

Assessment of Asparagus Powder Distribution Program on Breastfeeding Promotion: Perspectives from Mothers and Health Service Providers, 2017



Government of Nepal
Nepal Health Research Council



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Asparagus Powder Distribution Program for Breastfeeding Women: An Assessment of Perspectives from Mothers and Health Service Providers, 2017

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Acronyms

DHS	Demographic and Health Survey
DoA	Department of Ayurveda
ERB	Ethical Review Board
FCHV	Female Community Health Volunteer
FGD	Focus Group Discussion
KII	Key Informant Interview
LMICs	Low and Middle Income Countries
MUAC	Mid-Upper Arm Circumference
NHRC	Nepal Health Research Council
SPSS	Statistical Package for the Social Sciences

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Prof. Dr. Anjani Kumar Jha
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Executive Summary

World Health Organization (WHO) recommends exclusive breastfeeding starting within one hour after birth until six months with continued breastfeeding for at least till one year. The Breast milk contains nutrient proteins, non- protein nitrogen compounds, enzymes, lipids, oligosaccharides, hormones, growth factors, host defense agents, vitamin A, C, B complex, binding proteins, lysozyme and antibodies as well as many other factors that build a strong and healthy human being. Prolactin is the hormone responsible in producing milk. Ideally, women can produce enough milk to meet their infant's demand. However, insufficient milk production is a common problem in Nepal or around the world. Insufficient milk production is one of the most common reasons for discontinuing breastfeeding.

Ayurveda is a system of medicine that is based on use of herbs and herbal formulations for providing comprehensive and holistic treatment for human health improvement. *Asparagus racemosus*, traditionally known as *Shatavari* is one of the important medicinal herbs that has been used in Ayurveda since pre-vedic time because they were safe to use, cheap and easily available, had no side effects and no residual effects on both lactating women and baby. It belongs to Asparagaceae family. It is being traditionally used as female reproductive tonic. *Shatavari* has important role to maintain health of female as having action of *Rasayan* and *Balya*.

The Department of Ayurveda has initiated the distribution of Asparagus powder among lactating women since 2066/67 to support breast milk secretion. The drug distribution program comprises supply of Asparagus powder at the Zonal/District hospitals and Ayurvedic dispensaries along with health education on exclusive breastfeeding to improve child nutritional status. Women receiving services from Zonal/District hospitals and Ayurvedic dispensaries who exclusively breastfed their babies are required to take a regular dose of Asparagus powder for six months. Then, women and their infants are regularly assessed for their health and nutritional status.

This study assesses the effectiveness of the Asparagus powder distribution program on breastfeeding promotion. Moreover, the study assesses the mother's and health service provider's perspectives on the effectiveness of Asparagus powder distribution program.

Study used multiple methods to collect the data from three districts that were selected randomly from three ecological belts (Mountain, Hill and Tarai), one from each belt. Dolakha, Panchthar, and Rupandehi districts were selected considering the ecological belts.

Furthermore, from each district, one Ayurvedic center/dispensary that distributes Asparagus powder to lactating women was selected. In the selected center, we conducted one key informant interview (KII) with focal person at dispensary and one KII with health center officials to collect providers' perspectives precisely. Also, we conducted two focus group discussions (FGDs) in each district with lactating women who have used Asparagus powder in last six months. Specifically, one FGD with the lactating women those were using the Asparagus powder from the health center and one FGD with the same group treated at the dispensary. Thus, a total of 6 KIIs with providers and 5 FGDs with lactating women were conducted.

The study revealed that Asparagus powder was distributed to all the women who had child less than six months of age without assessing the sufficiency of milk production across the districts. In some communities, the Asparagus powder was distributed from the immunization center whoever visited the centre for vaccination. Also, FCHVs distributed the Asparagus powder to those who did not visit the center. The main reason of mass distribution was to cover the women those not visiting the Ayurveda health centre.

