Initiative
“Problem Solving for Better Health” (PSBH): Our Experience
D.V.Bala, Professor & Head, Dept. of Community Medicine,
Smt. NHL Municipal Medical College, Ellisbridge, Ahmedabad-380006
Correspondence to Dr D V Bala: email: baladv@rediffmail.com

The faculty members of Community Medicine often feel that exposure of the undergraduate medical students to the community outside the premises of the institute is essential for them to have the first hand information of the community needs and community problems. Even though efforts in this direction are made in the form of family study or clinico-social case study in the field or field visits to some institutions/departments, but the interest of the UG students and expected results of these visits are far from satisfactory.

Under new regulations of Medical Council of India (MCI), research projects are made compulsory at all levels of medical education. Therefore, research methodology has become a felt need of the medical curriculum. That is how we at Community Medicine Department of Smt. NHL Municipal Medical College, Ahmedabad decided that it is appropriate to sensitize final year undergraduate medical students and make them do their research projects.

The mission of PSBH is to develop innovative, small scale, and simple Problem Solving projects that will benefit many people. Participants generate new ideas and Methods to utilize the resources more effectively. The goal is to stimulate participants problem based projects based on individual responsibility and action to create collaborative network of small, self sustaining and lasting Health projects.

In the year 2000, Health Action by People (HAP) (which is a non governmental organization based in Kerala and also is the Indian partner of Dreyfus Health Foundation, New York), approached our institute to implement PSBH programme to undergraduate students.

Dr. A.R.N. Setalvad, then Dean of our institute whole heartedly encouraged this innovative activity and invited faculty of HAP to conduct the PSBH workshop. Then Professor and Head of the Department of Community Medicine, Dr. K. N. Trivedi in our medical college took the initiative to organize the workshop in our department for the first time on 7th & 8th August 2001 and this legacy continues.

Four faculty members of HAP were invited as the external facilitators to conduct the workshop for our UG students. All the teachers of our department, three faculty of Medical Education Unit and two Professors (Dr.Geeta Kedia & Dr.Sudha Yadav) of Community Medicine department of B.J.Medical College, Ahmedabad participated as internal facilitators along with one external facilitator in each group of undergraduate students. Initially HAP had supported the workshop in several ways and subsequently, the department/institute has taken over. The faculty of HAP had invited our departmental faculty to join them as external facilitators and we were able train UG students of 15 medical colleges.

The PSBH Philosophy of HAP:

PSBH believes that solutions to most health problems are well within our reach. The solutions to must be ingenious and simple. The emphasis is on problem solving in order to make a difference, even if the numbers of beneficiaries are small. The students are encouraged to generate much needed information through analysis of hospital data or laboratory data or through cross sectional surveys or case control studies.

The goal of the programme was to expose the undergraduate medical students to a new experience through participatory learning and the ultimate goal was getting
the research done by the students under the guidance of the teachers of Community Medicine. Modern medical education trains young doctors to treat sickness on an individual basis. Interventional technology and sophisticated diagnosis take precedence over concerns about social, psychological and environmental origins of illness. Little stress is given to non medical interventions in reducing the burden of illness. Today’s policy planners and policy makers are relying on the advice of doctors particularly experts in Community Medicine and Public Health. To meet these changing needs, the medical doctors are required to come together and evolve simple, innovative and cost effective local solutions to most of the health problems. Commitment and innovation are two critical elements in problem solving.

There is a dearth of reliable data in our hospitals and other institutes gathered on our patients and if there is any data, the validity of that data is also questionable because it is not collected with scientific vigour. The results in inappropriate policy formulations and misguided interventional strategies. Therefore, the young medical students have to be sensitized on the importance of gathering reliable evidence and using such evidence for appropriate action.

**PSBH for undergraduate medical students:**

The mission of PSBH is to sensitize medical students on important health problems of local relevance and to equip them with innovative skills for problem solving. The PSBH process enables the students to develop skills for innovative approaches to solve health problems. The participants are encouraged to identify common health problems, or social problems that need urgent action and evolve innovative approaches to solve them. Every student is encouraged to participate in group discussion on the health / social problem topic selected. Each one contributes ideas and knowledge to the benefit of others and each one also learns from the insights of other participants. The whole process is guided by the facilitator (teacher) through various stages of problem solving. The exercise starts with identification of a health problem and culminates in each participant developing an action plan to solve the problem. After the two days workshop, every participant is expected to implement his/her solution, as a group of three or four students. These community based projects are expected to bring better health people in the community.

