

Barriers to Early Initiation and Continuation of Breastfeeding in a Tertiary care Institute of Haryana: A Qualitative Study in Nursing Care Providers

JAI PAL MAJRA¹, VIJAY KUMAR SILAN²

ABSTRACT

Introduction: Ever increasing institutional deliveries in India has shifted the responsibility of timely initiation and continuation of breastfeeding from peripheral health workers and families to the nursing care providers of health facilities where the births take place. While institutional deliveries have increased to 72.6%, only 44.6% of the newborns enjoy early breastfeeding in India.

Aim: To study the barriers to early initiation of breastfeeding in institutional delivery.

Materials and Methods: A total 34 nursing care providers were selected randomly and five Focus Group Discussions (FGDs) were carried out. This Qualitative Study was conducted through FGDs among the nursing care providers of a tertiary care institute in the Indian State of Haryana, India.

Statistical Analysis: The analyses continued throughout the group discussions as the newly emerged themes were tested in the subsequent discussion. FGDs transcripts were analysed to enhance the robustness of the emerged domain.

Results: Major barriers to initiation of breast feeding identified included: lack of awareness regarding proper technique of breastfeeding and benefits of colostrum; breast abnormality like inverted/retracted nipples; obstetric/neonatal complications requiring specialised care; and cultural practices like giving pre-lacteals and gender discrimination. It was further reported that the manpower has not been rationalised with ever increasing number of institutional deliveries. The respondents though willing to promote early initiation and continuation of breastfeeding felt excessive workload as one of the major barriers due to multi-tasking nature of their job.

Conclusion: The new challenges to the early initiation and continuation of breastfeeding are emerging due to change in the place of delivery which needs to be addressed at the policy level.

Keywords: India, Institutional delivery, Rural

INTRODUCTION

Breastfeeding is a natural process required for the growth and development of the baby because it contains everything necessary for a newborn. Every mother can breastfeed her baby, given that the family, society and health care system act in synchronisation. First milk (Colostrum), is considered as the perfect food for the newborn and recommended to be given within the first hour after birth [1]. Substantial evidence are reported that breastfeeding decrease neonatal mortality and morbidity, and risk of dying due to sepsis, diarrhea and respiratory infections. Also, it has a protective effect against obesity in long-term [2,3]. However, a newborn can enjoy these benefits at fullest only when breastfeeding is started early and given exclusively, at least for initial months [3]. Although, breastfeeding is being promoted since long; however, huge gap still exists that is filled. The National Family and Health Survey-3 reported that only one-fifth (21.5%) of the newborns receive early breastfeeding and almost in a decade, we have reached to 41% only [4,5]. The institutional delivery rates are on increasing trends as National Rural Health Mission fill the gap between community and health system through communitization of the health system [6]. It is reported that institutional delivery and support of health care providers are the major cues to early initiation of breastfeeding [7-9]. The Government of India, in 2011, made it mandatory to keep the mother and baby in the hospital for at least 48 hours in case of normal delivery and seven days in case of caesarean

section [10]. This way, the baby has to stay (along with mother) in the hospital for the first few days in his or her life. So, early initiation of breastfeeding becomes an added responsibility on health care workforce especially in tertiary care institution that mainly caters cases sent from the peripheral facilities. The perception of care providers regarding the delayed initiation of breastfeeding is an understudied issue. With this background, we conducted a qualitative study among the nursing care providers of a tertiary care institute in the Indian State of Haryana, India, to know the barriers to early initiation and continuation of breastfeeding.

MATERIALS AND METHODS

To identify barriers to early initiation and continuation of breastfeeding, we gathered exploratory qualitative data through Focus Group Discussions (FGDs) among the nursing care providers during the breastfeeding week. We collected data during the month of August 2014.