Among those women who have been using the Asparagus powder, instruction regarding dosage was confusing and inconsistent. In some district, they took 2 mg two times a day, whereas in some areas 6mg twice a day. They were prescribed to take one spoon. However, the information on spoon size was not clear. Moreover, clients were explained that the Asparagus powder has no side effects to anyone even among lactating women if it is consumed more than the recommended dosage. Since the dose was not clear to the clients, a guideline with clear instruction on dose, duration, possible side effects, complications and its effectiveness would be instrumental in order to promote use of Asparagus powder.

Study revealed that very few lactating women were using the Asparagus powder, mainly due to the lack of awareness on the breastfeeding promotion program. So, airing message through different media would play a vital role on breastfeeding promotion.

As there was inconsistency in record keeping system in different districts, it would be helpful to prepare a guideline on record keeping and organize training to the service providers on record keeping and its importance, strengthening the Health Management Information System. Since Female Community Health Volunteers (FCHVs) establishes link between health facilities and community members. So, mainstreaming FCHVs to continuous improvement of program have been crucial to the program's success.

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Chapter 1

Introduction

1.1 Background

Under nutrition remains a major public health problem throughout the low and middle income countries (LMICs) and it attributes over 50% of the under-five child deaths each year due to preventable causes (1-4). About ten million children under five die each year in LMICs (1). Nearly four million of those are neonatal deaths, may not preventable by addressing severe malnutrition, but a significant proportion of the remaining six million may be preventable in this way. Out of which one million child deaths (out of six million) are associated with severe malnutrition (5).

Moderate malnutrition contributes more to the overall disease burden than severe malnutrition since it affects many more children, even if the risk of death is lower. Approximately, two percent of children living in developing countries suffer from severe acute malnutrition. Likewise, one in ten of sub-Saharan African and one in six of South Asian children suffer from moderate acute malnutrition, which is equivalent to approximately 60 million children suffering from moderate malnutrition (5,6). According to NDHS 2011, in Nepal approximately three percent of under five years children, were severely wasted (7). Malnourished children who do survive are more frequently ill and suffer from the life-long consequences of impaired physical and cognitive development. The consequences of malnutrition are serious and life-long, falling hardest on the very poor (8).

The immediate implication of under-nutrition is weight loss and faltering growth, as well as increased susceptibility to disease. The long-term effects of underweight and stunting have intergenerational implication as well. Stunted girls who reach motherhood are more likely to give low birth weight babies, who in turn are at risk of undernourished.

Among the underlying causes of under-nutrition, lack of exclusive breast feeding up to six months, lack of breast feeding up to two years, food insecurity, lack of access to a diverse and nutrient-dense diet remains a challenge. Likewise, Infectious diseases are rampant and sanitation and hygiene are unsatisfactory. Moreover, merely a third of infants are initiated to breastfeeding within one hour of birth though 70% are exclusively breastfed during the first six months. Only 65% of children receive appropriate complementary feeding at six months (11).

WHO recommends exclusive breastfeeding starting within one hour after birth until a baby is six months (7). Breast milk comprises of nutrient proteins, non-protein nitrogen compounds, enzymes, lipids, oligosaccharides, hormones, growth factors, host defense agents, vitamin A, C, and B complex, binding proteins, lysozyme and antibodies as well as many other factors that builds a strong and healthy human being (12). Prolactin is the hormone responsible to produce milk. Most women can produce enough milk to meet their infant's demand. However, insufficient milk production is a common problem. Low milk supply is one of the most common reasons for discontinuing breastfeeding (12).

Agents promoting the secretion and flow of breast milk are known as galactagogues. They include foods, herbal medicines and pharmaceutical drugs. Many cultures have special foods that are thought to enhance milk production. Most of these substances have not been scientifically evaluated but traditional use suggests that it is safe and some are effective as well (13).

Asparagus racemosus, traditionally known as *Shatavari* is one of the important medicinal herbs for human health. It is being traditionally used as female reproductive tonic. *Shatavari* or *Satmuli* is a very important medicinal plant, which is used in many (allopathically) incurable diseases in Ayurveda and in Himalayan traditional medicine system (15).

Shatavari literally means “having 100 spouses” and Ayurveda texts accurately claim that *Shatavari* strengthens a woman to the point where she is being capable of producing thousands of healthy ova (16).

