

**AN ANALYTICAL STUDY ON THE ROLE OF THE PROMISING
MIDWIVES FOR THE DEVELOPMENT IN THE HEALTH SECTOR
OF BANGLADESH**

BY

A.B.M. Golam Morshed Khan

ID: 191-25-749

MSc in CSE

Daffodil International University

This Report Presented in Partial Fulfilment of the Requirements for the Degree of Master of
Science in Computer Science and Engineering

Supervised by

Narayan Ranjan Chakraborty

Assistant professor

Department of CSE

Daffodil International University



Daffodil International University

Dhaka, Bangladesh

December 2019

APPROVAL

The Thesis titled “An analytical study on the role of the promising midwives for the development in the health sector of Bangladesh” submitted by A.B.M.Golam Morshed Khan, ID No: 191-25-749 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of M.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 06-12-2019

BOARD OF EXAMINERS

Dr. Syed Akhter Hossain
Professor and Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Chairman

Dr. Md. Ismail Jabiullah
Professor

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Dr. Sheak Rashed Haider Noori
Assistant Professor & Associate Head

Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Dr. Mohammad Shorif Uddin
Professor

Department of Computer Science and Engineering
Jahangirnagar University

External Examiner

DECLARATION

I hereby declare that this research monograph has been done by us under the supervision of Narayan Ranjan Chakraborty, Assistant Professor, Department of CSE Daffodil International University. I also declare that no portion of this research monograph has been used in any degree, diploma, acknowledgement, title and recognition before as to the best of our knowledge.

Supervised by:



Narayan Ranjan Chakraborty

Assistant professor

Department of Computer Science and Engineering

Faculty of Science and Information Technology

Daffodil International University

Submitted by:



A.B.M. Golam Morshed Khan

ID: 191-25-749

Department of CSE

Daffodil International University

ACKNOWLEDGEMENT

First of all, I would like to thank Almighty for everything I have been blessed with including my completion of rigorous academic task of M.Sc. this research monograph in due time. I also owe a great debt of gratitude to my respected teacher, **Narayan Ranjan Chakraborty**, Assistant Professor, department of CSE, who was my supervisor. It was none but my teacher whose valuable direction and vast knowledge helped me to reach my goal to complete my research in time.

And I would like to convey my special thanks to Prof. **Dr. Syed Akhter Hossain**, Head, Department of CSE who always helped me to finding all necessary books, data and other relevant materials whenever I needed. I am also grateful to all my teachers of my beloved department whose unbound generosity and dedication helped me accomplish the task. My greetings is for my family, friends and to whoever extended their hands in assistance.

ABSTRACT

‘Women are not dying of diseases we cannot treat; they are dying because societies have yet to make the decision that their lives are worth Saving-Mahmoud Fathalla’. We cannot hope to get a better future not saving the lives and helped of our mothers. So ensuring save motherhood is a mast and as a state to the then Prime Minister’s commitment in 2010 in UN General Assembly came into light through deploying 1149 midwives in 2018. Before that measures were taken for their educational betterment a-three-year diploma in midwifery and after completion of diploma, they have to sit for PSC examination and been deployed. Midwifery is a novel profession. It has to be spread out all over the country, training and education facility should be widened up, they should be deployed in urban areas and in general hospitals also and more over public awareness should be raised through organizing programs regarding the practices of midwives. In doing so the research will show the challenges and options for Bangladesh.

LIST OF ABBREVIATIONS

UHC= Upazila Health Complex

USC= Union Sub Center

ANC= Antenatal Care

GBV= Gender Based Violence

LDC= Least Developed Country

C-section= Caesarean Section

Govt. = Government

BNMC= Bangladesh Nursing and Midwifery Council

DGNM= Directorate General of Nursing & Midwifery

DGHS= Directorate General of Health Services

TABLE OF CONTENT

CONTENT	PAGE
Board of Examiners	i
Declaration	ii
Acknowledgement	iii
Abstract	iv
List of Abbreviation	v
List of Figures	viii
List of Tables	ix
CHAPTER 1: INTRODUCTION	(01-04)
1.1 Introduction	1
1.2 Motivation	1
1.3 Rationale of Study	2
1.4 Research Question	3
1.5 Expected output	3
1.6 Report Layout	3
CHAPTER 2: BACKGROUND	(05-07)
2.1 Introduction	5
2.2 Related Works	5
2.3 Research Summary	6
2.4 Scope of the problem	7
2.5 Challenges	7
CHAPTER 3: RESEARCH METHODOLOGY	(08-09)
3.1 Introduction	08
3.2 Research Subject and Instrumentation	08
3.3 Data Collection Procedure	08
3.4 Statistical Analysis	09
3.5 Implementation Requirements	09

CHAPTER 4: EXPERIMENTAL RESULT AND DISCUSSION	(10-24)
4.1 Introduction	10
4.1.1 Who are Midwives	10
4.1.2 From when Midwives been deployed	10
4.1.3 Number of Deployed Midwives	11
4.1.4 Places of practice for Midwives	12
4.1.5 Number of student Midwives	12
4.2 Experimental Results	13
4.2.1 Real Feature regarding the practices	13
4.2.2 Comparative Scenario in child birth 2017-2019	19
4.3 Destructive analysis	22
4.4 Summary	24
CHAPTER 5: SUMMARY, CONCLUSION, RECOMMENDATION	(30-32)
5.1 Summary of the study	25
5.2 Conclusion	26
5.3 Recommendations	26
5.4 Implication for further study	27
References	29
Appendices	
Appendix A	30
Appendix B	31

LIST OF FIGURES

FIGURE	PAGE NO
Figure 4.1 Comparative Analysis for Total Number of Midwives According to Divisions	12
Figure 4.2 Comparative Analysis based on Division	15
Figure 4.3 Division based ANC analysis	17
Figure 4.4 Comparative Rati among divisions on GBV support	19
Figure 4.5 Percentage of normal delivery 2017-2019	20
Figure 4.6 Percentage of Caesarean Section 2017-2019	21

LIST OF TABLES

TABLES	PAGE NO
Table 4.1 Chart of Deployed Midwives	11
Table 4.2 Number of Deployed Midwives in Divisions	11
Table 4.3 Data on Student Midwives	12
Table 4.4 Feature on Normal Delivery by Midwives	14
Table 4.5 Feature on ANC by Midwives	16
Table 4.6 Feature on GBV Support by Midwives	18
Table 4.7 Number of Normal Delivery by Midwives and Nurses	20
Table 4.8 Number of C-Section by Midwives and Nurses	21
Table 4.9 Ratio of Maternal Death in Divisions	22

Chapter1

Introduction

1.1 Introduction

Safe motherhood is a women's right to choose as well as their right to survived. A safe motherhood is a blessing for our society to give a safe child who will be as asset for us. Midwives are burdened with such duties to decrease the maternal death into zero by 2030. Again, as midwifery is a new concept for us, government is taking much initiatives to widened this up. Every year 1565 students being graduated in a-three-years diploma course in midwifery. It is obvious that when the care givers are skilled and educated enough, the health sector would be the prime beneficiaries. From the data analysis it can be inferred very quietly that midwives are playing a vital role in the field of health sector. 55 government and non-government organization are providing education to create new midwives. Again, their posting is provided in different UHC and USC. As this is a new concept, to increase the education and training facilities government should take necessary steps. Again, stablishing a web site that would be regarded as a public domain to get all sort of information of the midwives and their skill, technique, education, facilities etc. This will create awareness among the mess people the rate of unnecessary caesarean section will decrease because the people will have faith upon the midwives as well as those skilled midwives will teach people regarding the health benefit of the child and the mother. Again, taking care from midwives is cost friendly also. So, the women below the poverty line will also get the equal health care which is her right actually. So keeping duly authorized data will help the expansion of the midwifery sector.