A tertiary care institute, BPS Government Medical College for Women, Khanpur Kalan selected, Haryana, India was the site for this study. The Government of Haryana planned this institute to promote women's health in the state. This institute started in the year 2011 with the aim of recruiting 100 female students in MBBS course. It has provision of curative, preventive and rehabilitative services for all kinds of patients including Maternal and Child Health (MCH). However, MCH services contributed a

substantial proportion of the regular patient load. A total of 3500-4000 deliveries occurred yearly in this institute. All the nursing care providers are regularly posted on a rotation basis in labour room, maternity ward, and operation theatre of the Department of Obstetrics and Gynaecology. Hence, each of them has experience of every aspect of MCH related issues due to their close association with health care seekers in the institution.

Ethics

This study was done to improve the MCH related services in the institute. We maintained the anonymity of participants and confidentiality of information as per the ethical principles stated in Declaration of Helsinki. All participants gave verbal informed consent. All of the participants were hesitant in the presence of audio recorder, so, it was decided not to audio record the FGDs. After completing data collection, all the study participants were explained the current breastfeeding guidelines and role of nursing care providers in the facilitation of breastfeeding.

Data Collection

A team of three members consisted of a Moderator and two Assistant Moderators with a speciality in the field of Community Medicine conducted the data collection. The Moderator asked the questions and explored the emerged themes and Assistant Moderators took notes.

The nursing care providers in tertiary care hospitals are the first level care providers in maternity wards. They have an important role in the initiation and in counselling for the continuation of breastfeeding. Hence, their point of view has utmost importance in knowing the circumstances related to breastfeeding at such facilities. The nursing care providers who have worked since the start of the institute were considered eligible for participation in the study.

A total 34 participants were found eligible and we decided to conduct either maximum five FGDs. Every FGD included seven participants in each discussion, or to stop earlier in case of saturation of themes. All of the researchers prepared an FGD guide and translated it into local language (Hindi) for better understanding. This guide was used to explore the perceptions of participants on barriers to early initiation of breastfeeding through the flexible approach. We used similar topic guide with the same themes for all FGDs, and selected themes were agreed upon by two of the investigators to maintain the validity of the guide. The data saturation or exhaustion of themes was achieved in the fourth FGD and subsequently last FGD was done to confirm the saturation.

STATISTICAL ANALYSIS

We analysed the FGDs transcripts and documents in English. The analyses continued throughout the group discussions as the newly emerged themes were tested in the subsequent discussion. Hence, the initial analysis was inductive which was followed by the preparation of the utilization model to enhance the robustness of the emerged domain.

RESULTS

The results of this study [Table/Fig-1] are presented according to themes that emerge in FGD:

1. Mother related factors.
2. Newborn related factors.
3. Health care delivery related factors.
4. Social factors.

The verbatim of participants (nursing care providers) were mentioned according to the place of posting such as in labour room and maternity ward.

Mother related factors	Lack of Awareness	On proper technique of breastfeeding About benefits of first milk (Colostrum)
	Obstetric Complications	Complications in the third stage of labour Post delivery fatigue Psychological stress
	Breast Abnormality	Inverted or retracted nipple
	Co-morbidity	Mother positive for HIV, Hepatitis B
Newborn related factors	Need specialised care	Preterm or low birth weight baby, Fetal distress during delivery, Congenital malformation
Health care delivery related factors	Overburdened manpower	Deficiency of staff nurses Multitasking staff nurse
	Lack of antenatal counselling	Birth preparedness breastfeeding, correction of inverted or retracted nipple
Social Factors	Cultural beliefs and practices	Ritual of first feed by Paternal Aunt (Bua), Practices of giving Ghutti (Pre-lacteal)
	Gender discrimination	Feasting and rituals of birth of a boy, Mother reluctant to breastfeed a Girl child

[Table/Fig-1]: Barriers to early initiation and continuation of breastfeeding in tertiary care institute.

