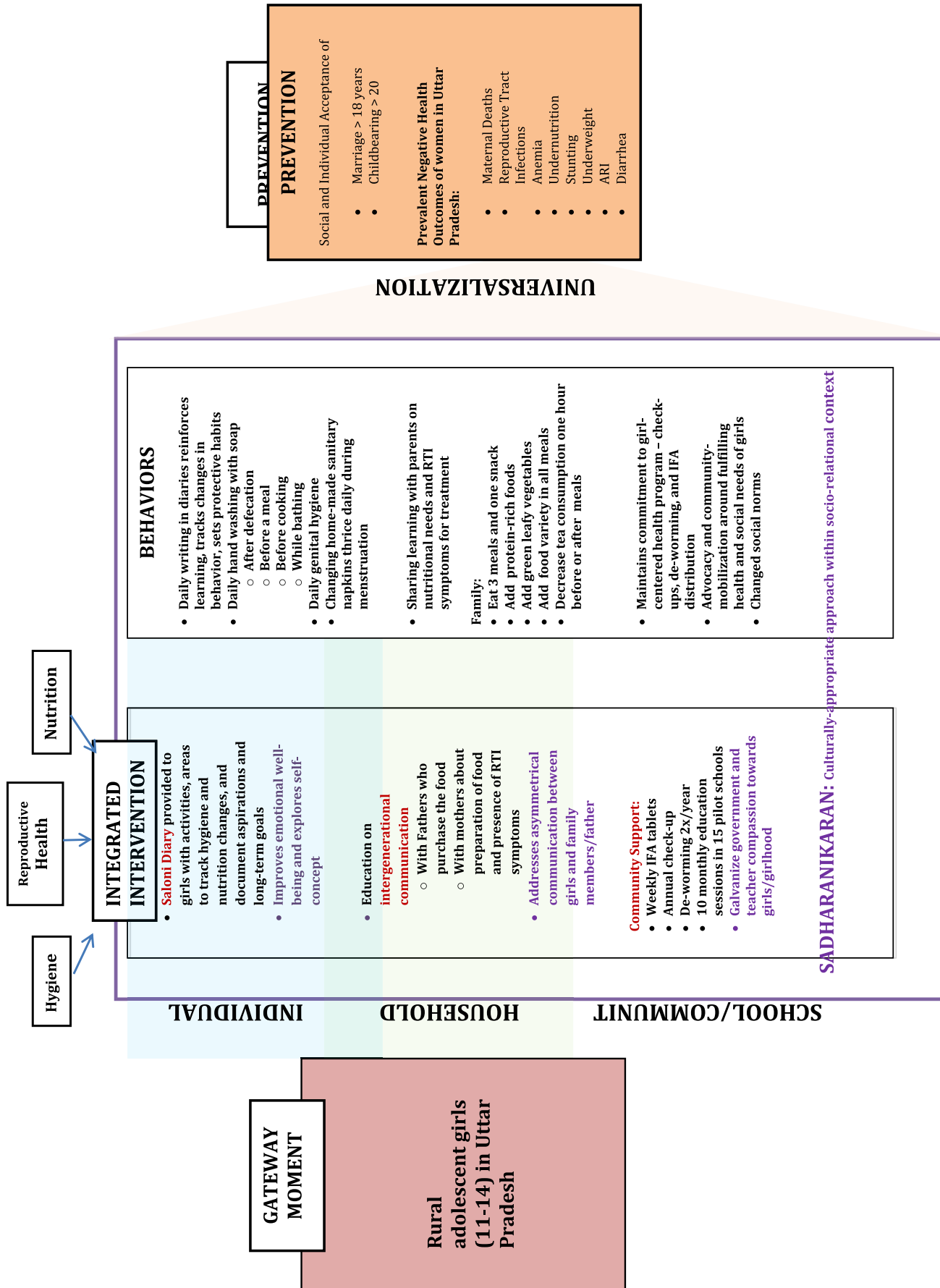


Fig. 1. Prevention model.

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