CHAPTER III

PROPOSAL

Action Research to Increase Assisted Delivery by Midwifery Trained Personals Through Reorientation and Continuous Quality Improvement of Antenatal Care Services in National Referral Hospital, Thimphu, Bhutan

3.1 Introduction

The magnitude of maternal health problem in the world is akin to an airplane crash every four hours with 250 full of pregnant or just delivered women (Yannick et.al.1994). It makes nearly 1600 deaths daily. Ninety nine percent of them come from so oft mentioned developing world. And most unfortunately every four hours it crushes on to the already overburdened hapless part of the world. It strikes the poorest sections of the society. These are not the accidents or happenings by choice of luck or destination. Is an avoidable mishap. Available interventions are cheap and effective. It calls for commitment from policy makers and zeal, to make it happen, at the operational level.

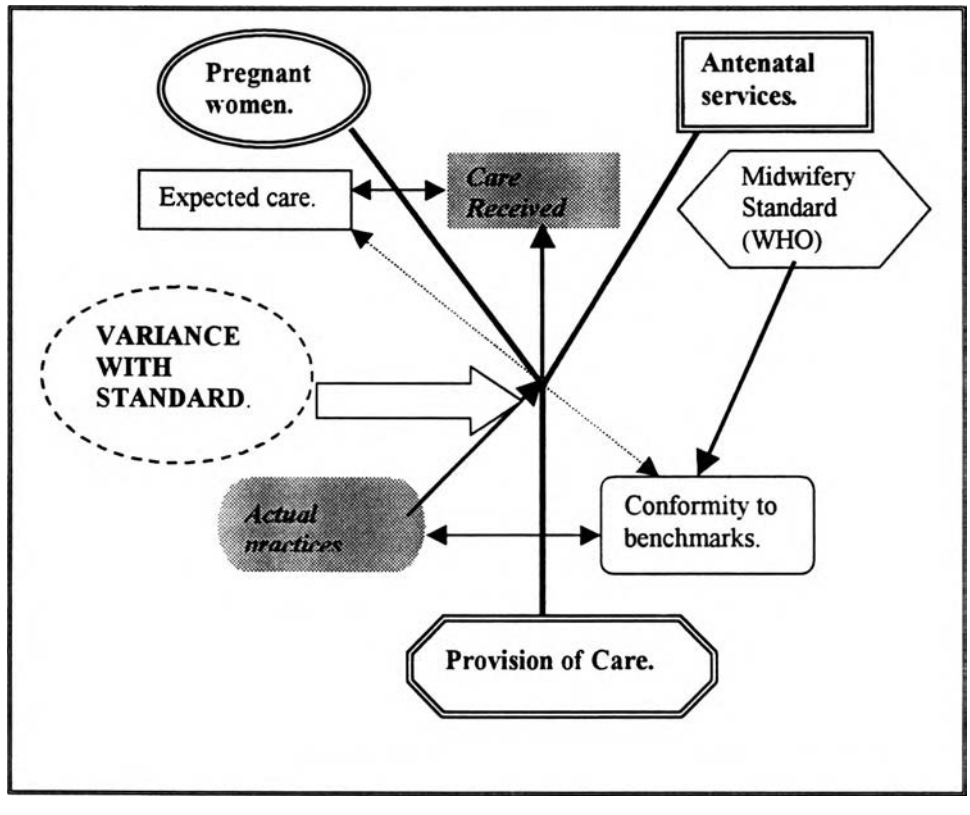
Owing to its frequent occurrence we at times become numb to such day-to-day phenomenon. We ought to not so be inert. We turn to poor resources or inadequate skills and many more for our inability to do something and at times blame victims for not using the available resources. Interventions can be done within the limits of ones resources. It has been proved (World Bank 1999) that investing in the maternal child health is the most cost effective. So channeling resources into the cause of the maternal health will give better return to the country in general and the family most specifically.

There is a need to eke out most relevant information for the type of intervention that is economically feasible and culturally acceptable. This has to be within the context of our development. The information will help policy makers to reset their health agenda. And shift focus to developing and strengthening health system. Management at every level must realize the fact. Policies may exist, funds may have been allocated adequately but the will to do lies in the hands of those who are in contact with the clients. So information generated at the local level will stimulate people to take action. And will enhance productivity of the health care provider and build organizational capacity. The program will become efficient and effective. Which will make pregnancy safer by minimizing maternal health risks.