1.2 Motivation

Where safe motherhood is a right of a women that has to be ensure by the society she lives, but it is the matter of regret that society fails to protect her life as well causing maternal death or leading her to a vulnerable life. To ensure the health protection is the crying need for the society because a healthy child is the asset of a nation. Considering this a footstep to such health protection that to be assured was creating the noble post midwifery. Education and training facilities are the key point to prepare a midwife as a skilled and trained as per the need of the society.

Bangladesh is a densely populated country. Most of the people live below the poverty line. Without having institutional education, they are covered under the darkness of ignorance. So providing them with health protection basically to the women is a challenge.

Midwives are working hard for serving the nation the moto is the decrease the maternal death to zero by 2030, bring every new-born care at the free of cost or with nominal cost. Now the question is if the service provided by the deployed midwives are sufficient.

Though creating the post midwifery is a very befitting decision, but the man power is much lesser than the need of the society. Hope to increase the number in near future and the society will get skilled and efficient midwives to serve. But analysing the data collection from different sources it is inferred that the development of the midwifery is to cope with some social shortcomings. The interview to the different strata of people shows that some portion of people are totally ignorant about it. Some are living are urban area do not get the facilities of midwives. In this thesis it is going to have a total analysis on data about the practices and strategies of midwives. If a database can be stablished providing input of all sort of information on the pros and cons of the midwives and it should have public access, so the mess people can get the knowledge about this noble profession so to want to get the facility for health protection and some will be interested to be midwives to serve for the nation as well.

1.3 Rationale of the study

It will not be overstatement to say that finding and collecting data regarding the midwives practicing in different UHC and USC was a tough job. Lack of reading materials like books, journals, articles make the job tougher. So the main way of collecting the data was the field visit and from other related ministry and concerned government offices to ensure the accuracy at its best to the data collected.

The data regarding the midwives should be preserved in a public domain so to make it transparent to all. From different data analysis it is found that the initiative taken for the expansion of the midwifery profession is not running enough. Though it is a new phenomenon, data should be served and preserved with due care like other different countries where midwives are very well known and well equipped also. A critical analysis on data from different perspective are done to show the present scenario of the field of midwifery

profession and to what extent it should be developed a lot included in the findings of the study.

1.4 Research Questions

This research attempts to address the following questions:

- a) Is the number of deployed midwives sufficient to serve for the nation?
- b) Is the service provided by the midwives is enough to reach the goal of zero maternal death?
- c) Is there any drastically change in the comparative ratio of child delivery after the deployment the midwives?
- d) What are the loopholes in collecting data regarding the services provided by the midwives?
- e) What would serve best to collect the service data in a systematic and easy to access way?

1.5 Expected output

The main expectation from this research monograph is to find out a best way to collect and preserve service data of the midwives in an organized way and that would be accessible by the general public. So they can get clear and transparent concept regarding the practices of midwives. Again it is aimed to find out the loopholes in the field of service of midwives that hinders the path to success of the midwives. The focus of the thesis is to find out the best way to solve all the backdrops and find the best suited solution for the smooth running of the midwifery profession.

1.6 Report layout

To attain the purpose of the thesis and to ensure clarification the very first chapter here deals with the introduction to the research monograph. Where the subject, motivation of the thesis and the brief of the thesis, the research questions what are going to be described throughout the thesis are inserted. In chapter two here comes the background of the thesis and indication to the purpose of the thesis and the challenges as well as scope of the problems are described. The next chapter is named as research methodology deals with mainly the research subject, the way of collecting data and last but not the least the analysis based on those collected data

to attain the purpose of the research. The chapter four is the experimental result that is portraying the main analytical part of the research starting with some conceptual clarification and the data analysis to show the role of the promising midwives in health sector of Bangladesh and the practical statistical feature. The last chapter includes the summary of the research and the recommendation for further benefit and solution to the loopholes. The further study or implication draws the way of success to the thesis.

Chapter 2

Background

2.1 Introduction

The pursuant to the commitment of the then Prime Minister in 2010 in UN General Assembly the post midwifery has been come to light. It is a very new concept in Bangladesh. Though in international platforms midwives are very well known and place the most important role towards a safe motherhood. The very first deployment took place in June, 2018, starting with 1149 midwives and they are being posted in total 349 Upazila Health Complexes and 29 Union Sub Centres. The number is so nominal comparing with the amount of women to be served. The other thing is that the deployment only happened to be posted them in Upazila levels. So, the districts and other government hospitals are not getting any skilled midwives. That does not mean that district government hospitals have care givers. Rather the nurses posted there are also nominal in number comparing with the pressure of the patient. Again the people here come to get treatment are not always satisfied with what she gets. Midwifery is such a sector that is developing continuously. But already are lagging behind for some related problems like the ill data collection procedure of their services. While the service data are not properly maintained, then their practices, extent of development, training facilities all are getting into a vague concept. But if the procedure is very easy and properly maintained then it shows the accurate ratio of the services provided by the midwives. So the further development plans can be sets in an exact form.

This research monograph establishes the name of proper data collection process by critically analysing the data from different perspective.

2.2 Related Works

As it being a new phenomenon, there is no such journals, articles regarding the success of the midwives or the future planning structure or any constructive criticism regarding the midwifery sector. The books and journals all are the write ups of the provision regarding the education and employment. But the point is different. Though 55 institutions are providing educational facilities resulting 1565 midwives are graduated every year, it is not enough. The number of midwives are so nominal comparing with our densely populated Bangladesh. Here

the rate of child birth is 18.2 in per 1000 people (Gov.t Survey,2018). So, the only one midwife is serving to a large number of people approximately two to three hundred. To ensure better service this sector should be utilized to the fullest extent. So attention should be given and that is possible only when this sector being analysed through news, books, journals etc. It will increase consciousness among the mess people and also the govt. and not govt. organization will come forward for the betterment of this sector.

2.3 Research summary

The deployed midwives are started to work with different UHC & USC. They being a lesser amount of deployed midwives are only serving in the rural areas. It is a positive site that the rural ignorant women are getting benefitted by service provider to them. At the same time midwives are not only providing health protection and treatment, rather they are also ensuring them they are right to be protected and providing them also with mental in some extend legal support. The new-born care is also a great approach of the midwives that they ensure a safer world for a healthy baby with proper vaccination and nutrition tips. The women are now being ensured of her right to survive as well as having a safe motherhood but the point is midwives are being deployed at nominal rate comparatively to the need of the society. If the number of the deployment can be increased they will serve for a large portion of people with their knowledge and modern skills and techniques.

