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Community Medicine

FACILITY BASED NEWBORN CARE & HOMOEOPATHY

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ABSTRACT A newborn struggle in the first month of his or her life as is evident from mythology that Lord Krishna too had a turbulent neonatal stage. The struggle of newborns continues in India even today and that too in the state of UP even today. The current Neonatal Mortality Rate in India is 22 per 1000 live births (UNIGME, 2019), 24.9 as per NFHS 5 (2019-2021) & for the state of UP, it is 35.7 (NFHS 5, 2019-2021). The high neonatal mortality both in India and UP stand as a testimony to this fact as reducing this indicator is a priority. The current article focuses on the initiatives of the role of homoeopathy in public health system to address neonatal mortality. Basically, there are two approaches to reduce neonatal mortality. These are Home Based Neonatal Care (HBNC) practices and the Facility Based Neonatal Care (FBNC) practices. The article focuses exclusively on the second approach which is FBNC .There are three objectives of the article. The first is to find out the current status of Homoeopathy in the FBNC practices, the second is to find out the details of the current & past implementation strategies and the third is to find out the link between Homoeopathy & HBNC/FBNC practices. The study uses secondary data. The gap that the article worked on is to explore a link between Homoeopathy & HBNC/FBNC & its modalities. It deciphers whether there is a functional link or not & suggests future strategies based on the functionality of the link.The article also proposes a 2 year plan to introduce homoeopathy in the field of newborn care where all the related stake holders of the state & national level will be involved. It will be a step in the right direction to fulfill the plans to achieve the SDG by 2030 especially for neonatal & infant mortality related goals. For the benefit of the readers, the article includes its expected outcome, relevance to society & policy making through the context of the identified issues & the research gap. Through all these sections, the current article puts an effort to fulfill the three cited objectives of the current study related to incorporation of homoeopathy in newborn care.

KEYWORDS :

Introduction

In this section, the historical perspective of FBNC programs is discussed in the beginning thereby progressing to the current status in India and in UP. Box number 1 shows the time line of Newborn care including FBNC in India at a glance.

Box number 1

- 1980- National Neonatology Forum (NNF) launched
- 1992- Essential Newborn Care (ENC) launched through Child Survival & Safe Motherhood (CSSM) program.
- 1994- In 26 districts of India, Newborn Care Program (NCP) launched through CSSM
- 1994- National program on Facility Based Newborn Care (FBNC) launched
- 2000- National Newborn Week (NNW) initiated & to be celebrated from 15th to 21st November each year.
- 2003- District level Newborn Care Unit (NBU) set up in Purulia district, West Bengal.
- 2011- Home Based Newborn Care (HBNC) guidelines launched.
- 2013- Integrated Action Plan for Prevention & control of Pneumonia & Diarrhoea (IAPPD) launched.
- 2013- RMNCH+A launched in the month of February.
- 2014- India Newborn Action Plan launched.
- 2015- Focus on Neonatal Mortality Rate as the first step to reduce Infant Mortality Rate through the launch of goal #3 of Sustainable Development Goals (SDG).

The current article is in the area of FBNC and FBNC is a part of Child Health. Hence, imperatively tracing the history of the child survival programs in India was essential. Needless to say, initially the entire child survival intervention was based on the roll out of immunization programs in the country. Almost after a decade of introducing the immunization program at the national level, the child survival interventions became more focused. The following paragraph elucidates the details.

In 1994, a district newborn care program was introduced as part of CSSM in 26 districts. The national program on FBNC was launched in 1994. Thus nation wide creations of Newborn care Corners (NBCC) at every point of child birth, Newborn Stabilization Units (NBSU) at First Referral Units (FRU) and Special Newborn Care Units (SNCU) at district hospitals (Neogi S et.al, 2016).

The feasibility of establishing and operating a district level unit for the care of small and sick newborns was first demonstrated in 2003 in Purulia district of West Bengal (Sen A et.al, 2009). There are three levels of care in the FBNC guidelines of GOI. These are care at birth, care of normal newborn and care of sick newborn (GOI, 2011). In 2014, the India Newborn Action Plan was launched by GOI that included both HBNC & FBNC components (GOI, 2014).