Of all the known determinants of the maternal health status, studies have shown that health services have strongest association specially availability of emergency obstetric service during the childbirth. Poor quality, substandard or inadequacies or sub-optimal care terms are used to define nonconformity to gold standards or from the client perspectives a callousness or non-responsiveness of the health care system. A

study in the Saudi Arabia gives a figure of 78% maternal deaths related to substandard care. Similarly 77% (Urassa Ernest.et.al.1997 pp.54.) of the maternal death in Tanzania has been attributed to sub-optimal care. There are numerous stories and studies that indict health services for not performing the way it should be in the provision of care to the mothers. This boils down to quality of care. It here means "conformance to requirement or specifications". Philip Crosby.

Figure 3.1: A Conceptual Framework for Variance analysis.



Adapted from Applied Strategic Planning "Y" 3D,gap analysis, Goodstein.

From this conceptual frame for analysis it can be seen how the services are provided under an appropriate technology will determine the type of care received

which of course is to do with the process at the system level and the perception of the clients. Hence bringing the client's needs and meeting them after the learning the problems in the system and rearranging them will minimize the variance.

Data exercise in the National Referral Hospital in Thimphu, it was observed that many components of antenatal care was not conducted in accordance with midwifery standards. The secondary data in the ANC revealed that 45.38% of high risk identified did not receive adequate referral advice. Patients' reception at the registration area was shown as poor (53.1%). And 28% of women did not know their dates for their next visit. Despite their contact with the services 24 %(n=50) they would still prefer to deliver at home. So there were lots of deviations from the expected practice in the clinic. The observations had been made from point of assessing provision of care and way health education was given. This might not reflect the whole story but it is snapshot which will give a fair knowledge about whole process.

The most striking feature was the reception area, which was quite cold, as it was taken during the winter. There were not many benches for the ladies to sit. It was compounded by the fact that they had to wait for quite long time. The examination room was where women would hardly like to undress for check up. It was cold and congested. Most of time the doctor was absent when referral was required; the client would have to wait for doctor.

At this point it is pertinent to mention that with increasing health coverage, which currently is 89.1% within three hours of walking distance. And rapid

development of health services and OPD utilization is 1.6 visits per person per year (1991) it is important that there are minimum deviations from the standards. There is a need to focus on total quality management across all the programs and especially to those preventive cares because they are still the best. Quality stimulates people to use services both at the community and institutional levels. Hence keeping continuous quality improvement, as the basis and assuming that the top management will support the issue will take up this research project. This approach to takes concept of 'health worker for change, a quality of care intervention' as my intervention strategy (Ane Haaland., et.al.2001). It begins from the premise " Health providers must have skills to evaluate their own practices and be more accountable for their decisions. The practitioner must fulfill the heightened expectation and demand of consumers for quality and accessibility at reasonable cost. Research must shift from the traditional study of input (e.g., personal, facilities, technologies, procedures, and drugs) to the evaluation of health care output." (Sitthi-Amorn,Chitr. 1995).

3.2 Rationale:

Minimizing the gap between the actual practice and the desired or the best practice will increase demand for institutional and midwifery trained personals this study embarks upon participatory action research methodology. Given our constraints of having less number of qualified researchers, this will be an opportunity for capacity building, as the staffs from the clinic will be involved in the problem identification,

analysis, plan, and implementation and evaluation. This will bring the decision-making and *problem solving close to information source*.

The study will be conducted in National Referral Hospital, as it is also teaching hospital for the paramedics like nurses and technicians. It will enhance district manpower capacity when they get posted to the districts.

In order to understand the approach of continuous quality improvement let me put forward this definition and see why we would need the quality in the health care at all. Quality improvement is defined, as "Quality improvement is the effort to improve the level of performance of key process It involves measuring the level of current performance, finding ways to improve that performance, and implementing new and better methods." (Donald .M Berwick 1990 as cited by Engender Health. 2002.)

The reasons for the quality in health are as follows:

- Increased demand for effective and appropriate care.
- Need for standardization and variance control
- Necessity for cost saving measures
- Requirement to define and meet patient needs and expectations.
- Desire for recognition and strive for excellence
- Competitions
- Ethical considerations.