**The PSBH process:**

The Problem Solving for Better Health is a continuum of many activities. It starts with identification of a problem and proceeds through various stages to the successful implementation of the solution. This exercise by medical students is an initiation into research methodology in medicine. The experience is shared with others students by audio-visual presentation and report writing and sometimes by publishing the article. The students learn the skills mentioned below.

- Identify a problem and Refine the problem
- Frame the Research question (SMART question)
- Develop proper action plan or Develop a Protocol
- Implement the action plan
- Analyze and interpret the data to assess the success or failure
- Write the final research project report
- Present the results of the project and
- Share the experience with peers, teachers and community

**PSBH Workshop in our Institute:**

Since August 2001, every year two workshops are held for UG students (one for regular batch and other for repeater batch). It was decided to start the activity in the beginning of VI Semester and complete it before the end of VII Semester. Thus the students get duration of 8 months to complete the research project under the guidance of their teachers (facilitators) and
prepare the report. Then, a Re-Union workshop is held and each project would be shared by power point presentations with everyone in their class and all the teachers. Each faculty of the department would take up 12 to 14 students. A group of 3 to 5 students would take up one research question and work as a team. The facilitators guide them throughout with minute details at every stage. We have some weightage for this research project in the Internal Practical Marks in the subject. Thus this is made mandatory for each UG student to participate in this activity. Thus every year 32-35 research projects are contributed.

Outcomes of PSBH:

**Academic & Technical Skills:**
1) Medical students are sensitized on important health problems of local relevance
2) They are equipped with innovative skills for problem solving
3) They are exposed to the community and have close interaction with people, this makes them aware of the real day to day physical, mental, social and psychological problems of the community.
4) They learn to frame a right Research Question, write a Protocol, project writing and presentation of their research project,
5) The concepts of Epidemiology and Biostatistics in addition to the topic of research question become very clear to the student
6) They learn computer skills, e.g. data entry, data analysis using software like EPI-6 and EPI-2000 or SPSS for the analysis, display of data, etc.
7) They learn to do Literature search by adopting various measures, on computer, books, journals, discussion with teachers and seniors, etc.
8) They learn to prepare power point presentation to present their project and learn the constraints of time in presentation in scientific sessions
9) The students are encouraged to publish original articles if the teacher feels that the work is of publication quality
10) Clarity of the subject, logical thinking and simple, innovative and appropriate actions the academic gains
11) They did realize the difficulties of research and how to overcome them.

**Communication Skills, Public speaking skills & Team spirit:**
1) They develop communication skills
2) They learn to do work in a team and understand the group dynamics
3) They develop team spirit and learn the importance of co-operation working in a group
4) The project execution involves active interaction of students with teachers and thus student teacher relationship is strengthened. This helps in day to day evaluation of the student as recommended by MCI and University. All students are encouraged to participate actively and this is monitored by the teacher and punitive action is taken if any student is inactive or irregular.
5) If the project involves interaction with other departments of institute, e.g. they learn to get the co-operation from them.
6) They learn to interact with other institutes, (other than their parent institute and hospital) and the personnel there if they do any project there; they learn to get the co-operation from them.
7) They get the experience of seeking permission at each level, building good rapport with each other, taking consent of the study subjects, respecting the confidentiality and helping the subjects solving their problems.
8) They learn the importance of working with limited resources and keep their innovative and appropriate technology interventions as simple as possible.
9) Health Education is done in every project whether Health Education intervention is done as a part of research question or not, thus the people get the benefit of increasing the awareness in all aspects of the problem they are studying in the community
10) Students develop good human qualities of perseverance, empathy, compassion towards the people and develop the attitude of helping the needy to the extent they can do.
11) They develop faith in people, try to give their best to them and promote community participation.