

REVIEW ARTICLE

A Research Paper on Dr. Abhay Bang

Kasumbiwal Ajay H.³, Dake Mangesh V.², Tambe Pranita³, Kulkarni Shruti Rahul⁴

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ABSTRACT

Dr. Abhay Bang is an eminent Indian physician, public health researcher, and social reformer whose pioneering work has transformed community-based maternal and child healthcare in rural India.

Rooted in Gandhian values and motivated by a commitment to social equity, Dr. Bang, along with Dr. Rani Bang, established SEARCH in Gadchiroli, where they developed innovative, evidence-driven healthcare models tailored to underserved tribal populations. His most influential contribution, the Home-Based Newborn Care (HBNC) model, demonstrated that simple, low-cost neonatal interventions delivered by locally trained village health workers can reduce neonatal mortality by nearly 70%. This model, validated through rigorous field research and published in high-impact journals, has been adopted in national and global health programs. Beyond HBNC, Dr. Bang's research spans pneumonia, diarrhoeal diseases, maternal depression, alcohol abuse, and adolescent sexual health. Despite socio-cultural barriers and resource limitations, his work exemplifies the power of community participation, scientific rigor, and compassionate service. Dr. Bang's legacy continues to inspire future healthcare professionals to innovate, persevere, and work toward equity in public health.

Key Messages: Community-trained health workers can significantly reduce neonatal mortality using simple, evidence-based interventions. The HBNC model pioneered by Dr. Bang has influenced national and international newborn care policies. Compassion, scientific rigor, and local participation are essential pillars for effective rural healthcare. Research conducted in resource-limited settings can generate globally relevant solutions. Dr. Bang's work highlights that social commitment and grassroots innovation can drive large-scale public health change.

AUTHOR'S AFFILIATION:

¹ Professor and HOD, Department of Pediatrics, VDGMC, Latur, Maharashtra, India.

² Assistant Professor, Department of Pediatrics, VDGMC, Latur, Maharashtra, India.

³ Senior Resident, Department of Pediatrics, VDGMC, Latur, Maharashtra, India

⁴ Student, Department of Pediatrics VDGMC, Latur, Maharashtra, India.

CORRESPONDING AUTHOR:

Shruti R. Kulkarni, Student, Department of Pediatrics, VDGMC, Latur, Maharashtra, India.

E-mail: shrutigrk@gmail.com

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KEYWORDS

• Dr. Abhay Bang • Home-Based Newborn Care • SEARCH Gadchiroli • Neonatal mortality • Community health • Public health innovation Rural healthcare participatory research

INTRODUCTION

Dr. Abhay Bang is a globally respected Indian physician, public health expert, and social reformer known for his groundbreaking work in child health, rural healthcare, and community-based pediatric care. He was chosen for this paper because his life and work embody a rare combination of scientific rigor, deep empathy, and grassroots activism. Dr. Bang's pioneering efforts in reducing child mortality and empowering rural communities through health education and participatory models have not only transformed healthcare in India but have also influenced global health policies. And when I was young girl, I was lucky enough to witness to see him interviewed live and that impacted my career choices and has to greater extend he makes me want to emulate is simple lifestyle and dedication to do something for the society.

Background:

Dr. Abhay Bang was born in 1950 in the Wardha district of Maharashtra into a family deeply involved in the Gandhian movement. His parents were freedom fighters and social workers who established the Search (Society for Education, Action and Research in Community Health) foundation in Gadchiroli, Maharashtra. This upbringing in a value-driven, service-oriented environment laid the foundation for his future work.

He pursued medicine at Government Medical College, Nagpur further continued in the same institution to get a MD Medicine, and later earned a Master's in Public Health from Johns Hopkins University, USA. His time in the U.S. exposed him to global health systems but also strengthened his desire to return to India and work with marginalised communities. After coming back to India he had to decide where to settle and in the answer this idealist couple decided "to go where the problem was not where the facilities are" as he mentioned in his tedEd interview. Alongside his wife, Dr. Rani Bang, he returned to rural Gadchiroli, where they began working on

maternal and child health with a strong focus on community-based participatory research. Their commitment to "health for the people, by the people" became the cornerstone of their interventions.