And of all the most fundamental reason for quality is to meet the needs and expectations of clients both internal and external. The external clients are our pregnant

women and the internal clients are the health care providers. In between we also must meet the expectations of the husbands and other relatives.

Thus quality will address all these issues for which PAR approach is suitable at this juncture, where researchers will not have detached stance and problems will be identified with the root causes and resolve it on the spot by staffs themselves. So the team will understand that it is transformational processes where the staffs (team members) are very proactive and open minded to look at the problem not from finding fault but finding the reasons to the main causes.

- Allow team to look into process instead of finding fault with the individuals
- Appreciate cost reduction due to rework, waste, etc and appreciate the efficiency of the system.
- Training and retraining of the staffs, and chance for continuous learning.
- Appreciate the client mindset, as the quality will involve satisfying client needs.

So PAR., as it is cyclical process, of problem definition, data gathering, feedback to the client group, discussion of data, action planning, action taking and evaluation; skills are learned, a new knowledge and most importantly practical problems are solved. Tools will be observations, questionnaires and open-ended questions during the focus group discussions.

3.3 Research Questions

1. Will reorientation of current practices in antenatal care services improve quality of antenatal care and result in increase in demand for midwifery trained personals or institutional deliveries?

2. Do processes of continuous quality improvement in antenatal care services have role in bringing down the variance in the practice and more number of ANC attendees opt for trained deliveries?

3.4 Objectives

3.4.1 General objective

To increase number of deliveries assisted by midwifery trained personals among the antenatal clinic attendees by quality improvement process in ANC care services in National Referral Hospital, Thimphu.

3.4.2 Specific objective

1. To find out differences in the real practices and what is prescribed in the standards.
2. To define client perception of trained deliveries among those who attend ANC clinic,

3. To find out reasons for late initiation of antenatal registration among women.
4. To measure rate of non-compliance of ANC referral of clients to maternity wards.
5. Find out the ways to increase ANC productivity with reference to overall hospital administration.

3.5 Methodology

3.5.1 Method.

The method of study is participatory action research in continuous quality improvement making use of the concept of health workers as change agent employing both qualitative and quantitative approaches. In this study the methodological guideline as given by Dr. Selender, and EngenderHealth is being used.

1). Entry 2) Formation and training of action research team 3) Problem identification 4) Data collection 5) Data analysis 6) Data feedback 7) Problem diagnosis 8) Action planning 9) Action implementation and 10) Evaluation.

3.5.1.1 Entry (plan).

During this phase all the administrative clearance will be obtained and the management's commitment will be reaffirmed. The real need to do something in the antenatal must be felt by the hospital administration so that research will be conducted

smoothly. The clearance may be discussed during formal occasion or in during informal sessions but commitment will finally be in the contract form. *All the ethical requirements will be worked out and clearance obtained.*

- Inform all group members
- All the staffs will be identified and familiarize with the set up.
- Management will be informed for some changes that will occur on the course of time.
- Understand the values of the organization.
- Some preliminary discussion wit the members to held
- Members should express their views on the issues, a rapport to be established.

After understanding individual members roles and responsibilities and terms of references, a time schedule will be drawn, enlist all the resources required, and take stock of all the confounding factors next phase will be drawn with first two months.

3.5.1.2 Formation and training of action research team.

The team will consist of a senior gynecologist, a senior medical officer from reproductive health unit, five permanent staffs of Antenatal clinic, one senior staff nurse from maternity ward, one staff nurse from pediatric ward and staff nurse from postnatal clinic. They will have fairly sufficient knowledge in the field of maternal care and should show some interest in the research. They will be inducted after initial discussion during the entry period.

3.5.1.2.1 Workshop &Training for the members.

Day I. Workshop.

The day will be basically devoted to look into WHO's " Standards of Midwifery Practice for Safe Motherhood" Regional publication, SEARO, No.38.1999 and modify some country midwifery standards. It will be to familiarize with the terms and to clearly understand accepted level of deviation to be allowed or we should consider "Zero defect" norms. So the team members will have agreed term of reference.