Literature review

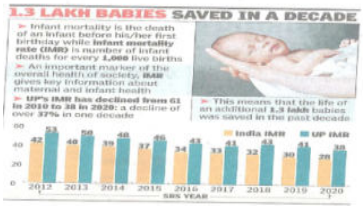
This section includes the background of newborn care at global, national and the state level. The state level efforts regarding newborn care picked up from the inception of NRHM in 2005. That means

almost after 45 years of sustained efforts at country level, the state level picked up. The National Neonatology Forum was formed in 1980 and formulated the first set of recommendations on neonatal care in 1980 (NNFI, 2015). Therefore, in 1992 the program launched was Child Survival and Safe Motherhood program and this had the Essential Newborn Care component included as an integral part (NNF, 2005). This was followed by Reproductive and Child Health program in two phases from 1997 to 2005 (GOI, 2005). Since 2000, with the advocacy of the National Neonatology Forum the national newborn week was celebrated from 15th to 21st November each year (NNF, GOI, 2000). The NRHM was launched in 2005 and the HBNC strategy was launched in 2011(GOI, 2014). The RMNCH+A strategy were in place in 2013 (GOI, 2013) and currently we have the India Newborn Action Plan since 2014. (INAP, GOI, 2014). The INAP details the FBNC approach and the IAPPD launched in 2013 on the lines of GAPPD helped develop the treatment guideline SOPs of neonatal killers like pneumonia, diarrhoea, infections etc.

A meta-analysis of studies across 44 countries showed that strengthening of lower- level health units with high case loads can yield optimal reduction in NMR (Neogi SB et.al, 2012). Facility based newborn care refers to round the clock clinical services provided by skilled personnel at health facilities (Darmstadt GL et.al, 2006; Neogi et.al, 2012). In India, FBNC started in 1960s in few teaching hospitals. During 1990-2000, Essential Newborn Care (breastfeeding, warmth, hygiene) was conceptualized. As a result of this, radiant warmers, resuscitation equipment, weighing scale, phototherapy units, training became activities of FBNC (Neogi SB et.al, 2016). Further, in a study in Karnataka, it was shown that supervisory and monitoring checklists improve HBNC services (Spector JM et.al, 2012). This is an area that the current study will explore. A study mentions that FBNC has two components which are essential NBC and care of sick newborns (Gould JB et.al, 2002). The GOI in its FBNC guidelines mentions that there are three levels of care. These are care at birth, care of normal newborns and care of sick newborns (GOI, 2011).The three levels were to be dealt at the district level facilities. One of the significant difference between the FBNC & HBNC was cited by a study in rural Uttar Pradesh where the study found that use of Antenatal care & skilled attendance at delivery were significantly associated with clean cord care & early breast feeding but not with thermal care (Baqui A H et.al, 2007). Hence, to maintain thermal care, there has to be symbiotic relationship between HBNC & FBNC.

Neonatal Mortality Rate reduction reflects on the reduction of Infant Mortality Rate. In this way, the efforts of government of Uttar Pradesh are significant when we track the reduction of IMR through SRS data. The following figure shows the reduction of IMR in UP & the portion was published in the Times of India newspaper of Lucknow edition dated June 2nd 2022. The figure shows reduction of IMR in India & UP during the period 2012-2020. UP saved 1.3 lakh babies in a decade from 2012-2020 (SRS, 2012-2020).

Figure 1- TOI piece on IMR in India & UP in Lucknow edition dated 2nd June 2022(Source of data, SRS, 2012-2020).



Objectives of the study

There are three objectives of the article. The first is to find out the current status of Homoeopathy in the FBNC practices, The second is to find out the details of the current & past implementation strategies and the third is to find out the link between Homoeopathy & HBNC/FBNC practices.

Identification of research gap

After the literature review, the identification of the research gap is done. Here, the identified gap is that AYUSH systems like Homoeopathy has not been integrated in the newborn care frame work in India. The dispensaries of the homoeopathic systems work vertically & there is no integration in the newborn care component of the public health system. Although homoeopathy has proved its credentials in the field of child health & especially neonatal health, its potential has not been streamlined in to the current programmatic interventions both at state & national level (GOI, 2011; Ministry of AYUSH, 2015).

Outcome

The significant outcome of any project is its contribution to the body of knowledge, influence policy making and bring positive impact in the lives of the people. After the completion of the current article, to contribute to the growth of literature in the field of newborns, more academic articles like the current one will be written. The lead author did his doctorate in Home Based Newborn Care practices and through this study, the lead author deals with Facility Based Newborn Care practices. As both FBNC & HBNC complete the entire package of newborn care, published articles like the current one where the link between HBNC and FBNC approaches is brought out for the benefit of the state of UP and the country. The issues are also to be discussed with the students as the lead author teaches students of Masters of Public Health (Community Medicine) course of Lucknow university (Website of Lucknow university). The lead author has worked with Maternal & health projects of international level NGOs and the public health system in the state of UP & hence through symposiums and seminars, the lead author will disseminate the learning of the current article. All these approaches will lead to interactions with the policy makers at the administrative level and at the community level, interactions are to be done through the stakeholders of NGO network.