Mother Related Factors

Lack of Awareness: For most nursing care providers, lack of knowledge of benefits of breastfeeding especially regarding first milk (Colostrum) is the major barrier to the timely start of breastfeeding. The participants perceived that most of the mothers did not feel it much important to give feed immediately after delivery. If few of the mothers valued breastfeeds then, awareness of proper techniques or position are lacking, and it gets worse in case of primigravida where the first-time mother is hesitant. Nursing care providers who receive mothers shifted from labour room described the lack of awareness among mothers.

“(You) forget about early starting of breastfeeding because almost all of the mothers do not know much about the breastfeeding. Fortunately, if few want to do it then either they do not know how or they are not comfortable?”

The relatives have the immense pressure of not starting it so early that delayed start of breastfeeding and colostrum even if care providers counsel them (mother and guardians) again and again.

Obstetrics complications: Most of the pregnant women delivery at the study site (being a tertiary care institute) were referred from the peripheral health facilities. Care providers emphasized that most of the pregnant women referred from other health facilities undergoes any of the interventions such as episiotomy, caesarean section, manual removal of the placenta. These interventions cause substantial delay, ranging from an hour (episiotomy) to a day (Caesarean Section), to starting of breastfeeding.

“Look...we cannot expect every delivery to happen normally at this kind of hospital [tertiary care]. We get the maximum of referred cases where the trial of normal delivery already has had happened in peripheral institutes. There is no other option but episiotomy, instrumentation, and caesarean. (Off course) that takes time.”

A significant proportion of the pregnant women sequentially referred from one health facility to other peripheral health facilities lend up to the delivery room after prolonged, exhaustive painful labour that lead to post-delivery fatigue. It makes the early breastfeeding more uncomfortable for her. Besides, in few cases, management of postpartum haemorrhage and retained placenta or other complications are also contribute to delayed breastfeeding. In such cases mother is the foremost priority both for care providers and relatives and feeding gets delayed.

“When a mother comes to us after travelling from Primary Health Centre, Community Health Centre and the Sub-District Hospital, she is too exhausted to feed her baby immediately.”

The birth of a malformed baby that causes psychological stress to mother and family makes the situation worse as was also identified the cause of delay for initiation of breastfeeding. Two of the nursing care providers also mentioned that pre-existing psychiatric disorder delays breastfeeding for many days to not at all.

"We remember very clearly that a psychiatric patient who took our lots of effort in delivery and we could not convince her for breastfeeding."

Breast abnormalities and Co-morbidity

Many of the first-time mothers face problems in initiating breastfeeding because of the pre-existing breast abnormalities that are retracted and inverted nipple. Hence, early feeding of the baby gets delayed till the correction of retraction and inversion of the nipple. It is disheartening for them to know of these problems at such point of time. This stress is more evident in those mothers who are keen to feed their baby than who are reluctant. The participants elicited that these mothers were never told about such problems during pregnancy even though they repeatedly visited the peripheral health facilities for antenatal care. Nursing staffs who attends such cases have described this situation as the unacceptable reason.

"(Just imagine) everything (delivery) went well and mother is ready for feeding and all of sudden she comes to know (that) you have breast abnormality that need to correct. Without that, don't expect to breastfeed. Who is responsible for it."

Besides breast abnormality, other co-morbidities that include HIV, Hepatitis B delay the early feeding and in many cases mother or relatives refuse to give mother's feed. Families are not convinced even though baby has been given prophylaxis. A nursing care provider explained did painful story of such a mother.

"HIV and Hepatitis b positive mother did not even allow the baby on her bed. She [mother] said that at least my baby should not get it (HIV or Hepatitis B)"

Newborn related factors

Most of the nursing care providers reported the birth of preterm and low birth weight baby as significant causes of delayed breastfeeding. It is one of the most common reasons for a referral from the primary care facilities, as these are not well equipped to manage such cases. They highlighted that among these one-third needs intensive care that affects initiation and continuation of breastfeeding.

"Nobody (care provider) in the field (peripheral facilities) wants to do delivery of preterm cases. Just referral to the higher centre is a safe solution for them."

