



Intervention on Knowledge, Attitude and Practices of Maternal and Child Health among Rural Women of Uttarakhand

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ABSTRACT

The health of mothers and children is a key indicator of general health in any society. Throughout the world, there is increasing concern and interest in maternal and child health care. Despite that, the morbidity and mortality rates especially in developing countries continue to be alarming. Given the magnitude of these problems and the services available, much improvement has not been witnessed. The present study seeks to assess knowledge, attitude and practices of rural women towards maternal and child health and examined KAP about the process of reproduction, family planning methods, antenatal care, perinatal care, hygiene and nutrition of child. Towards this end, an intervention module was developed and implemented. Pre and post-test were conducted to study the impact of the intervention. The results revealed that during the pretest phase majority of the respondents had moderate knowledge about the signs of pregnancy, importance of first trimester of pregnancy, however gaps were found in knowledge regarding immunization and welfare programmes and services for mothers and young children. A paradigm shift in the knowledge, attitude and practices of rural women towards maternal and child health was observed post intervention. The proportion of women believing in myths like feeding sweetened water or honey to new born, putting oil in baby's ear decreased post intervention. Inappropriate practices followed pertaining to hygiene and sanitation like non sterilization of feeding bottle before every feed and irregular napkin changes also improved between pre and post intervention.

INTRODUCTION

The early years of life are of prime significance from the formative perspective and this time vitally influences growth and development of the child. Good health is cyclical in nature. A woman's health status during a particular phase of life affects the next phase. When a woman becomes a mother, she passes the gift of good health to her child and therefore women's health is important during all phases of their lives, from childhood to adulthood (Park, 2008). Mother and children below the age of 15 years constitutes the major section of the population in almost all countries and are vulnerable to morbidity and mortality in the terms

of pregnancy, childbirth in case of mothers, and growth and development in the case of children. Every year, at least 200 million women become pregnant worldwide. Of these, approximately 585,000 women were reported to die each year as a result of pregnancy and childbirth related complications like hemorrhage, hypertensive disorders, sepsis and abortion (Kassebaum et al., 2014; Say et al., 2014). Effective high-quality care during this critical period is likely to reduce the numbers of maternal deaths, stillbirths and early neonatal deaths significantly (Bhutta et al., 2014).

In India, women of 15-45 years of age and children up to 15 years of age together constitute nearly 65.0 per cent of the total population and considered to be a vulnerable group. Maternal and

neonatal mortality and morbidity continue to be high despite the existence of national programs for improving maternal and child health. This could be attributed to factors like non-utilization or under-utilization of services. The maternal and neonatal deaths can be appropriately addressed with antenatal, intranatal and postnatal care which aims to ensure that every woman remains healthy and by the end of pregnancy there is a healthy mother and a healthy baby. Despite of umpteen numbers of programmes running and a huge amount of exchequers money being spent on these programmes, the present status shows that improvement in these areas has not met the expected goals. One pragmatic way of achieving this target is to educate people about the issue and the extant schemes and programmes associated with it as a famous proverb says “knowledge is empowerment”. AICRP-CD Pantnagar team as part of their project “Parenting and reproductive health of agrarian families” took this initiative to identify existing knowledge gaps among rural women about various issues concerning maternal and child health. To educate women about these issues an intervention programme was designed and executed. The impact of such community focused interventions in improving KAP was largely unexplored. Therefore, this study also worked in the impact assessment of the intervention.

METHODOLOGY

District Udham Singh Nagar and Nainital of Uttarakhand State were purposively selected for data collection due to observed lack of awareness on various maternal and child health issues. From the selected districts, a total of seven nearby villages were selected for drawing the sample. The sample comprised of a total of 300 rural women including pregnant women and women having children upto 6 years of age enrolled in the *anganwadis* of the villages. Self-Structured Questionnaire was developed to assess the knowledge, attitude and practices about Maternal and Child health each comprising of 15 items. Knowledge component was answered on a three point rating scale i.e. Yes, Not sure, No and was categorized as Poor, Moderate and Good regarding process of reproduction, immunization, signs of pregnancy, government welfare schemes for mothers and young children etc. Attitude component was measured on a three point rating scale i.e. Agree, Doubtful, Disagree and was categorized as Favorable, Neutral and Unfavorable towards use of contraceptives for birth spacing, ideal family size, regular health checkups, intake of proper nutrition, emotional care and support of partner/family members during pregnancy, positive environment for the well-being of pregnant women etc. Whereas, practice component was measured on two point i.e. Yes and No and was categorized as Healthy and Unhealthy. Healthy practices included intake of nutritious diet during pregnancy, delivery in hospital, exclusive breastfeeding up to 6 months, feeding colostrum, regular sterilization of feeding bottles, napkin changes at frequent interval etc. The questionnaire was translated into Hindi and a pilot study was carried out with 30 women (not part of the study) to test the clarity of questions. Necessary modifications were made.