The number of midwives will rise only then if the number of the instruction providing education and training can be increased. This can be possible with the patronage of the both govt. & non-govt. organization. If the education and training facilities are expanded over, a large number of promising midwives will help the nation with the dedication soul to their work. The present data collection procedure regarding the service provided by the midwives. In their workplace is very hazardous and unorganized. So the data collection procedure is not upholding its accuracy rather take a long time to be processed. So a big data server should be enrolled as early as possible to make this procedure easier and organized. Both the midwives and the general people will get benefitted through this data server.

The proper training facilities with modern books, equipment are the carrying need, Installation at a midwifery lab, library and computer lab is the prerequisite for the expansion of this sector. All these facilities can be provided if there is a properly well-equipped big data server can be operated.

2.4 Scope of the problem

This research is based on a critical data analysis that to attain the main focus of the topic. Actually by analysing data the present scenario, the loopholes, the challenges are being clearly defined here. The study is based on the data on 1149 deployed midwives, the service data from 2017,2018,2019, the consensus on the ration for different perspectives, 1565 student midwives etc. All the data presented here are competent with high accuracy as collected from reliable sources. As it is an empirical study all the issues may not covered here due to time constraint. Again, as it a very new concept not much reading material are available. The another thing is that the interview had some limitations that it was taken through a questionnaire from the very limited and concerned authority. Interview from the very root level was not possible due to the financial and time constraint.

2.5 Challenges

Collecting data from different sources was tougher because all the information was not allowing free public access. Again due to the procedural hazard the data collection procedure was greatly hampered. It was very time consuming rather fruitful. Again it is to say that there is no govt. approved way of easier data collection from the midwives all over the country. So the service data provided by the midwives is also full of much hazard and so there may arise the doubt regarding the accuracy. The data that are comparatively easier to get are not providing any resolution of accuracy. So further hazardous way was to be followed to get the actual data. Having no uniform authority, it hinders the way for other person to be informed. It destroys the transparency to the whole system and public are losing hope to this regard. So, not having any easier, transparent or duly authorized body the whole data collection procedure is become a challenge.

Chapter 3

Research Methodology

3.1 Introduction

To achieve the aim of the research monograph, it has been tried to make the research in the form of quantitative and with the flavour of qualitative. All the information gathered that are relevant to the research topic was double checked to ensure its authenticity and it is can be stated that no information here is false, fabricated and against the public morality with due care and proper procedure the research monograph has been prepared thorough critical data analysis and general books journals and helped to do so.

3.2 Research Subject and Instrumentation

To the extent of the topic it was set to have an empirical study on the practice and the present situation of midwives and loopholes regarding it. As there is shortage of evidence of books, journals and articles not being developed that much, the current relevant data are to be collected to be analysed and studied. So, the main instrument was various data from reliable sources indicating the practice, ratio, number comparison of the profession midwifery. Analysing these data, it clarified the present situation, the embankments, the sectors that has to be developed, initiatives to be taken, proper data server and uniform authority and so on.

3.3 Data Collection Procedure

To complete the research primary and secondary both source of data was collected and utilized. The primary sources include here those data collected from government offices directly. The secondary sources include both data collected from different sources including books, newspapers, internet etc. and also includes the face to face interview of such 10 concerned authorities. The primary data were collected by personal field visit to BNMC, DGNM, DGHS office in Dhaka. The collected data has been analysed and presented with tables and pie charts with the help of Microsoft Excel. The interview was taken from 10 concerned authorities including directors of those respective offices. The second phase of interview was taken through questionnaire from 10 student midwife in Dhaka Nursing

College and also 10 general people coming for treatment in ‘Shaheed Suhrawardy Medical College & Hospital’ as well. For books and journal, it was helpful to find it out from the respective govt. offices and the internet has played a vital role as a source also.

3.4 Statistical Analysis

As there were two different types of statistic collected from different sources. The main statistics got was from the most reliable source that the govt. offices. So an analytical and comparative study has been done on all the data and statistics received. Again the other data has been received from the source of internet and some books that has got in the govt. offices. So an analytical approach regarding the data was given and double check, the data through collecting the same from different sources and analysis on this as per different perspectives has achieved the goal.

3.5 Implementation Requirement

Collection of data had been so tough as there was no uniform source or any duly authorized body to collect all the data in a systematic way. As the information gathered all the general information and are within the public knowledge, so the mass public has got right to get this with full transparency to all sort of information. So it is not an exaggeration that unnecessary hazard is the field of data collection is paving way of getting it, eradicating transparency, losing the faith people and are depriving them from their right to information. So, an easy uniform and systematic way is the crying need for the society to get the data properly, easily and utilized to the fullest extent.

Chapter 4

Experimental Result and Discussion

4.1 Introduction

Midwives now a day are regarded as the rising star in the field of reproductive health in Bangladesh. It is a new phenomenon that comes to existence with a light of hope for the nation because the responsibility of decreasing the maternal death and neonatal health protection responsibility are authorized to them. The vital role they play in the health sector cannot be described in words but it is a matter of regret due care with proper facilities are offered to these promising fighters in a very limited extent.

4.1.1 Who are midwives?

Ministry of health and family welfare initiated the development of a post for the smooth running of the responsibility of the government to protect the health of women and children and to reduce the maternal and the child mortality. These cadres are deployed pursuant to the commitment of the honourable prime minister in UN General Assembly in 2010 in “Every Women Every Child Initiative”. A diploma degree in midwifery is the prerequisite for being a practicing midwife and generally they got posted in different Upazila Health Complexes and Union Sub Centres.

4.1.2 From when Midwives been deployed

As it has already been stated that the post ‘Midwives’ is created as a result of declaration in UN General Assembly so at first a-three-years direct entry Diploma in Midwifery Programme was introduced in 2013 under the 2011-2016 Health, Population and Nutrition Sector Development Programme. Bangladesh Nursing and Midwifery Council (BNMC) is the regulatory body and facilitates the midwifery education programme and Ministry of Health and Family Welfare created 2996 post for midwives at the very initial stage.

4.1.3 Number of deployed midwives

After the completion of a-three-years direct entry Diploma in Midwifery Programme at first batch, 597 midwives graduated and they been officially licensed in February 2016. In 2017 at

©Daffodil International University

second batch 600 midwives graduated and got licensed. These total number of midwives been deployed after passing the Public Service Commission (PSC) examination.

Table 4.1: Chart of Deployed Midwives

Year	Diploma in Midwifery	PSC Certified
2016(1st batch)	597	597
2017(2nd Batch)	600	552
Total Number of Deployed Midwives		1149

Midwives are posted all over the country at a different ratio. They are basically deployed in different Upazila of a district. So creating a table regarding the ratio of midwives in different divisions can cast a shadow in our mind that the number is much nominal. Because the amount of people to be benefited in health protection is larger than the deployed midwives.

Table 4.2: Number of deployed midwives in divisions

Serial No	Division	Number
1	Barishal	81
2	Chottogram	195
3	Dhaka	274
4	Khulna	135
5	Mymensingh	59
6	Rajshahi	194
7	Rangpur	159
8	Sylhet	52
Total		1149

Though the number is lesser it is hoped that it will be increased in future with proper facilitation from the concerned authority. Midwives have started practicing being deployed from June 2018, as the very beginning of deploying midwives the number is such a small amount but they are starting to prove their success through their hard work in such a short duration of time. So the midwifery profession is undoubtedly a promising one that will result in success in future with proper facilitation and modification in the whole procedure of deploying, educating and training facilities.