Participants also mentioned the birth of malformed baby with cleft lip and palate as reasons for the delay in few cases. Even nursing care providers are also not equipped to address the feeding issue in these babies, as is also felt by the nursing care providers.

Health Care delivery related factors

Deficiency of manpower: Almost all of the participants echoed that workload on staff nurses create a barrier to facilitation of early breastfeeding. There is a single multitasking staff nurse available per delivery, as the number of deliveries in tertiary care institutes is disproportionate to the available nursing staff. Sometimes more than one delivery happens simultaneously that occupy all the doctors and staff nurses.

"Just delivering a baby is not the only task in the labour room and maternity wards. Placenta removal, maintenance of IV fluids, assistance in episiotomy stitching are also to be done by that staff nurse apart from record keeping and maintaining drug stocks."

Lack of breastfeeding related counselling: The multitasking overworked staff nurses found the task of early initiation of

breastfeeding more daunting when the mothers have no knowledge about breastfeeding, retracted or inverted nipple. Antenatal counselling on breastfeeding and breast examination during Antenatal Check-up (ANC) at peripheral health centres can give support to tertiary care providers and also enhance the acceptability of early initiation of breastfeeding. A staff nurse expressed her basic expectation from the field health providers.

"Simple counselling (on breastfeeding) and breast examination can be of a great help to us in the facilitation of breast feeding."

Social Factors

Cultural belief and practices: Almost half of the mothers want to give Ghutti (pre-lacteal feed) to newborn. The practice of pre-lacteal feed is discouraged by the nursing care providers. However, few families are too firm to give it even if they have to give it secretly. This practice is not socioeconomic class specific, in fact, many educated mothers follow it. A staff nurse, who caught mothers giving ghutti, described her experience.

"No matter what if the family have decided to give ghutti, they will give it. Secretly may be. It disheartens a care provider when well-educated mothers do it."

The practice of giving ghutti follows the ritual of "Choochi Duhaai" (Cleaning of the breast) that means breast of mother will be cleaned or washed before putting the baby to it. This ritual is specific to be done by the paternal aunt (Bua), and hence, the baby has to wait for first breast feed till the aunt arrive. Followed by this, they discard the first milk because it is not believed healthy for the newborn. This whole process takes enough time to delay the breastfeed.

Over the period, it has been seen that many families are accepting the advice of not to give ghooti. Now, they call the paternal aunt before the delivery happen, so that, the baby has not to wait too long.

"Culture of discarding first milk (Colostrum) is still prevailing in the families, but people have started compromising on the ritual of Choochi Duhaai."

Gender-based discrimination: It is an important social issue that significantly delay early initiation of breastfeeding. If the newborn happens to be a baby girl, then mother either refuse to feed baby immediately or react reluctantly. Further, in case of twin baby (one being a girl), the birth of the second female baby and marital conflict, the early initiation of breastfeeding get delayed. Gender-based preference not affects the only female baby but also to the boy. Because family tend to follow all the rituals in case of the boy that delay the timely start of breastfeeding.

"Golden hour for initiation of breastfeeding is missed both for boy and girl as well. In case of boy, it is lost in feastings and rituals and if it happens to be girl...then they need time to come out of the shock....."

DISCUSSION

The National Health Mission (NHM) intends for 100% institutional deliveries to control the infant mortality rate and maternal mortality rate [11]. National Rural Health Mission (NRHM), one of the components of NHM, has succeeded in increasing institutional delivery to 72.6% [12,13]. It is known that the institutional delivery enhance the early initiation and continuation of breastfeeding [14,15]. India is committed for early and exclusive breastfeeding to its all newborns [16,17]. However, all is not well with our children's health. A report of World Breast Feeding Trends Initiative 2015 shows that only 44.6% of the newborns enjoy the early breastfeeding in India [18].