The intervention module was designed to extend information on issues like awareness on benefits of safe sex, family planning and birth spacing starting from the pre-pregnancy period, during pregnancy and after childbirth, unwanted pregnancy, legal grounds

for safe abortion, consequences of unsafe abortion, warning signs in pregnancy, antenatal care, information and counseling on self care at home, safe sex, HIV, exclusive breastfeeding, nutrition and infection prevention, routine care and follow-up etc. Strategies used in the intervention module ranged from interpersonal communication to community oriented communications. It included home visits, Focus group discussions, counseling sessions, lectures, brainstorming sessions, group meetings etc. Audio visual aids such as power point presentation using LCD projector, video films, charts, display boards, posters, and pamphlets were used. New technologies like mobile apps were also used in disseminating information. The intervention module was mailed to the specialists of Psychology, Human Development, Extension Education, and Social Work, Medical Science of various Universities and changed in the light of recommendations given by them. The *anganwadi* workers were approached and the purpose of the study was explained. A written consent was taken from respondents by explaining the contents and intention of the consent form. In addition, all the women were assured of the confidentiality of their personal information. Data were collected in four phases; the pilot testing of the research tools, the pre test data collection, implementation of the intervention module, a repeat assessment (after a gap of 6 months from the third phase) i.e. post test data collection.

RESULTS AND DISCUSSION

The percentages in Figure 1 reflect that during the pretest majority (91%) of the respondents reported having average level of knowledge followed by 26 per cent who had good knowledge relating to maternal and child health. The scenario changed after the intervention as around 54 per cent of the respondents came under the average level followed by 46 per cent who had good knowledge relating to maternal and child health. It was comforting to see that none of the respondents reported having poor knowledge and unfavorable attitude towards maternal and child health even during the pre test phase. The results are in agreement with the study by Aiga et al., (2016) which reported that the proportion of mothers who knew the need for exclusive breastfeeding necessary

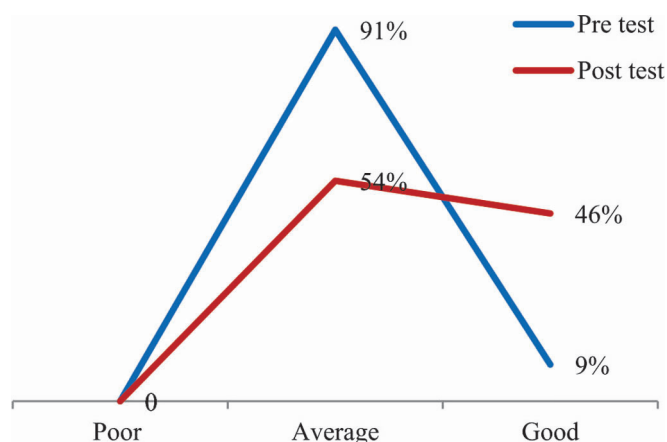


Figure 1. Percent distribution of rural women regarding their knowledge of Maternal and Child Health (N=300)

during the initial six months significantly increased between pre and post interventions. The proportion of those practicing exclusive breastfeeding significantly increased between pre and post interventions, too. Several other studies have also revealed that educational intervention programme lead to a significant gain in knowledge in the post test phase (Kumar, 2017; Biyalla et al., 2018; Kamau et al., 2019; Ranjal et al., 2015; Banu & Yashoda, 2018; Rani, 2018).

The statement made by one of the respondents during an FGD also supports the results “I was not aware of the warning signs in pregnancy and therefore suffered a miscarriage last year. Now I understand how important is to have a knowledge about your own body”. Another respondent shared “I had no clue that I was pregnant until one day I had a severe abdominal pain. After going through a scan, I got to know that I had been pregnant for 3 months. If I knew about the signs I would have been more careful”.

The Figure 2 depicts percentage distribution of maternal and child health attitude of respondents. It is apparent that majority of the respondents (88%) had neutral attitude followed by 12 per cent who reported having favorable attitude towards maternal and child health in the pre test phase. In the post test phase, it was found that 70 per cent of respondents reported having neutral attitude followed by 30 per cent who had favorable attitude. A positive shift was witnessed as respondents having favorable attitude rose from 12 percent to 30 percent post intervention. However it was heartening to see that intervention did change the attitude towards a positive side.