***Asparagus racemosus* as feed supplement:**

Asparagus racemosus may constitute a very important component of food supplement in the animal diets because of their higher availability of nutrients. Crude protein, crude fiber, ether extract, nitrogen free extract and ash content have been analyzed and found that this herb is nitrogen free extract and having minerals like Ca, Mg, Fe, Cu, Zn, etc (16).

***Asparagus racemosus* as an antioxidant:**

Antioxidants are intimately involved in the prevention of cellular damage, the common pathway for cancer, aging, and variety of diseases. *Asparagus racemosus* possess antioxidant properties. Metabolic extract (100mf/kg BW P.O.) given orally for 15 days could increase the antioxidant i.e. superoxidase dismutase, catalase and ascorbic acid, whereas could significantly decrease in lipid peroxidation (16).

Intervention

The Department of Ayurveda has initiated the distribution of Ayurveda drug (*Asparagus* powder) to promote breastfeeding among lactating women since 2066/67. The drug distribution program comprises the supply of *Asparagus* powder at the Zonal/District hospitals and Ayurvedic dispensaries and also provides health education on exclusive breastfeeding. Women receiving services from Zonal/District hospitals and Ayurveda dispensaries are required to take the regular dose of *Asparagus* powder for six months to enhance exclusively breastfeeding. Women and children were regularly assessed for their health and nutritional status. In this context, this study has been proposed to assess the effectiveness of the drug distribution program.

1.2 Objective

General objective

- To assess the effectiveness of Asparagus powder distribution program in breastfeeding promotion.

Specific objectives

- To review the trend on Asparagus powder distribution;
- To appraise mothers' perspective regarding the use of Asparagus powder on breastfeeding promotion; and
- To appraise health providers' perspective on the effectiveness of Asparagus powder distribution program on breastfeeding promotion.

Chapter 2

Methodology

2.1 Study design

This study used multiple methods to appraise women's and service provider's perspectives in relation to the effectiveness of Asparagus powder distribution program on breastfeeding promotion. We used quantitative method to assess the trend of Asparagus powder distribution, and we reviewed the record of past three fiscal years (FY 2071/72-2073/74). To assess the effectiveness of Asparagus powder distribution program, qualitative method was used. The tools used were Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs).

2.2 Sampling techniques

Three districts were selected randomly from three ecological belts (Mountain, Hill and Tarai), one from each belt. From each district, we sampled one Ayurvedic center and one dispensary who distribute Asparagus powder to the lactating women. In the selected center, we conducted one Key informants interview (KII) with focal person at dispensary and one KII with health center staff in order to collect providers' perspectives. Also, we conducted two focus group discussions (FGDs) in each district with lactating women who have used Asparagus powder within last six months. One FGD from health center and one FGD from dispensary were conducted with the clients those were using Asparagus powder. Thus, a total of 6 KIIs with providers and 5 FGDs with lactating women were conducted.

2.3 Study duration

The total duration for this study was three months starting from March 2017 to May 2017. Data collection started from the second week of April till last week of April, 2017. Data coding, entry and analysis was carried out till second week of May, 2017.

2.4 Enumerators selection

Enumerators were selected from experienced research assistants; all of them had an academic background in public health or nursing. Enumerators were interviewed by a panel of experts. Six enumerators were recruited through an interview process.

2.5 Enumerators training

A two-day' training was conducted for enumerators. Enumerators were trained on the study tools and data collection procedures during the training. The training included both theoretical and practical sessions, and small group mock interviews. Experts from NHRC and Department

of Ayurveda (DoA) were invited to deliver lectures and clarify on the topics included in the research tools. Focus of the training was on clarity of content, and practices the interviewing techniques. Exercises were performed to ensure participants had clear understanding of the tools, techniques, and ethical aspects of the research. They also discussed about practical difficulties that may arise during data collection, and ways to tackle those difficulties. The tools were tested during the training and necessary revisions were incorporated.

2.6 Data collection tool and technique

FGD and KII guidelines were developed adapting OECD guidelines. These guidelines are mainly used for program evaluation. This guideline primarily assesses relevancy, effectiveness, impact, efficiency and sustainability.