While institutional deliveries have increased, the responsibility of timely initiation of breastfeeding in these cases has shifted from peripheral health workers and families to the nursing care

providers of health facilities where the births take place. Therefore, we conducted this study to identify the barriers to timely initiation of breastfeeding perceived by the nursing care providers. The identified barriers perceived, for the purpose of analysis and interpretation of the results by the nursing care providers, are grouped into four domains namely maternal, newborn, health care delivery, social factors related.

The results of this study show that except the health care delivery related barriers, the perceived barriers reported by the nursing care providers are not different from the already known factors [19-29]. Though these barriers can be overcome by the motivation of pregnant/nursing mothers by nursing care providers of the Institute. However, the respondents felt excessive workload as one of the major barriers to initiation and continuation of breastfeeding due to multi-tasking nature of their job. Furthermore, it was reported that ever increasing number of institutional deliveries have compounded the situation, as the manpower has not been rationalised with the increasing workload [30].

We further observed that under or no preparedness of the mothers for breastfeeding including identification of abnormalities and variations during antenatal care at peripheral level health centres has also been identified as barriers. Birth preparedness by the health workers and community health volunteers has positive impact of the breastfeeding practices [22,31,32].

The new challenges to the initiation and continuation of breastfeeding are emerging due to change in the place of delivery that need to be addressed at the policy level. According to report of World Breastfeeding Trend Initiative 2015, India scored zero out of ten on Baby Friendly Hospital Initiative (BFHI) indicators. There is a need to reassess the status of BFHI, rooming-in, in all the institutions in the changing scenario [18,33]. Rationalisation of health manpower at institutions with the increasing workload due to ever increasing number of institutional deliveries. Universal implementation of community volunteers such as Yashoda in the labour room itself at all facility level will ensure early breastfeeding and will also create a support to nursing care providers [34].

The use of single topic guide for all FGDs and agreement between the investigators on the selected themes maximised the validity of the results. Also, our few of the themes were consistent with the previously reported research findings that further enhance the validity of the study.

LIMITATION

However, it is necessary to admit the limitations of this study. We reported the findings from a tertiary care institute; hence, the results may not be applicable to the other level of health facilities. The years of experience of a nursing care providers may have an influence on the reported perceptions. Fear of getting noticed by higher authority may have caused the respondents to conceal some of the perceived barriers.

CONCLUSION

Increased number of institutional deliveries has shifted the responsibility of early initiation and continuation of breast feeding on the nursing care providers of the respective institutions. This increased workload without rationalising the manpower, has been reported as the most important barrier to the initiation and continuation of breastfeeding among the babies delivered at the institutions.

RECOMMENDATION

It is recommended to rationalise the manpower in the institutions to ensure the initiation of breastfeeding within the golden hour. It is further recommended to ensure availability of community volunteers such as Yashoda in the labour room and postnatal wards.

ACKNOWLEDGEMENT

We acknowledge the support of Dr. Ramnika Aggarwal, Dr. Anita Punia, and Dr. Babita for supporting in conduction of group discussion. We are also thankful to all the nursing staff of BPS Government Medical College for Women, Khanpur Kalan, Sonapat, Haryana, India for participating in this study.