Scientific Contributions

Dr. Abhay Bang and Rani Bang founded ShodhGram (the research village) in Gadchiroli. There they searched for health problems of people in the villages around them. After a few years they started taking annual people's health assembly aka jaatra where they discussed the villages health issues with the local representatives. In one such assembly, they came across a huge problem expressed by the village representative was infant mortality in the villages. Then in the shodhgram, they conducted a field research where they chose 39 villages as test villages in which they trained the local village women in neonatology basics and neonatal resuscitation. Dr. Bang's most influential contribution is the development of the Home-Based Newborn Care (HBNC) model in the 1990s, which significantly reduced neonatal mortality in tribal areas of Maharashtra. The HBNC model trained local village health workers (Aarogya Doots) to manage neonatal infections and provide essential newborn care at home using simple, low-cost methods.

This intervention led to a 70% reduction in neonatal mortality in the region and was later adopted by the Government of India and endorsed by WHO and UNICEF for implementation in several countries. Through the HBNC project, Dr Bang reduced natal mortality from 121 deaths in every 1000 to 30 in every 1000 in the period of 1988 to 2007, which proved the efficacy of this project compared to the test villages, where the neonatal deaths were not reduced that significantly.

Beyond HBNC, Dr. Bang has contributed to:

- Research on childhood pneumonia and diarrhoeal disease management

- Early identification and management of maternal depression
- Studies on alcohol abuse in men and its effects on women and children in rural settings
- Advocacy for youth sexual health education through the “Tarunyabhaan” initiative
- His work blends scientific research, community participation, and public health implementation, making a real difference in lives at the grassroots level.

Challenges & Breakthroughs

Dr. Abhay Bang’s journey was not without significant challenges. Working in one of India’s most underdeveloped tribal districts, he faced infrastructural gaps, cultural barriers, Naxalite prevalence and resistance to change. Convincing communities to adopt modern healthcare methods and trust trained local workers required deep engagement and empathy. Additionally, there was skepticism from the medical establishment about relying on non-physician health workers for newborn care.

However, Dr. Bang and his team overcame these obstacles through rigorous field research, evidence-based advocacy, and by building trust within communities. Their success lay in involving locals as stakeholders and respecting traditional wisdom while introducing scientific practices. The publication of their results in reputed journals like *The Lancet* provided validation and credibility, enabling scale-up and policy-level impact.

Reflection:

Dr. Abhay Bang rather than preaching makes us think through his example that what can we do in our life that can help the society. He forces us to believe that changing the society always does not need huge funds or a high post in government, all you need is the knowledge, perseverance and a scientific attitude to find solutions.

His simple solution of HNBC was met with criticism as people thought how can illiterate or semi literate women in villages make their own small NICU in houses but he proved all of them wrong with rigorous research that even these illiterate women with simple steps can save thousands of life in their own villages. he also empower those women in the villages

to make them feel like they are making a huge contribution with the help of knowledge, which is the most powerful tool in the world.

He thus inspire me to study hard and to always think outside the box. He proved that research, even in the smallest villages, and the places with the least facilities can make a difference. He is a excellent example to show that in this era when people want to become become doctors to earn fame and lots of money, how success is truly in helping people out, and he redefined that definition for me.

In his interviews, Dr Bang open says that “think locally act globally” in the world people want to change the whole world, he shows us how the problems across the globe are the same, and if you just pay a little bit more attention to your surroundings and try to solve and save the world around you, you might just end up changing the whole world in your small way.

CONCLUSION

Dr. Abhay Bang’s legacy is one of compassionate science, community-driven healthcare, and relentless commitment to equity. His pioneering work in reducing newborn mortality through simple, scalable solutions continues to save countless lives. More than a physician or public health expert, he is a humanitarian, bridging the gap between rural realities and scientific innovation. His story inspires a new generation to blend intellect with integrity and to remember that the real test of knowledge is in its ability to uplift the most vulnerable. As we reflect on his journey, we are reminded that purpose, passion, and perseverance can shape not only careers, but entire systems.

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