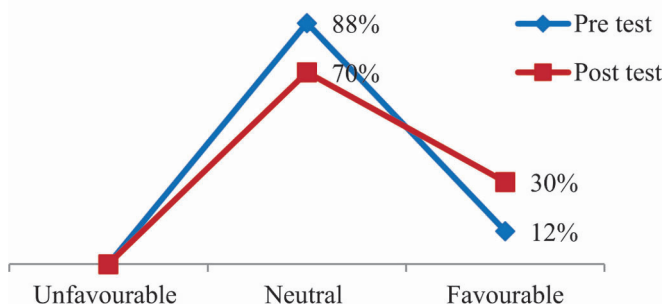


Figure 2. Percent distribution of rural women regarding their attitude towards maternal and child health (N=300)

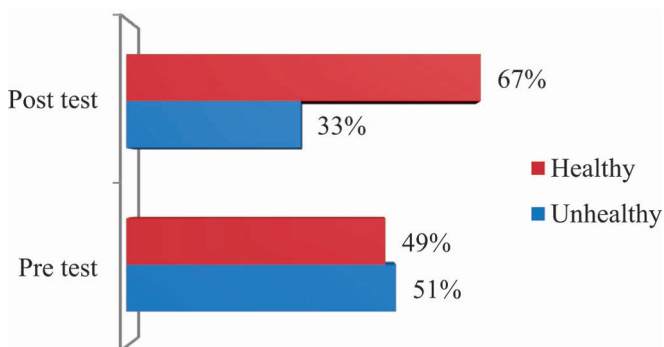


Figure 3. Percent distribution of rural women regarding their practices relating to maternal and Child Health (N=300)

The Figure 3 highlights that during pretest 51 per cent of the respondents reported following unhealthy practices. The results are in line with a study by Hajela (2014) which reported that 68.3 per cent of mothers practiced *kajal* application and 72 per cent mothers instilled oil in ears of baby. The scenario changed post intervention as majority (67%) of the respondents started to follow healthy practices. The results are supported by a study by Sangwan and Manocha (2009) which indicated that impact of intervention on the mother’s knowledge was found increasing in experimental group than their counterparts. Feeding practices adopted by the family were also found to be better and improvement in immunization status was also noted in experimental group.

A number of focus group discussions, group meetings, personal home visits were held during the study and it was observed that respondents had become more aware of their rights and responsibilities towards maternal and child health and the intervention resulted in the integration of these changes in their day to day life and conduct. Some of these changes were palpable like better sanitation and hygiene. Some of the pregnant women were carrying their own water bottles which clearly indicated towards their raised level of knowledge and more importantly its practice. Respondents also shared their own narratives with the team regarding practices they have started following at their home and village level. They reported following healthy practices like sterilizing feeding bottles in boiling water before every feed and changing napkin after every 3-4 hours even if it is not soiled. Another important breakthrough achieved because of the intervention was with regard to the changes that took place not only among the respondents but also their kith and kin. One of the respondents mother in law during one of the FGDs expressed that she used to think that the yellow thick milk (colostrum) is unhealthy for the baby and they were refrained from feeding that to child during her lactating days. She told that she learnt from her daughter in law that colostrum is infact very healthy and essential for building the immune system of the child. There were sessions during the intervention that also focused on using new technologies like use of apps for pregnancy. Although only few respondents reported using smart phones but they were also making very limited use of it. In this particular context one respondent shared “I used smartphone for calling, clicking pictures, watching videos, using whatsapp etc. but in the program we were told about some apps related to pregnancy that gives useful information and can help to track pregnancy. I am 3 months pregnant right now and I am using this app. It tells about the development of child going inside my body. It also gives daily tips for a healthy pregnancy. It is very informative and I am glad I am using it”. Respondents also shared that their enhanced level of knowledge has raised their self-confidence and self-esteem too. A study by Patil and Khadi (2018) has also highlighted the need for intervention studies on familial aspects to enhance overall mental health status. Another study by Balogun et al., (2020) reported that access to internet-enabled phone increased primary health care providers’ knowledge of maternal health. Knowledge of maternal health in turn increased positive attitudes towards maternal health. It was commonly observed that the food items provided through *anganwadis* for pregnant and lactating mother were not always reaching the intended

beneficiary. The reason behind this is the lack of the understanding that these food items were supplements to support nutritional requirement of the women. Rather the commonly held conception was that it is a free service for the family. If they had the knowledge about the importance of these supplements, it would have reached the intended beneficiary and would have gone a long way in improving the statistics pertaining to maternal and child health.