Basically, outcomes are those that the entire community sees through. Emphasis on HBNC and FBNC approaches is expected to lead to reduction in cases of pneumonia, diarrhoea, infections, hypothermia thereby leading to less number of neonatal mortalities. Less number of neonatal mortalities helps to lead to increased adherence in community-based platforms like Village Health Nutrition and Sanitation days where the quality of services rendered is expected to improve (UNFPA, 2005). Improved quality of services may lead to inter-sectoral collaboration among health, education, PRI and sanitation departments. Case studies are to be written and published for such improved collaboration and enhancement of quality of services at a later stage. Basically, the above two paragraphs sum up the outcome.

Any new data in future (effects of the current article)

Currently, in the Health Management Information System of the state of UP, it only mentions the number of newborns weighing less than 2.5 Kilograms. The threshold weight of newborn at community level is 1.8 kilograms (MCH guidelines, NHM, GOI, 2007). The study in later stages will find out how many cases having birth weight less than 1.8 kilograms were referred to FBNC facilities. Future studies will also decipher of any link between HBNC and FBNC both qualitatively and quantitatively. Currently in UP, the HBNC checklist of ASHAs are analyzed only in numbers and feedback is not given as per the content of the checklist (GOI, 2011). Similarly, the forth coming study will see whether the changes in HBNC approaches are tuned with the feedback from staff and community members. Later the studies will also see if there is any checklist maintained at the facility level regarding FBNC and whether the analysis of the checklists are done or not effectively and periodically.

The current paragraph is not related directly to homoeopathy but focuses on the programs currently operational & related to newborns.

Relevance for policy making

Policy makers will look into this aspect as long as Infant Mortality Rate is not reduced to single digit. Among the deaths, it is the neonatal deaths that have not reduced at the pace at which it should have reduced (Shankar MJ et.al, 2016). Hence, if reduction of IMR is a priority, among them the factor of reduction of NMR is the first priority. The country and the states are supposed to improve upon the SDG targets and among the subgoals of the goal number 3 of the SDG, 3.2 mentions reduction of neonatal mortality to less than 12 per 1000 live births and U5 mortality to less than 25 per 1000 live births (UN, SDG, 2015). Reduction in IMR and U5 MR will only happen if NMR reduces. In order to achieve the reduction, focus on the facility and community levels approaches needs to be prioritized. The current study focuses on health Facility Based Newborn Care approaches. If the FBNC addresses the referred cases effectively, then only the community based HBNC approach will be effective. Here, it is a top-down approach as newborns having birth weight less than 1.8 kilograms have to be catered by FBNC. Policy makers will benefit as it explores the link between two components of newborn care.

Relevance to society

Saving newborns will eventually reduce IMR and U5 MR. Hence, child survival becomes the plank of the article. Immunization programs have already demonstrated that they are effective child survival approaches that lead to population stabilization in the long run. Currently, the government of U.P. has announced the new population policy where couples are encouraged to have two children in order to get benefits from the public health system. Strengthening the FBNC approach will address reduction of neonatal mortality in the first month of life. A strengthened health facility will handle referred cases effectively there by improving the community-based referral system timely and effectively. Such approaches will build confidence and trust among the community towards the public health system. Effective referrals will render respect and dignity among the triad of Front-Line Workers, community and the health system. Timely referrals of newborns will also lead to effective tracking of both the mother and child there by improving timely registration of birth events in the community. Timely tracking will lead to early diagnosis, treatment and referral at the community level. This eventually leads to better management of verbal autopsies of Infant Death Review and Maternal Death Review to know the cause of death.

Milestones for each quarter- A two year plan to integrate Homoeopathy in Newborn care especially FBNC

The first quarter will focus on finalizing the outline of the proposal, material collection for literature review, expand the proposal on the lines of what has been detailed in the article. Material tracing from past, present will be done for global, national, state and district level. Along with material collection, secondary data on newborn care will be collected from these three levels. The contents will be finalized with discussion and feedback from the experts while incorporating their inputs. Various academic websites, journals, articles and other program reports of all these three levels will be the input to finalize these activities related to the upcoming proposal.