REFERENCES

- [1] WHO, Breastfeeding. Available from: <http://www.who.int/topics/breastfeeding/en/>. [Last accessed on 2015 Aug 11].
- [2] Hess C, Ofei A, Mincher A. Breastfeeding and childhood obesity among african americans: a systematic review. *MCN Am J Matern Child Nurs.* 2015;40(5):313–19.
- [3] Khan J, Vesel L, Bahl R, Martines JC. Timing of breastfeeding initiation and exclusivity of breastfeeding during the first month of life: effects on neonatal mortality and morbidity--a systematic review and meta-analysis. *Matern Child Health J.* 2015;19(3):468–79.
- [4] National Family Health Survey-3. Available from: <http://rchiips.org/Nfhs/nfhs3.shtml>. [Last Accessed on 2015 Aug 29].
- [5] UNICEF 2015, The State of World's Children. Available from: http://www.unicef.org/SOWC-2015_Summary_and_Tables.pdf. [Last accessed on 2015 Aug 26]
- [6] National Rural Health Mission, Evaluation study of NMH in 7 States. Available from: http://nrhm.gov.in/images/pdf/publication/Evaluation_study_of_NHM_in_7_States.pdf. [Last accessed on 2015 Aug 29].
- [7] Setegn T, Gerbaba M, Belachew T. Determinants of timely initiation of breastfeeding among mothers in Goba Woreda, South East Ethiopia: A cross sectional study. *BMC Public Health.* 2011;11: 217.
- [8] Kimani-Murage EW, Kyobutungi C, Ezech AC, Wekesah F, Wanjohi M, Muriuki P, et al. Effectiveness of personalized, home-based nutritional counselling on infant feeding practices, morbidity and nutritional outcomes among infants in infants in Nairobi slums: study protocol for a cluster randomised controlled trial. *Trials.* 2013;14: 445.
- [9] Adugna DT. Women's perception and risk factors for delayed initiation of breastfeeding in Arba Minch Zuria, Southern Ethiopia. *Int Breastfeed J.* 2014;9(1):8.
- [10] Janani-Shishu Suraksha Karyakram - Government of India. Available from: <http://nrhm.gov.in/janani-shishu-suraksha-karyakram.html>. [Last accessed on 2015 Aug 29].
- [11] Reproductive, Maternal, Newborn, Child and Adolescent Health - Government of India. Available from: <http://nrhm.gov.in/nrhm-components/rmnc-h/a/reproductive-maternal-newborn-child-and-adolescent-health.html>. [Last accessed on 2015 Sep 15].
- [12] District Level Household & Facility Survey-4. Available from: <http://rchiips.org/DLHS-4.html>. [Last accessed 2015 Sep 15].
- [13] District Level Household & Facility Survey-3. Available from: <http://rchiips.org/PRCH-3.html>. [Last Accessed on 2015 Sep 15].
- [14] Hawkins SS, Stern AD, Baum CF, Gillman MW. Evaluating the impact of the Baby-Friendly Hospital Initiative on breast-feeding rates: a multi-state analysis. *Public Health Nutr.* 2015 Feb; 18(2):189–97.
- [15] Dongre AR, Deshmukh PR, Rawool AP, Garg BS. Where and how breastfeeding promotion initiatives should focus its attention? A study from rural wardha. *Indian J Community Med Off Publ Indian Assoc Prev Soc Med.* 2010;35(2):226–29.
- [16] World Health Organisation. Innocenti Declaration. Available from: http://www.who.int/about/agenda/health_development/events/innocenti_declaration_1990.pdf. [Last accessed on 2015 Sep 16].
- [17] Breastfeeding Promotion Network of India, The Delhi Declaration on Infant and Young Feeding. Available from: http://www.bnpi.org/documents/Delhi_Declaration.pdf. [Last accessed on 2015 Sep 16].
- [18] World Breastfeeding Trends Initiative (WBTI) 2015. Arrested Development, all is not well with our Children's health. Available from: <http://www.worldbreastfeedingtrends.org/GenerateReports/report/WBTI-India-Report-2015.pdf>. [Last accessed on 2015 Sep 16].
- [19] Kumar A, Unnikrishnan B, Rekha T, Mithra P, Kumar N, Kulkarni V, et al. Awareness and attitude regarding breastfeeding and immunization practices among primigravida attending a tertiary care hospital in southern India. *J Clin Diagn Res JCDR.* 2015;9(3):LC01–LC05.
- [20] Kishore MSS, Kumar P, Aggarwal AK. Breastfeeding knowledge and practices amongst mothers in a rural population of north india: a community-based study. *J Trop Pediatr.* 2009;55(3):183–88.
- [21] Garg R, Deepti S, Padda A, Singh T. Breastfeeding knowledge and practices among rural women of punjab, india: a community-based study. *Breastfeed Med.* 2010;5(6):303–07.
- [22] Patel A, Banerjee A, Kaletwad A. Factors associated with prelacteal feeding and timely initiation of breastfeeding in hospital-delivered infants in india. *J Hum Lact.* 2013;29(4):572–78.
- [23] Ladomenou F, Kafatos A, Galanakis E. Risk factors related to intention to breastfeed, early weaning and suboptimal duration of breastfeeding. *Acta Paediatrica.* 2007;96(10):1441–44.
- [24] Nirupama Laroia, Deeksha Sharma. The Religious and Cultural Bases for Breastfeeding Practices among the Hindus. Available from: <http://online.liebertpub.com/doi/abs/10.1089/bfm.2006.1.94>. [Last accessed on 2015 Sep 16].

