

Title: Anaemia prevention in the community: Students as change agents

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What problem was addressed: In over populated countries like India there will never be sufficient number of health care providers to take care of population health needs such as diagnosis and prevention of anaemia. Anaemia is a widespread nutritional deficiency disease in India especially affecting women in childbearing age. Medical students are an underutilized resource that can be tapped for simple yet significant community based health care initiatives; moreover they need to be educated to implement preventive health interventions to facilitate sustainable and accessible health care.

What was tried: Service learning has been shown to benefit students, improving interpersonal and communication skills, clinical skills, and understanding of community issues. However, service learning has not yet been incorporated into the formal curriculum in India. We did a pilot with 30 final year medical students who volunteered to conduct community health visits over a four-month period in a peri-urban village adopted by the Army College of Medical Sciences, New Delhi, India. The goal was to educate students to improve anaemia prevention practices in the community. They learned to diagnose anaemia clinically and confirm it by a field test. They evaluated the community perceptions related to anaemia and used health education to effect change in knowledge, attitude and practices of community women.

We conducted two communication skills workshops and assessed student knowledge using a 10-item questionnaire before and focus group discussion after the service learning activity. Sixty-nine married women from the community consented to participate. We developed a questionnaire and tested the women's knowledge, attitude and practices about anaemia before and three months after the intervention. Students worked under faculty supervision to test the women and their children for anaemia and carried out deworming and iron/folic acid supplementation in standard doses. They also organized lectures with discussion sessions and street plays for the women.

What lessons were learned: During the follow-up focus group, students recognized themselves as change agents within the community, feeling empowered, improving communication skills, being more aware of community, and believing they could make a difference.

Overall, the community women's knowledge, attitudes and practices related to anaemia prevention showed statistically significant improvement as a result of these simple interventions. More women were able to identify pallor as a sign of anaemia (8.7% pre; 87.3% post) and multiple pregnancies as a cause of anaemia (20.3% pre; 84.1% post). Questions such as "Do you think that anaemia can affect academic performance in school going children" and "Do you think

anaemia is a significant health issue” showed a change in response from 75.4% and 71% to 97.1% and 91.3%, respectively. The project did not have sufficient time to record any improvement in the haemoglobin values.

Overall, the results indicate that service learning can benefit both the provider and recipient. We plan to sustain and improve the project, by measuring changes in haemoglobin to establish that service learning improves health. In resource poor settings, medical students can be “change agents” to provide simple yet impactful community health initiatives that align with national health needs.

Reference:

1. Buckner A V et al. Using Service-Learning to Teach Community Health: The Morehouse School of Medicine Community Health Course. *Acad Med.* 2010;85:1645-1651

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