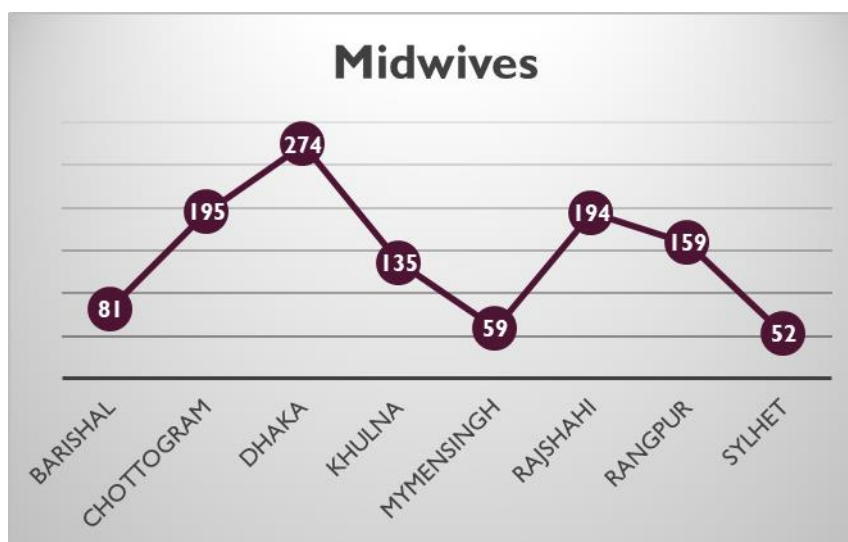


Figure 4.1: Comparative analysis for total number of midwives according to divisions

4.1.4 Places of practice for midwives:

The midwifery is undoubtedly a noble profession. They are working hard to decrease the amount of maternal death drastically. Still 38% of deliveries are being held at home and even without affording a skilled ‘dhatrī’. So the number of maternal death was increasing terribly. But the midwives had brought the light to these circumstances. Now-a-days one midwife are providing 87% of the required essential care for the women and new born and are conducting deliveries in 350 Upazila Health Complexes and 29 Union Sub Centers. Till now they are not deployed in any district hospital.

4.1.5 Number of Student Midwife:

The last deployment of midwives occurred in 2018. Now the number of students for every year in Diploma in Midwifery Programme is 1565 for 55 Nursing Institute/College among these 38 institutions are government and the rest 17 are private.

Table 4.3: Data on Student Midwives

Institution/College	Total Number of Institution/College	Students Per Year
Govt	38	975
Private	17	590
Total	55	1565

4.2: Experimental Results

Though midwifery is a new profession it is a catalyst in the path of upgrading Bangladesh into developing country. Various emphasize are being provided for the development of these midwives. But the analytical study shows the original view of the midwifery practice in health sector.

4.2.1 Real feature regarding the practices

The number of deployed midwives till now is very low. Considering the economic, social perspective the Ministry of Health and Family Welfare ordered regarding the posting of midwives to Upazila Health Complexes and Union Sub Centres. Because the grievances of maternal and neonatal death prevail in the rural areas badly. Because the people living in rural area mostly are from below the poverty line. In most cases they don't even think of to take the expecting mom to a care giver for a routine check-up. Which results in maternal or neonatal death or the child born in a worst physical condition. When a child is born, society hopes to get an asset but it is obvious that malnutrition is a curse to destroy the future.

Number of Normal Delivery

Our midwives being posted in rural areas hold themselves responsible not only to giving health protection to the mother at the same time they ensure new-born care with their educational skill. It is quite viable from the table that the progress of practice of midwives with a motto of safe motherhood is going to be come out fruitful. As the deployed midwives has started to practice from June 2018, already handled a good amount of cases and came out successfully with a normal delivery. The present situation in our country is tending the patient to unnecessary caesarean section resulting premature child birth, health risk of the mother for a long time and also effecting the child brain development. So now-a-days the midwifery is such a valuable profession that may lead the ignorant public to the light of a healthy society raising consciousness. As the midwives been practicing in rural areas, the women now get the checkup and treatment in free of cost or with nominal cost which she did not think of earlier time.

The below table is showing the consensus of natural child born in 2018 and 2019 with the expert supervision of midwives. It is inferred that midwives practicing in different divisions in different Upazilla Health Complexes.

Table 4.4: Feature on Normal Delivery by Midwives

Division	Year	No. of Normal Deliveries
Barishal Division	2018	366
	2019	744
Chattogram Division	2018	425
	2019	657
Dhaka Division	2018	410
	2019	732
Khulna Division	2018	380
	2019	879
Mymensingh Division	2018	430
	2019	679
Rajshahi Division	2018	423
	2019	880
Rangpur Division	2018	250
	2019	544
Sylhet Division	2018	320
	2019	459
Total		8,578

This table states the number of child birth according to the year 2018 and 2019 in different districts. So a comparative analysis can be done on the basis of the number of child birth in different division with the facilitation of the skilled midwives. Rajshahi district is having the highest child birth rate of 1303 babies being delivered normally. The rate is the only result on the last two years while the midwives have started their practices so it can be said that they are practicing successfully for a large quantity of people. Respectively Khulna, Barishal and Mymensingh division also showing that a large number of case has been successfully handled by the skilled midwives.

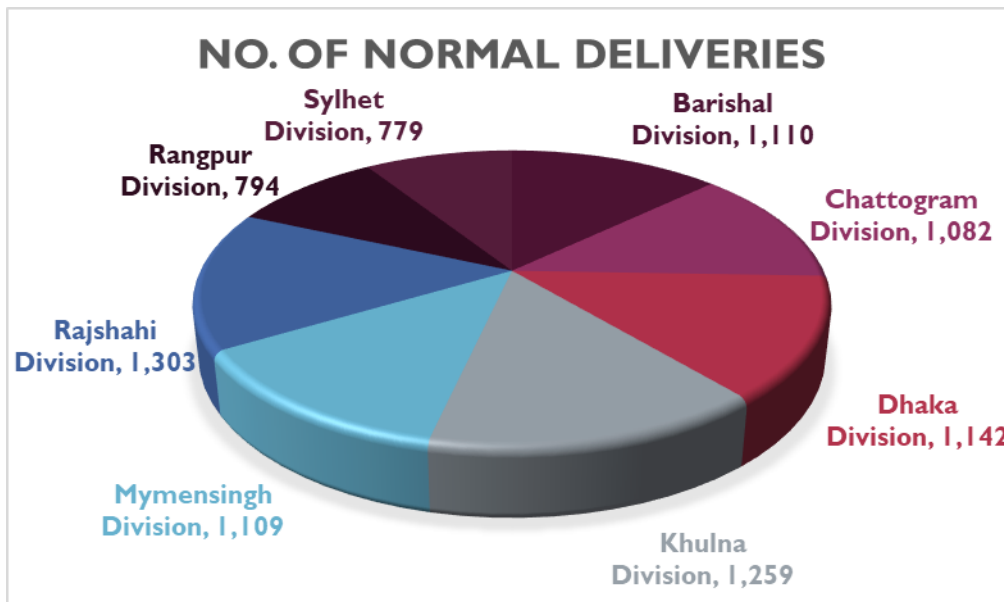


Figure 4.2: Comparative analysis based on division

Number of Antenatal Care

Prenatal care also known as antenatal care. It is kind of preventive health care focusing on the regular health check-up of the expecting woman with the supervision of skilled midwives. It ensures that the mother is healthy enough to give birth of a healthy baby. This antenatal care provides women with regular health check-up including medical information on maternal physiological changes, biological changes, information on food and nutrition mental support and provide her with vaccination facilities. Our midwives being graduated in a diploma course are skilled enough to provide this support. So the women and the other family members will be benefited while they come up to a Upazilla Health Complexes or Union Sub Centres The ANC will be widened up enough if the surrounding environment including mass people are conscious enough to get benefited by it. Because it is a must for a safe motherhood that is an asset of a society.