CONCLUSION

Maternal and child health literacy plays a key role in better utilization of maternal and child health services. Intervention aimed at raising Maternal and child health literacy can play a significant role in better utilization of the services. The crucial aspect of these interventions is knowledge enhancement which eventually translates into change in attitude and practices. Intervention programmes that target the areas of knowledge and practice should be an integral part of the government programmes and services. Such interventions along with the existing government services can substantially improve the maternal and child health statistics and can play a catalytic role in enhancing the overall well-being of the population

REFERENCES

- Aiga, H., Nguyen, V.D., Nguyen, C.D. Nyugen, T. & Nyugen, L. (2016). Knowledge, Attitude and Practices: Assessing maternal and child health care handbook intervention. *Bio Medical Central Public Health*, 16(129), 32-43. <https://doi.org/10.1186/s12889-016-2788-4>
- Balogun, M.R., Boateng, G.O., Adams, Y.J., Ransome-Kuti, B., Sekoni, A. & Adams, E.A. (2020). Using mobile phones to promote maternal and child health: Knowledge and attitudes of primary health care providers in southwest Nigeria. *Journal of Global Health Reports*, 4, e2020060. <https://doi.org/10.29392/001c.13507>
- Banu, N. & Yashoda, K. (2018). Maternal & child health knowledge among pregnant women. *The Pharma Innovation Journal*, 7(9), 277-283.
- Bhutta, Z.A., Das, J.K., Bahl, R., Lawn, J.E., Salam, R.A., Paul, V.K. & Walker, N. (2014). Can available interventions end preventable deaths in mothers, newborn babies, and stillbirths, and at what cost? *Lancet*, 384, 347-370. [http://doi.org/10.1016/S0140-6736\(14\)60792-3](http://doi.org/10.1016/S0140-6736(14)60792-3)
- Biyalla, R., Moola, R.S. & Arepalli, S. (2018). Awareness about mother and child health services among tribal women of reproductive age group in Kurnool division of Kurnool district, Andhra Pradesh. *International Journal of Community Medicine and Public Health*, 5(7), 3111-3115. <http://dx.doi.org/10.18203/2394-6040.ijcmph.20182657>
- Hajela, S. (2014). Knowledge, attitude and practice of mothers about perinatal care. *International Journal of Medical Research and Review*, 2(4), 300-305. <https://doi.org/10.17511/ijmrr.2014.i04.07>
- Kamau, M., Mirie, W., Kimani, S. & Mugoya, I. (2019). Effect of community based health education on knowledge and attitude towards iron and folic acid supplementation among pregnant women in Kiambu County, Kenya: A quasi experimental study. *Public Library of Science One*, 14(11), e0224361. <https://doi.org/10.1371/journal.pone.0224361>
- Kassebaum, N.J., Bertozzi-Villa, A., Coggeshall, M.S., Shackelford, K.A., Steiner, C., Heuton, K.R., Gonzalez-Medina, D., Barber, R., Huynh, C., Dicker, D., Templin, T., Wolock, T.M., Ozgoren, A.A., Abd-Allah, F., Abera, S.F., Abubakar, I., Achoki, T., Adelekan, A., Ademi, Z. & Lozano, R. (2014). Global, regional, and national levels and causes of maternal mortality during 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 384(9947), 980-1004. [https://doi.org/10.1016/S0140-6736\(14\)60696-6](https://doi.org/10.1016/S0140-6736(14)60696-6)
- Kumar, R.S. (2017). Knowledge on utilization of maternal and child health services among rural married women. *International Journal of Research and Review*, 4(5), 110-113.
- Park, K. (2008). *Park's textbook of preventive and social medicine*. 19th ed, M/s Banarsidas Bhanot, Jabalpur.
- Patil, M.S. & Khadi, P.B. (2018). Impact of intervention on innovative strategies to optimize mental health of farmers. *Indian Journal of Extension Education*, 54(1), 155-160.
- Rani, J.A. (2018). Dissemination of nutrition knowledge among rural women and children for the nutritional security and assessing perceived socio-economic impact. *Indian Journal of Extension Education*, 54(1), 1-5.
- Ranjan, K., Kumari, B. & Laxmikant (2015). Impact of nutrition education on knowledge of rural women. *Indian Journal of Extension Education*, 51(3), 54-57.
- Sangwan, S. & Manocha, A. (2009). Maternal knowledge and child health. *Journal of Human Ecology*, 25(1), 23-27. <https://doi.org/10.1080/09709274.2009.11906135>
- Say, L., Chou, D., Gemmill, A., Tuncalp, O., Moller, A.B., Daniels, J., Gulmezoglu, A.M., Temmerman, M. & Alkema, L. (2014). Global causes of maternal death: A WHO systematic analysis. *Lancet Global Health*, 2, e323-e333. [http://doi.org/10.1016/S2214-109X\(14\)70227-X](http://doi.org/10.1016/S2214-109X(14)70227-X)