The second quarter will involve finalization of the research methodology section and development of the project framework. Collection of information about the districts, health facilities, staff involved in roll out of FBNC, names of villages and their ASHAs living close to the health facilities will be finalized. This quarter will also finalize the objectives and the related research questions. The problem statement and the research gap will be strengthened and finalized to augment the homoeopathic study further. Sampling method, sampling technique, inclusion/exclusion criteria etc. will be finalized. The plan for the next quarter will also be finalized in discussions with the stakeholders.

The third quarter will focus on finalization of the outline and contents of the chapters of the proposal. There will be five chapters in all. The chapters and the contents will be

- Chapter One: Introduction chapter – FBNC globally, FBNC in India, FBNC in UP
- Chapter Two: Literature review- FBNC role, performances and experiences related to FBNC
- Chapter Three: Methodology - sampling stages project area and tools and procedures of data collection in detail
- Chapter Four: Results and discussions- presentation of tables of results and presentation of statistical analysis and discussion
- Chapter Five: Conclusions and Recommendations
- Appendix: References, Research Instruments etc.

Fourth quarter will have research tool development. There will be survey questionnaire, interview schedule and preparation of the sampling universe at each level. The contents and flow of the questionnaire and the interview schedule will be finalized in discussion with the stakeholders. The developed tools will be pilot tested as per discussion with the supervisor. After pilot testing, the inputs will be shared with the stakeholders and the tools will be finalized. The pilot testing will involve the feedback from all the stakeholders like the skilled manpower of FBNC, mothers and the ASHAs. Plans for next quarter will be done.

The fifth quarter will be for data collection and field visits. Plan for travel to the health facilities, homoeopathic dispensaries, homoeopathic institutions, villages to meet the stake holders will also be done. Depending upon the learning from the pilot testing, adequate time will be given to each of the research tool to collect data and verbatims as from the horse's mouth. The data will be collected in hard copies while the tool would have been developed to make data entries easy. The entire quarter will be for upkeeping of the hard copies so that the entries are done correctly and without any over writing.

Sixth quarter will be for data analysis and data entries. The data entry is to be done in excel sheet analysis is to be done using SPSS for quantitative data and qualitative data is to be analyzed using grouping and collating method. Descriptive and analytical statistics will be used to analyze data. Mean, median, mode, standard deviation, mean deviation will cover descriptive statistics while chi square, t test and ANOVA will cover analytical or inferential statistics. The analysis will be done for each of the questions in the research tool and thereafter tables will be developed for each question of research tool.

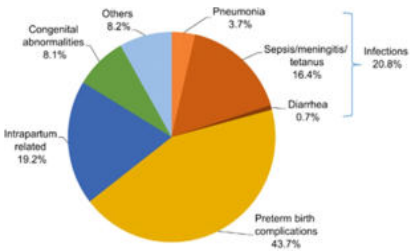
Seventh quarter is for writing the results and discussion section of the proposal. Each of the questions in the tool will be used to develop a table followed by writing the results and discussions depending upon the data in the table. Discussions will be written depending upon the interpretation of the results. Besides mentioning the percentage depending upon the elicited data, mean, median, mode, standard deviation and mean deviation will also be mentioned in the discussion section. These results and discussions will lead to the development and plan of summary, conclusion and recommendation sections of the chapter that are next.

The last quarter will be to finalize the entire proposal along with the appendix that includes inclusion of research tools and references. Based upon the need, figures in the form of graphs is to be included in the proposal. The graphs can represent multiple questions in the tool while tables represent a single question in the tool. The reference will be written alphabetically and following that the research tool will be attached. The proposal will then be presented physically in the homoeopathic institutes at the national level, state level homoeopathic health facilities, National Commission on Homoeopathy and having incorporated the feedback from the presentation, the proposal will be submitted to Central Council for Research in Homoeopathy (CCRH) & the ministry of AYUSH at the state & national level.

FBNC modalities & Homoeopathy

The figure mentioned below shows the causes of neonatal deaths in India (Shankar MJ et.al,2016).

Figure 2- Causes of Neonatal Deaths in India



Let us analyze the three major causes of neonatal deaths in India. The major cause of deaths among neonants is preterm birth complications followed by infections. The next major cause is intrapartum related. Among other causes, there is equal weight given to congenital anomalies & the others category.

Regarding the timing of deaths, it is inferred that three-fourths of total neonatal deaths occur in the first week of life. The first 24 hour account for more than one third or 36.9% of the deaths that occur during the entire neonatal period (Shankar MJ et.al, 2016).