Day II. Training

a) Session on the principles of the participatory action research for half day.

b) Define objectives of research, while defining goals it will be kept flexible, open to change depending upon the situation that will ensue during the process of research and will be of importance to the team and the organization.

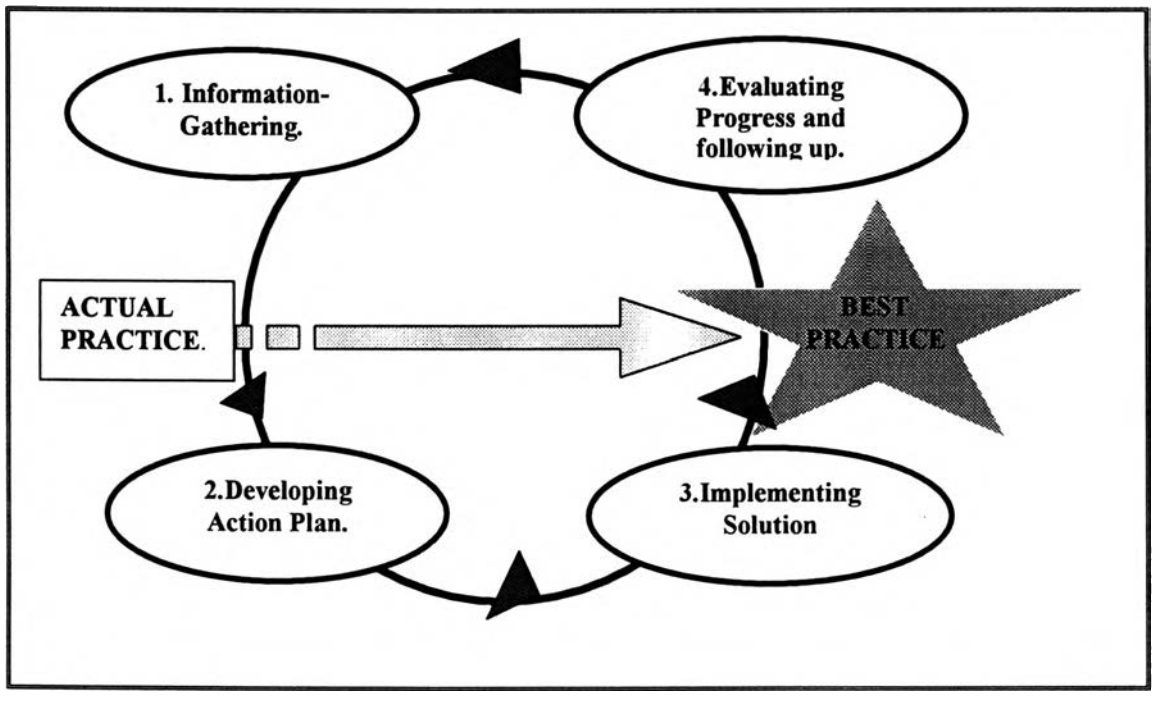
c) Training will be conducted on the *group dynamics* and *conflict resolution* and research technique. The team will be working in an environment of mutual cooperation and understanding. The working relationship will be based on nonhierarchical behavior. This will be fostered team spirit.

3.5.1.3 Problem identification

From this section onwards the team will follow the quality improvement process, which has similar process any problem-solving model, it will lead to finding

out gap between the actual practice and the standard (Best Practice). The team will be required to look foe any that will lead identification of problem in the clinic may it due to man, drugs or medicine and or the equipment. So they will be looking into all the factors. The team will follow cyclical steps,

Figure 3.2: Showing cyclical inquiry while moving from actual to best practice.



Source: Engenderhealth. 2002.pp.26.

While going through the cycle identifying problem and causes of the problem team members will be able to pick up issues, which influence quality of clinical standards, managerial and logistical aspects.

1. ***Information Gathering and analysis.***

- Purpose will be to assess the gap between actual practices and desired practice in ANC services.
- Tools Antenatal Audit tool, client exit interview, registers and record assessment.

This process will be undertaken in small groups of two and groups will examine the different aspects of the problem and at every point they will poise and look into cause of the problem. Analysis will be done in smaller groups during collection and define the problem and the team members of sub-team will agree on the problem they have identified. Then the sub-team will recommend;

- the agreed solution
- Address root cause(s).
- Team will find out some successful practices in other units
- Solutions will be usually those staffs will be able to take up and is within the means,
- Complex solutions will be discussed in the larger groups and all the findings will be recorded and discussed during monthly meeting.
- Then the team will identify people by name that will implement solutions within given time frame.
- All the findings will be presented in the larger group during the meeting.