Here is data based on the number of services provided as ANC to women.

Table 4.5: Feature on ANC by Midwives

Division	Year	No. of ANC
Barishal Division	2018	12,919
	2019	34,850
Chattogram Division	2018	11,719
	2019	33,121
Dhaka Division	2018	10,987
	2019	35,123
Khulna Division	2018	11,201
	2019	35,234
Mymensingh Division	2018	11,978
	2019	29,108
Rajshahi Division	2018	11,980
	2019	36,121
Rangpur Division	2018	13,980
	2019	38,745
Sylhet Division	2018	9,786
	2019	36,500
Total		373,352

The table states that a large number of women are being provided with antenatal care by the skilled midwives. So it can be said that awareness among mass people have increased to somewhat extent. But the amount should be more and is hoped to be in near future with the betterment of the facilities of the midwives, the dedicated souls.

Similarly, this figure portrays the amount of women getting antenatal care in different divisions in Bangladesh. So Rangpur division is the highest position regarding the amount of women provided by the midwives, respectively Rajshahi, Barishal, Khulna divisions are proving care to a good quantity of women. Our midwives have dedicated their soul in service of nation through ensuring health protection to the women and children as it is a new phenomenon the number of people being served is not huge but it is potential in a sense comparing with the time limit of less than two years and also many other shortcomings are also paving the way of success of the midwives. But the hope is that our government has taken initiative including education in training facilities to spread out this novel profession all over the country.

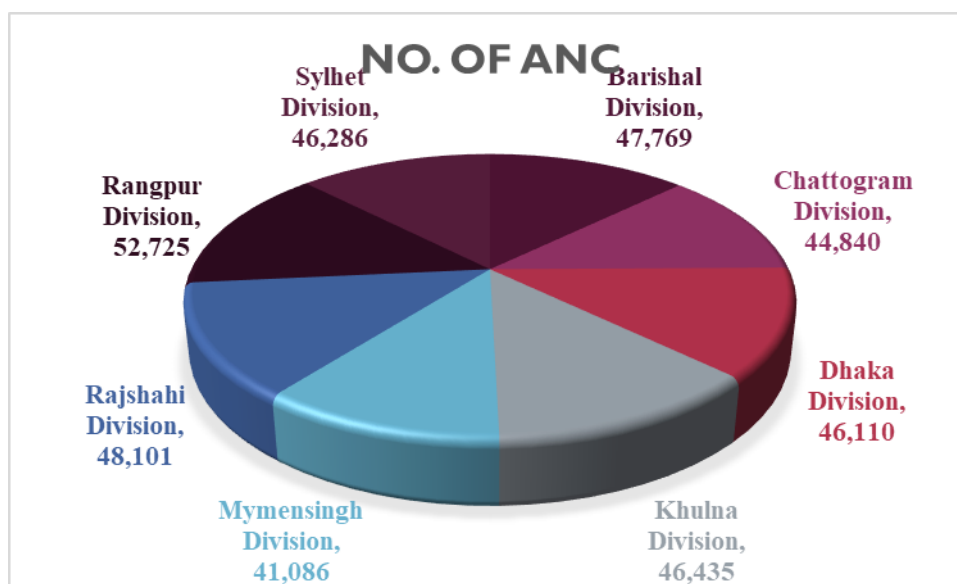


Figure 4.3: Division based ANC analysis

Support in Gender Based Violence cases

The midwives are not only providing health protection or treatment to women and children rather they are providing support in different cases of gender based violence. In a developing country like Bangladesh, where gender discrimination is rooted in the vein of the society, it is obvious that the woman who are the better half of the man or the light bearer for the betterment of the society are being victimized at a large portion of gender based violence. It is such a worst condition that the aggrieved women are being locked without providing her with proper care or legal steps to be taken. So handling the gender based violence cases is a not only a duty but a challenge to the midwives. The midwives themselves fight against various threat to provide help to the victims, women and children.

The midwives in every division are providing GBV support to the women from very root level because the situation is worst in rural areas.

Here is a table showing the amount of cases providing GBV support by the skilled midwives.

Table 4.6: Feature on GBV Support by Midwives

Division	Year	Number of Support provided to Gender Based Violence Case
Barishal Division	2018	105
	2019	109
Chattogram Division	2018	108
	2019	97
Dhaka Division	2018	110
	2019	120
Khulna Division	2018	123
	2019	108
Mymensingh Division	2018	98
	2019	125
Rajshahi Division	2018	101
	2019	110
Rangpur Division	2018	97
	2019	80
Sylhet Division	2018	104
	2019	119
Total		1,714

Every Upazila Health Complexes and Union Sub Centers having midwives provided speedy support to the victimized women through health checkup and mental support or even sometimes with legal support. Gender based violence is happening in a large quantity and the effect is very prominent that it hinders the social growth and development at a time. As Bangladesh is upgrading from LDC to Developing Country this type of offence if not being prevented earlier will lag behind our society and stop the development. Our midwives are authorized and trained up in the field of support towards the women in various cases regarding GBV. It is their partial duty and are providing side by side the health protection to the women and children. It is inter linked with the aim of safe motherhood and zero maternal death in a sense that the victim of gender based violence are mainly the ignorant women having a girl child in the rural area.

This pie chart is resembling the situation on GBV cases and successfully handled by the skilled midwives posted different Upazila Health Complexes and Union Sub Centers all the eight divisions in Bangladesh.

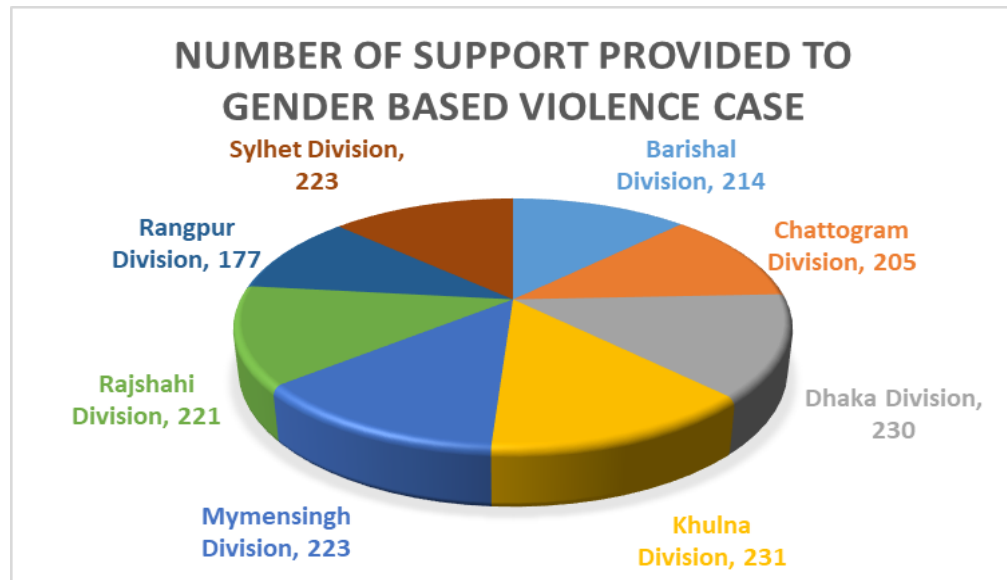


Figure 4.4: Comparative ratio among divisions on GBV support

4.2.2: Comparative scenario in child birth form 2017-2019:

The midwives started being deployed since 2018. Before that there was skilled nurse only in the field of health protection for women and children. In rural areas all Upazila Health Complexes and Union Sub Centres though had nurse was running out of man power so to provide service to the fullest extent. Deployed midwives in these sectors have opened a new dimension of service providing to the rural ignorant and helpless women. It is not always happening that the rural people are poor, sometimes they are having enough wealth are much ignorant or reluctant to bring the women for regular health check-up. Because it is not about money but about conscience that to be aware of the health of an expecting women because she is an asset to the society and a health new born is the key for the development of the society.

Before the deployment of the midwives the nurses were the only caregiver to the women and sometimes the quantity of caregiver has not enough to provide support to the larger portion of women from different strata of life. Being deployed midwives have increased the man power

in rural areas. With their advanced skill and educational technique, they are able to provide a large number of women at free of cost or at a nominal cost of treatment.

Here is a data on analytical study based on the amount of normal deliveries from 2017 to 2019. It is to clarify that midwives have been started practicing from June 2018. So the scenario is casting the feature that the midwives have taken the initiative to increase the rate of normal delivery. So it is hoped that the number will be drastically change in near future regarding the rate of normal delivery.

Table 4.7: Number of Normal Delivery by Midwives and Nurses

Year	Number	Caregiver
2017	142113	Nurse
2018	152476	Midwives & Nurses
June-2019	136416	Midwives

Though the number of deployed midwives are lesser than the nurse but the approach of the midwives in the health sector is to increase the normal delivery. It has been inferred that though the amount is nominal but the hope can be grown in a sense that the number of midwives will be increased according to the need of population and so the practice will result in a great success.

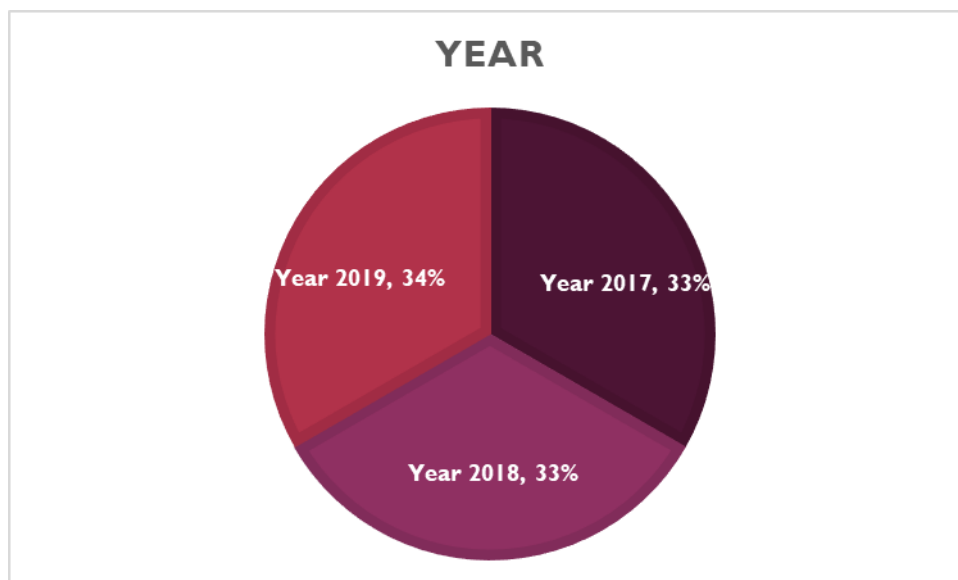


Figure 4.5: Percentage of Normal delivery 2017-2019.

While it is in the field of caesarean section the practice in our country is quite disappointing. Our doctors and nurse are quite interested in doing unnecessary caesarean section. Sometimes it is the objection of the patient party is that they have been threatened regarding the life risk of the patient or the child going to be born. Force or pressure is given to insist the party to undergo the caesarean section. And it is also true that sometimes people are so ignorant that they find caesarean section beneficial for health not even caring about cost they are consenting to it.

The midwives are trying to bring a revolution in the field of health sector by decreasing the rate of unnecessary caesarean section and ensuring maternal death to be zero by 2030.

Table 4.8: Number of Caesarean Section by Midwives and Nurses

Year	Number	Caregiver
2017	14795	Nurse
2018	14674	Midwives & Nurse
Jun-19	11259	Midwives

Though the chart is under the influence of many hidden dangers but overall comparison with normal delivery and caesarean section data can be studied in a positive way that if midwives are being facilitated properly with proper education and training, it will surely bring revolution in the health sector.

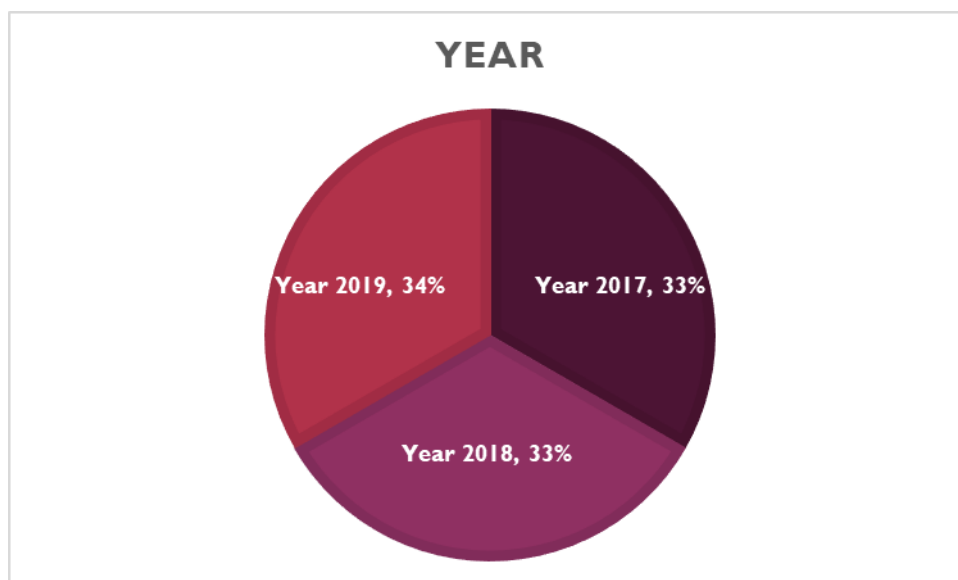


Figure 4.6: Percentage of Caesarean Section 2017-2019.