When we address the cause of death & apply homoeopathy to deal with the causes both at facility & community level, following protocol can be adhered to at both the levels. All the medicines are to be given in 20 size globules & having dissolved these globules in breast milk as the exclusive breast feeding modalities are to be adhered to as prescribed by WHO (Breast feeding guidelines, WHO)

Preterm birth complications- In case of Asphyxia- Antim Tart in potencies, Physiological Jaundice- Lupulus in potencies, Pathological jaundice- TNT in potencies, Weak lungs & heart- Aspidosperma in

potencies, Blue baby- Coca in potencies, Eye infections- Argentum Nitricum in potencies, Umphalitis- Calcarea Phos in potencies, Discharge of urine through umbilicus- Hyoscyamus in potencies, Open frontanelles & brain affections- Silicea in potencies, Weak kideneys- Solidago & Merc Cor in potencies.

- Infections- Pneumonia- Pneumococcin & Lecithin in potencies, Sepsis- Pyrogen in potencies, Meningitis- Helleborus & Veratrum Viride in potencies, Tetanus- Hypericum & Tetanotoxinum in potencies, Diarrhoea- Colostrum, Dysentery Compound & Zinc Met in potencies along with ORS as ORS is allowed in Exclusive Breast Feeding phase.

- Congenital Anomalies- Anti Syphilitic medicines are to be prescribed to check further tissue destruction till the surgery & the cases are to be dealt surgically.

- Intra Partum related- Still births can be checked with application of Cimicifuga in low potencies during pregnancy, Injuries during delivery to be dealt with Arnica, Hypericum & Calendula so that tissue, nerve & muscles are taken care of. In case of non crying babies, Coca & Oxygenium in potencies to be given to increase supply of oxygen to the brain & lungs.

- Others- To be dealt miasmatically where Sulphur in potencies to be given in Psoric cases, Thuja in potencies to be given in Sycotic cases & Merc Sol in potencies to be given in Syphilitic cases.

- Intervention in first 24 hours of birth- Give Colostrum, Lac Materna Humana & Mel in potencies as these medicines are related to breast milk & will enhance immunity. For maintaining warmth of the child, Calcarea Phos in potencies & Aconite in potencies to ward off fright. Incorporating these medicines on the '0' day of life of the newborn will prevent 37% of all neonatal deaths.

- Foods, Warmth & Security are the need triad of newborns. Colostrum feeding is food, Wrapping, Drying, not removing Vernix Caseosa for 7 days, bathing the newborn after 7 days, Skin to Skin Touch to be given for at least one hour in one setting where the child is kept in frog position on the chest of the mother or care giver. This is technically known as Kangaroo Mother Care. Human beings learnt the technique from Kangaroo where the baby Kangaroo remains in the mother's pouch and also breast feeds there. These help the baby Kangaroo to survive the odds in the first month of life (GOI, MCH guidelines,2007).

Newborn care & homoeopathy in public domain

Currently, the Essential Drug List of Homoeopathy, Department of AYUSH shows one category that includes newborn care. The category is childhood illnesses. Under various color categories, the potencies of each medicine are coded. The color seven highlighters only suggests to use the medicine in these potencies from a list of 233 medicines besides the biochemic medicines, ointments & drops to be used locally (GOI, AYUSH, EDL-H,2013).

Another document in the public domain is the 8th training module of ASHA developed by NHSRC in 2005 for NRHM. The module has a list of common medicines that describes their use in different conditions (GOI, NHSRC, 2005).

These two documents are vague & hence the need of the hour is to develop a treatment protocol for newborn care in homoeopathy. It should be developed on the lines of the HBNC & FBNC components. The causes of deaths should also be taken into account while developing the protocol.

Conclusion

The admission of homoeopathy effectively in the field of newborn care will enrich the homoeopathic students & fraternity as there will be value addition towards understanding epidemiology & mortality of neonatal stage. They will continue to practice effectively & be able to deal with new challenges that will continue to emerge in care of newborns. It is not possible for the community to wait for & rush for care at tertiary facilities for every sick or healthy newborn. No strategy can be a panacea for the emerging challenges in newborn care. It is here that the cost effectiveness & clinical effectiveness of Homoeopathy will come handy for the public & private health systems while dealing with masses for a developing country like India. Homoeopathy having proved its mettle in the field of child health will go a long way in arresting & controlling the problems at the beginning phase of each life. With a low Total Fertility Rate of 2.1 at the country level (NFHS 5, 2019-21) which equivalents the replacement level.

Declaration

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Conflict of interest

There is no conflict of interest regarding this article.

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