2. Develop Action Plan

After the information gathering the team will have already prioritized the solution, the team will meet to prioritize action plan by problem importance and solution feasibility, for this certain criteria will be set to guide prioritization e.g.. Does the problem pose exclusion of risk factor identification? Or will the changes result in better follow up of the patients. Or is it possible to address problem within available resources i.e. it is doable without many hassles like updating all the record for tomorrow's expected clients. Staff will have to see whether the solution would require outside help and how fast or how long will it take to implement.

After prioritizing the problem and its solution an action plan will be developed each problem will be assigned dates for implementing solution as in the problem identification people responsible will be identified with deadline for the accomplishment of the activities.

3. Implementing solution.

This is the third step in the cycle; actions agreed upon in the action plan will be implemented. The action plan will be displayed in a prominent place and every members of the team will carry out the activities besides their normal duties. During this phase the progress will be monitored regularly during the staff meetings and will also consult each other if problems arise. Implementation stage will face many problems as changes are being made so there can be some unpleasant moment, which will require patience and ability to resolve conflicts.

4. Review Progress and evaluating results.

The team will come together to review, the action plan, assess progress made on the implementation and decide on the follow up steps. It will be done in the following manner,

- During routine staff meeting
- Meeting of the hospital committee meeting
- Action plan development meeting
- And during annual review meeting.

During this meeting, review on the action -plan progress including what worked and what did not work will be probed. Depending on these a revision of the action plan will be decided. Further need for follow up, assessment and or information-gathering activities will be agreed upon, which will further lead to step one again. Thus cycle will continue when we know from the evaluation how close we are to best practice and reorientation in the clinic has actually taken place.

3.5.2 Study population

1 ***Members of the team.***

The staff from the Antenatal clinics	5
Senior gynaecologist	1
Senior Medical officer, from reproductive health unit.	1
Staff nurse from paediatric ward (New born)	1
Staff nurse from postnatal clinic	1
Senior staff nurse from maternity ward	1

2 Client Exit Interview (Antenatal attendees)

3.5.2.1 Sampling

A systematic random sampling for rapid evaluation of the antenatal attendees will be done to know about their level of satisfaction with structured questionnaires that will be taken up as exit interview. Since it is rapid appraisal 30 mothers will be taken. This will spread over whole week; numbers will be spread out equally for both morning and evening as clinic rushes differ both on week days and during hours of the day.

For staffs it will be purposive sampling for all the staffs in the antenatal clinics, all the staffs of maternity ward, post natal and pediatric wards.

3.5.3 Instruments

WHO's Midwifery standard audit tools (antenatal).

Exit Interview questionnaires

Medical record reviews.

Client flow analysis in the clinics assesses waiting time.

3.5.4 Data Analysis

Quantitative.

Data collected from the audit tools (antenatal care), client exit interview and the data from the medical record will be analyzed using simple descriptive statistics such as distribution and frequency using SPSS software.

Qualitative.

Qualitative data from in-depth interviews and focus group discussion using open ended questions will be analyzed and tabulated for descriptive analysis.

3.6 Study Period

It will be for twenty four months.

- 2 months for entry preparation
- 3 month gathering data, analysis and problem identification.
- 6 months Developing action plan
- 12 months Implementation and monitoring
- Lastly **one month for evaluation** and forming next cycle.

3.7 Study Setting

Will be conducted in the Antenatal clinic at the National Referral Hospital, Thimphu Bhutan.

3.8 Monitoring

Apart from being continuous during four steps monitoring will do following on a regular basis,

- Provide guidance and support to complete task.
- Readjustment of unrealistic timeline
- Involve others if the original person responsible is deemed inappropriate
- Exploring together with staff alternative root causes and solution to the problem
- Rethink a solution that has turn out not feasible.

3.8.1 Evaluation

- Will be seen as positive change in staff performance
- Gap between the actual practice and the best practice would have narrowed
- Clientele satisfaction is better than before intervention.
- In the end of second year number of antenatal attendees would have chosen midwifery-assisted deliveries to home deliveries.