4.3 Descriptive Analysis

Midwives are bound with duties to serve for the nation. The creation of this post aimed with decreasing the maternal death into zero by 2030. So the very first deployed midwives are working hard to result in a success to reach the goal. The practical scenario shows something different.

Table 4.9: Ratio of maternal death in divisions

Division	No. of Maternal Deaths		
	2017	2018	2019
Barishal	140	94	47
Chattogram	183	158	118
Dhaka	289	242	158
Khulna	101	101	73
Mymensingh	167	167	218
Rajshahi	142	176	163
Rangpur	153	125	80
Sylhet	82	97	74
Total	1,257	1,160	931

It seems from the table that the number of maternal death is decreasing but not at a very drastically rate but it is enough to keep the hope living for better future. It cannot be expected that deploying such a nominal amount of midwives will bring huge variation in the health sector. Providing a greater number of midwives with properly trained up modern knowledge and skill they can achieve success.

Analysing the data collected it is observed that the rate of unnecessary C-section is decreasing and the rate of normal delivery is increasing and the midwives have play a vital role in this field, because they are well skill in this manner. Though there is no prominent success in the services provided by the midwives it is enough to show the positive impact of services rendered by them in the field of health protection in rural areas. Where the circumstances were quite different from now in the recent past. Women in rural areas are so ignorant that they do not even aware of their right to get assurance of their health protection. Midwives practicing here are providing mental and sometimes legal support in case of GBV.

Analysis through questionnaire

As per first question was that if the number of practicing midwives sufficient according to the need of the society. The result come out almost a unanimous decision being negatively answered by 26 people that the number of midwife serving for the nation is not full filling the need properly.

The next question was that if there was any need of midwives in district level that answered by 67% people positively. So deploying midwives in Upazlia and Union level is not sufficient to full fil the aim of creating this profession.

The third question was statement that the midwives are successful in their performance answered positively by most of the people counting 80% so it is understood clearly that midwives are dedicatedly performing their duties and gaining faith of general people in this short lapse of time.

The another question was regarding the skill and training of the midwives but the fact is that though 19 people answered positively rest are totally ignorant about it. So from this perspective can be said that for not having transparency in information system people are not getting acquainted with the performance, education, training and skills of the midwives. It would not be exaggeration to say that most of the general people are ignorant about the creation of post midwives till now.

The consensus for the next question regarding their awareness on the success rate of midwives in their profession is very much disappointing that only 12 people replied affirmatively. This shows the reality not having a proper and organized data collection procedure and general people not having access to information relating to this.

But the general people from different strata of life are in the same putting regarding this question of the usefulness of midwifery profession in our society that answered positively by 27 people. So the vital role of midwives in the sector of health protection is cannot be denied. The people from the very root level are also having positive aspect towards the creation and performance of midwives for the betterment of health sector.

Having interviewed some concerned authorities, it is elicited that the promising profession midwifery will achieve the goal of success if such environment can be created for smooth performance of duties by them. Respective authorities also brought an indication of bringing an organized big data server to collect and produce data at a very easy and systematic format.

So that no question can be arose regarding the accuracy of the data. This data server should be providing free access of general public so to gain faith through ensuring transparency in the information displayed.

4.4 Summary

Being a new concept midwife a lot of emphasis should be given to empower it with due responsibilities and with infrastructural strong base which can be provided through a proper monitoring and stablishing a well-equipped data server for collecting service data, educational facilities and proper training facilities. There is no doubt that midwives are working hard to serve the nation through ensuring safe motherhood and new-born care. Though a systematic analysis cannot show the drastically change but it holds the notion of change. A bit change has been occurred in the field of normal delivery that it decreasing the rate of unnecessary C-section. Again the rate of maternal death is also getting lower. So it is wellbeing hoped that if the continuous development is ensured towards the expansion of the midwifery profession it will surely reach in its paramount goal. It is prominent from the experimental analysis on data and through the evaluation of the questionnaire that every people from different respect of society are in a unanimous decision that midwifery is a novel profession and is much needed in developing society like us. Recommended changes should be brought a to be utilized to the fullest extent and become the highly beneficiaries.

Chapter 5

Summary, Conclusion, Recommendation and Implication for future research

5.1 Summary of the study

This is an analytical study about the role of the midwives who are bringing a new phenomenon and a new concept of which the general public are not acquainted enough. The aim of creating this post was to ensure the health protection of women and ensuring a safe motherhood resulting a health new born being an asset to the society and decreasing the maternal mortality to zero by 2030 as per the government mandate. The midwives are posted being first time deployed in different UHC and USC. So the responsibility they are practicing basically in the rural area. They are not only providing health protection but also providing mental, nutrition knowledge, family planning and sometimes with legal help in the GBV cases. Safe and healthy mother is the key for betterment of the future. And our dedicated midwives are working hard to ensure different sort of protection to the ignorant rural women who are victimized with such cruelty not even are permitting for a regular health check-up.

Government has taken measures to produce qualified midwives with proper training and education. Total 55 number of government and non-government institutions are offering a three-diploma in midwifery degree to graduate and the PSC examination is the way for getting deployed in different hospitals. Being a government job, they are having a secured life different training facilities are provided to them and they are duty bound to decrease the rate of unnecessary C-section and the normal delivery should be spread out and raise consciousness among people regarding the misconception of C-section.

Every year 1564 student are getting graduated after passing PSC examination they started their practices in different health sectors. But the practical scenario is stating something different. The number of the midwife is very nominal in comparison with the ratio of women to be served. So the large amount of people is being deprived of their right of health protection.

Again, midwives are only deployed in the upazila level. The district levels are also facing the scarcity of skilled caregivers So, the ratio of midwives being so nominal is not able to

achieve the goal they are focused upon. They are working hard but if the number is not increased then the goal will be unreached.

Again, the service data of the midwives are collected in a very wrong and hazardous way. So it losses it's accuracy and at the same time the general people are remain ignorant regarding the service of this noble profession.

5.2 Conclusion

The midwifery is undoubtedly a noble profession. Though to spread out this new conception to every people the government has taken various initiatives, if this can reach in every corner of the country then the motto of this midwifery post will be achieved. In our country most of the people living below the poverty line are deprived of their right to health protection. Being ignorant they do not even go for a regular health check-up which is in reality free of cost or with a nominal cost. But not getting proper treatment or supervision of a skilled caregiver every year thousands of maternal death and child death occurred. The worst sufferer in this happenings is the society. Because a health mother and the child is an asset. So, proper measures should be taken to expand the concept of midwives to every door steps of our country. To achieve the benefit, the number of the midwives being educated, skilled and properly trained up should be increased. The organized way for service data collection, training facilities, reading materials, necessary equipment should be furnished to them. So that the midwives can be more efficient to service for the nation. A systematic operation of a big data server is a must for the expansion and the fulfilment of expectation from the midwives for the betterment of the society. The government, semi-government and the non-government organization should come forward to properly facilitate our midwives with sufficient education, training and job facility so to serve for the nation.

5.3 Recommendations

Midwives can be the pioneer of a health society, because they are dedicatedly serving for the nation, for the betterment of the women and children. They are no doubt being a newly emergent are making themselves successful in the duty they are bound. The midwifery post has been created, deployed and they are serving by working hard but they are lagging behind. Because of not having a proper monitoring system. There should be a uniform big data server

which would be operated in a systematic, easy and proper way to maintain the whole midwifery section including their education, training, deployment, posting, service data etc. The procedure of collecting this data should be followed and received in a very easy way so to avoid unnecessary hazard to it. Because it may result inaccuracy of the data collected.