The interview guides were translated into the Nepali to ensure the meaning of the questions is maintained. Before finalization, interview guides were pre-tested during enumerator training on the last day to ensure that the languages and approaches are meaningful and understandable.

2.7 Data management and analysis

Interviews with health facility staff were conducted by trained interviewer. The study coordinator collected and stored all the documents from data collectors, including paper copies of consents and data collection forms. The study coordinator retained the source documents (without identifiers) in a secure location (i.e. a locked drawer).

KIIs with lactating women were conducted by six trained enumerators and were recorded for accuracy (if women agree during consent process). Audio recording of the KIIs were checked for clarity and a written summary of key data was also noted after the interview. The enumerators were responsible for direct transcription of audio recordings, and then translated into English for coding and analysis. Each interview and FGD was coded independently using inductive thematic analysis by two members of the research team. Differences in coding was discussed and adjusted to ensure consistency.

Background characteristics and trend were analyzed in SPSS 20 version. For categorical variables, frequency and percentage were calculated.

2.8 Ethical consideration

Approval was obtained from Ethical Review Board (ERB) of Nepal Health Research Council (NHRC). The objectives, risks and benefits of the study were shared with each participant. The participants were fully informed about their rights to decline or withdraw from participation in the study if desired. Written consent was obtained from all participants.

2.9 Limitation of the study

Since the study use qualitative method to assess effectiveness of Asparagus powder distribution program on breastfeeding promotion, the result cannot be quantified in numerical terms.

Chapter 3

Findings

3.1 Trend of distribution of Asparagus powder

Figure 1 depicts the increasing trend of Asparagus powder use by lactating women over the last three fiscal year (FY2071/72-2073/74). The distribution of Asparagus powder from dispensary was slightly higher compared to health facilities across the districts (Figure 2). It was observed that the use of the powder was highest among women aged 20 to 34 years (Figure 3).

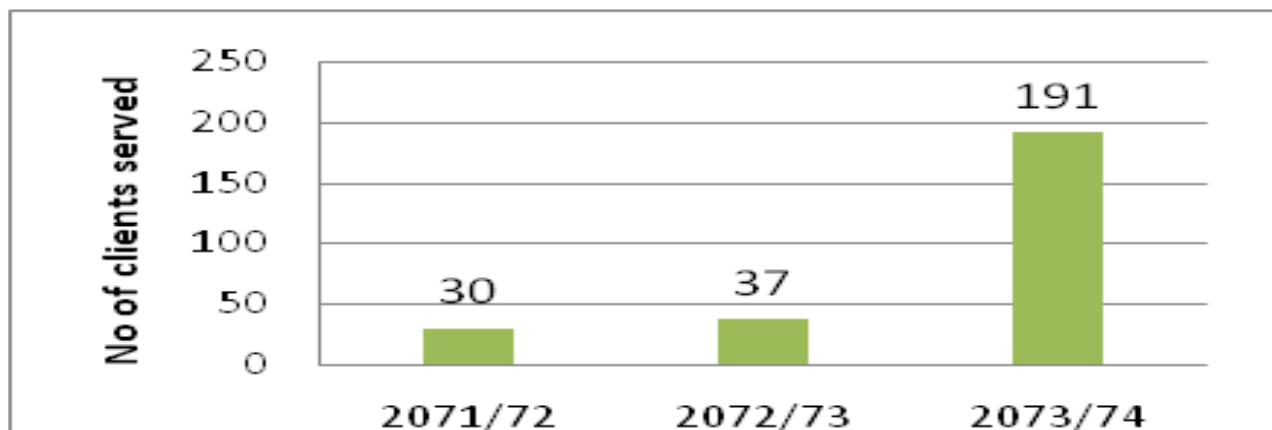


Figure 1: Trend of Asparagus use by lactating women across the fiscal years 2071/72 to 2073/74