The evaluation result will determine whether changes in the quality of services have at all affected perception of mothers for deliveries, and whether there was any improvement in the performance and lastly if clinic's outlook have been revitalized.

This will be measured with the base data collected before and final data, which will be collected at the end in addition to changes observed during whole period.

3.9 Activity Plan

Table 3.1: Activities plan

Activities	Year 2003												Year 2004											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
1. Entry Appraisal																								
- Administrative Clearance																								
- Securing Budget.																								
2. Workshop with PAR expert.																								
instrument testing																								
3. Data gathering																								
4. Monthly Meeting & Review																								
5. Monitor Progress & Review																								
6. PAR visit and Develop																								
Action Plan.																								
7. Finalize Action Plan																								
8. Organise and Implement																								
Action Plan.																								
9. Monthly Meeting & Review																								
10. Mid Year Review																								
11. Prepare annual review																								
12. Final Evaluation.																								

3.10 Budget

The budget is prepared based on the present US dollar exchange rate in Bhutan which is equivalent to 1US $ = Nu.48. The budget can be acquired through regular government research budget.

Table 3.2: Research activities budget outlay for two years (2003-2004).

Sl.No.	Particulars.	Qty	Rates in US$.	Amount In US$.
1.	PERSONALS			
	a). Researcher (18months)	1	200 monthly	3600
	b).Research assistant (18 month)	1	120 monthly	2160
	c).Team members for 24 months	10	250 once	2500
	d).PAR expert 20days X2=40days.	1	90 per day	3600
2.	TRAVEL EXPENSES			
	a) en route for PAR expert (Air)	_		1600
	b) Local travel cost (car hiring)	_		550
3.	MISCELLANEOUS			
	a) Stationary			600
	b) Secretarial Support			400
	c) Refreshment and gift.			1200
			Total.	**16210**

3.10.1 Budget justification.

The participatory action research will be conducted in the National Referral Hospital beginning from 1st January 2003 for two years, which means it will wind up by the end of year 2004.

The budget is calculated at the current US dollar exchange rate and the fixed prevailing salary structure in the country. So this may vary by the end of the research by some percentages but assuming these to be negligible it has been proposed.

1. Researcher: A full time researcher will be required for a period of 18 months to monitor the research, though it is action research and will be conducted basically by the staffs in the clinics. The researcher will be responsible for constructing all instruments and to document all the findings and to discuss with the team. Since the hospital does not have any researcher it will have to hire someone with good research background from within the country or from outside. The monthly salary is fixed at US $ 200/-, which comes to Nu.9600/- as, consolidated pay.
2. Research Assistant: One research assistant will be essential for the activity, he will be responsible for drawing up all the activity plans and managing data that will be generated, organizing monthly meetings and informing the team members and appraising the hospital authorities at a regular interval. He will be constantly in touch with both the team members and the researcher. He will receive a fixed pay of US$.120 per month which equivalent to Nu.5760 as consolidated pay.

3. Team Members will be paid US $ 250 as incentive for the work. It will be divided into two halves and first half will be paid in the first year and other half in the subsequent year as installments to maintain continuity and zeal. This comes to US$ 2500, which is Nu.1200000/-. This very essential so that people do not drop out thinking that they have nothing to gain.
4. Participatory action research expert as consultant will be required, as we do not have anyone in the country who can guide the researcher and the team. So the expert will be required twice, once during the entry period and to conduct workshop for the researcher and the team members, this will be for at least twenty days. And the next will be before the development of action plan. The total expenditure including the travel and the local hospitality is kept at US$.5750. This is the heaviest expenditure, we can make some adjustment in number of days and can save from this amount after the first visit.
5. Stationary and secretarial support is kept at US$ 1000/- which will used for the printing of forms and development of formats for the research and printing of pamphlets and posters which will be required during the implementation stages.
6. Miscellaneous for gift and refreshment, budget is US $.1200.this is spread over two years. This will be required for light refreshment during the workshops and during the monthly meetings and to purchase small gifts for mothers during the interviews and while visiting clients during home visits for in-depth interview in the home setting. Other expenditures like office, office equipment and man will be used from the hospital for which no cost is added.

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