Again, the big data server should have the option for public access. So all the midwives can provide their service data here easily and the general public can view the service data, so they can get a transparent and clear knowledge about the role and performance of the midwives. So that they can get faith and bring their women counterparts under the health care protection. Moreover, observing the novel profession and the brighter future many girls will find themselves interested in the field of midwifery.

The further problem arises with the number of the midwives. Only 1149 midwives are serving now. So to achieve its fullest extent benefit they education and training facilities should be expended out. More government and non-government organizations should provide a-three-year diploma course to the midwives, so that there creates a scope of getting a larger number of midwives at a time. Because the health protection is to be ensured to a larger number of people, where the amount of care givers should be increase as well.

The training facilities should be widened enough. Different organizations being government, non-government, semi-government, national or international organizations should come forward with motive to provide financial or infrastructural support to the midwives so to trained them up to the extent of need of the society.

The educational institutions should be well equipped with proper computer lab, midwifery lab and library with relevant books and equipment so the midwives are educated in a modern methodology and that will help them in their professional career.

So it is undoubtedly going to have a better future by providing the midwives with proper facilities and increase the number as will and so the nation can hope for a healthier and better future.

5.4 Implication for Further Study

It is clearly observed form the research monograph that a big data server is the need for achieving the success of this midwifery profession as per the need of the society. So, it can be

a greater way to find out the formulation of a big data server for proper implementation and operation of it. Because it is obvious that without a uniform and properly operated data server, the services of the midwives cannot be enlisted in an organized way. A data server is not only holds all sorts of information regarding the midwives rather it portrays in the minds of general people raising faith upon the work of the skilled midwives and so they permit the women to enter into her right of a protected health care and the most beneficiary would be the society in this respect.

References

- [1] UNFPA, "Midwifery Newsletter," *UNFPA*, vol. 1, no. 1, pp. 2-8, 2018.
- [2] DGNM, *Newsletter for Professional Midwives in Bangladesh*, vol. 1, no. 2, pp. 15-18, 2018.
- [3] UNFPA, *Newsletter*, vol. 1, no. 3, pp. 2-4, 2018.
- [4] DGNM, *Standard Operating Procedure for Professional Midwives*, vol. 1, no. 1, pp. 27-35, 2018.
- [5] DGNM, "Register Book for Nursing & Midwifery," 2018, Dhaka, 2018.
- [6] DGHS, "Register Book for Gynae Ward," Dhaka Medical College, Dhaka, 2018.
- [7] Dhaka Nursing College, "Register Book for Student Midwives," DNC, Dhaka, 2017.
- [8] B. N. Council, "Midwifery Student Curriculum," BNMC, Dhaka, 2017.
- [9] BNMC, "Bangladesh Nursing & Midwifery Council," [Online]. Available: www.bnmc.gov.bd.
- [10] D. G. N. M., "Directorate General of Nursing & Midwifery," [Online]. Available: www.dgnm.gov.bd.
- [11] DGHS, "Directorate General of Health Services," [Online]. Available: www.dghs.gov.bd.
- [12] SNMP, "Strengthening National Midwifery Programme," [Online]. Available: www.mis.snmp-dgnm.org.
- [13] UNFPA, "UNPFA Bangladesh," [Online]. Available: www.bangladesh.unfpa.org.
- [14] BRAC, "BRAC Education Programme," [Online]. Available: <http://sph.bracu.ac.bd/index.php/midwifery2>.
- [15] D. Tribune, "Dhaka Tribune," [Online]. Available: <https://www.dhakatribune.com/opinion/special/2018/05/14/midwifery-transforms-childbirth-risks-in-bangladesh>.
- [16] T. D. Star, "The Daily Star," [Online]. Available: <https://www.thedailystar.net/supplements/unfpa-supplement/professional-midwife-led-maternal-and-newborn-health-care-bangladesh>.

APPENDICES

Appendix A: Research Reflection (Questionnaire)

I am A.B.M. Golam Morshed Khan obtaining degree in M.Sc in CSE from Daffodil International University. As per of being a partial requirement for completing M.Sc. in CSE I am doing a research on ‘An analytical study on the role of the promising midwives for the development in the health sector of Bangladesh’. And for this purpose I would like to have your valuable opinion regarding the questions below.

Please tick mark as your desired answer. Furnish your comments or recommendation if any.

1. Is the number of practising midwives sufficient?
 - Yes
 - No
2. Do you think that practicing midwives post is necessary for general hospitals?
 - Yes
 - No
3. Midwives are successfully performing their duties. Do you support this statement?
 - Yes
 - No
4. Are our midwives well skilled and trained?
 - Yes
 - No
5. Are you aware of the success rate of midwives regarding their profession?
 - Yes
 - No
6. Is the new profession midwifery useful for us?
 - Yes
 - No
7. Do you have any further recommendation?

.....
.....

Appendix B: Results from survey

The questioner interview was being circulated among 30 people 10 of these are concerned authority working in different government offices, 10 of these are students of Dhaka Nursing College, 10 of these are general people.

The study reveals as understated.

Question No	Yes		No	
	Number	Percent	Number	Percent
1	4	13%	26	87%
2	20	67%	10	33%
3	24	80%	6	20%
4	19	63%	11	37%
5	12	40%	18	60%
6	27	90%	3	10%

Test-1

by Abm Morshed

Submission date: 30-Nov-2019 12:15AM (UTC+0600)

Submission ID: 1223665011

File name: Thesis_Final.pdf (756.23K)

Word count: 10072

Character count: 51087

Test-1

ORIGINALITY REPORT

6%

SIMILARITY INDEX

4%

INTERNET SOURCES

0%

PUBLICATIONS

5%

STUDENT PAPERS

PRIMARY SOURCES

1

Submitted to Daffodil International University

Student Paper

3%

2

Submitted to Brigham Young University

Student Paper

<1%

3

Submitted to University of Northumbria at
Newcastle

Student Paper

<1%

4

Submitted to Florida International University

Student Paper

<1%

5

www.bd-eduinfo.com

Internet Source

<1%

6

Submitted to University of Strathclyde

Student Paper

<1%

7

quickenfobd.com

Internet Source

<1%

8

www.statistics.gov.hk

Internet Source

<1%

9

Submitted to Strathmore University

<1%

10

[documents.mx](#)

Internet Source

<1%

11

[fob123.com](#)

Internet Source

<1%

12

[Submitted to Universiti Sains Islam Malaysia](#)

Student Paper

<1%

13

[www.newagebd.com](#)

Internet Source

<1%

14

[Submitted to Ghana Technology University College](#)

Student Paper

<1%

15

[www.thedailystar.net](#)

Internet Source

<1%

16

[eprints.utm.my](#)

Internet Source

<1%

17

[www.mdpi.com](#)

Internet Source

<1%

18

[www.scribd.com](#)

Internet Source

<1%

19

[Submitted to Loughborough University](#)

Student Paper

<1%

[Submitted to University of Melbourne](#)

Exclude quotes Off

Exclude matches Off

Exclude bibliography On