- [25] Legesse M, Demena M, Mesfin F, Haile D. Prolactal feeding practices and associated factors among mothers of children aged less than 24 months in Raya Kobo district, North Eastern Ethiopia: a cross-sectional study. *Int Breastfeed J*. 2014;9(1):189.
- [26] Rowe-Murray HJ, Fisher JRW. Baby friendly hospital practices: cesarean section is a persistent barrier to early initiation of breastfeeding. *Birth*. 2002;29(2):124-31.
- [27] Karkee R, Lee AH, Khanal V, Binns CW. Initiation of breastfeeding and factors associated with prolactal feeds in central nepal. *J Hum Lact Off J Int Lact Consult Assoc*. 2014;30(3):353-57.
- [28] Khanal V, Scott JA, Lee AH, Karkee R, Binns CW. Factors associated with early initiation of breastfeeding in western nepal. *Int J Environ Res Public Health*. 2015;12(8):9562-74.
- [29] Khanal V, Lee AH, Karkee R, Binns CW. Prevalence and factors associated with prolactal feeding in Western Nepal. *Women Birth J Aust Coll Midwives*. 2016;29(1):12-17.
- [30] WHO. Wanted: 2.4 million nurses, and that's just in India. Available from: <http://www.who.int/bulletin/volumes/88/5/10-020510/en/>. [Last accessed on 2015 Sep 16].
- [31] Lassi ZS, Das JK, Salam RA, Bhutta ZA. Evidence from community level inputs to improve quality of care for maternal and newborn health: interventions and findings. *Reprod Health*. 2014;11 Suppl 2:S2.
- [32] Kumar V, Mohanty S, Kumar A, Misra RP, Santosham M, Awasthi S, et al. Effect of community-based behaviour change management on neonatal mortality in Shivgarh, Uttar Pradesh, India: a cluster-randomised controlled trial. *Lancet*. 2008;372(9644):1151-62.
- [33] Ministry of Women and Child Development, Government of India. Rapid Survey of Children, 2013-14. Available from: http://www.wcd.nic.in/issnip/National_Fact%20sheet_RSOC%20_02-07-2015.pdf. [Last accessed on 2015 Sep 16].
- [34] Resources_ManualsAndGuidelines_YashodaOperationalGuidelines_New.pdf. Available from: http://www.in.undp.org/content/dam/india/docs/NIPI/Resources_ManualsAndGuidelines_YashodaOperationalGuidelines_New.pdf. [Last accessed on 2015 Sep 16].

PARTICULARS OF CONTRIBUTORS:

1. Professor and Head, Department of Community Medicine, BPS Government Medical College for Women, Khanpur Kalan, Sonapat, Haryana, India.
2. Assistant Professor, Department of Community Medicine, BPS Government Medical College for Women, Khanpur Kalan, Sonapat, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Vijay Kumar Silan,
2068, Sector-3, HUDA, Rohtak-124001, Haryana, India.
E-mail: Vijay.silan@gmail.com

Date of Submission: **Jan 25, 2016**
Date of Peer Review: **Mar 19, 2016**
Date of Acceptance: **Apr 30, 2016**
Date of Publishing: **Sep 01, 2016**

FINANCIAL OR OTHER COMPETING INTERESTS: None.