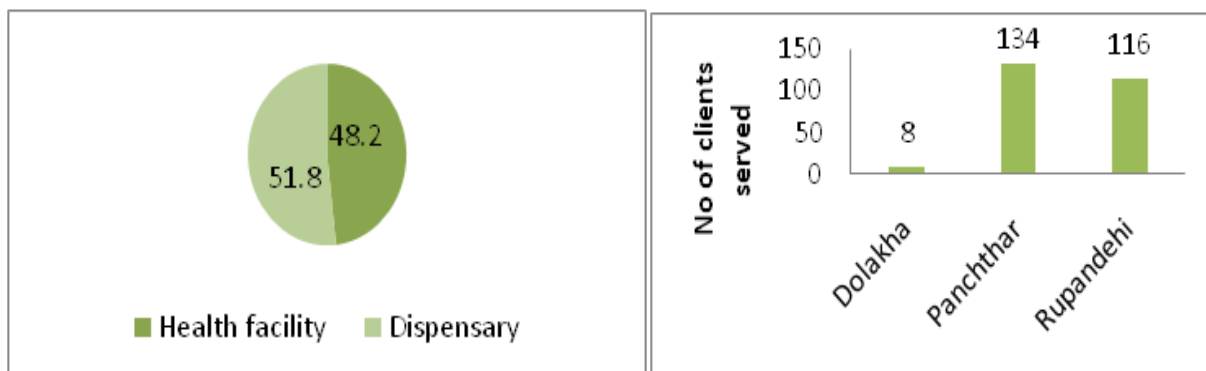


Figure 2: Asparagus powder distribution by facility type, by districts.(2071-2074)

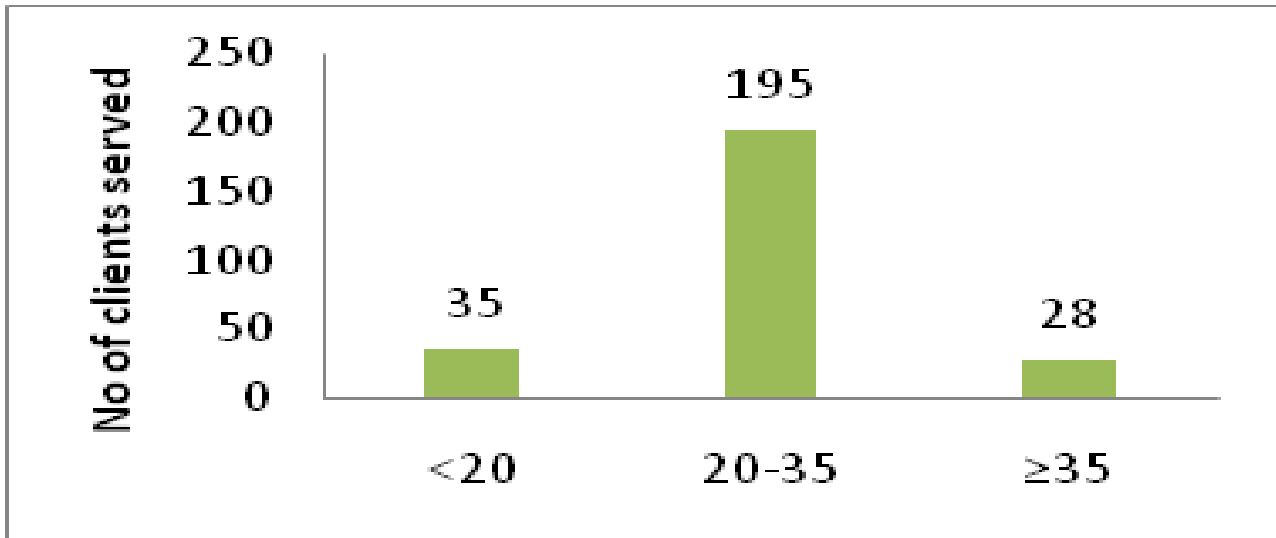


Figure 3: Age distribution of women who received Asparagus powder (2071-2074)

3.2 Insufficient milk production

Insufficient breast milk production was common problem among recently delivered women; approximately 10% of the women have had the problem across the communities, especially among the women who had delivered their baby by C-section, which is prevalent nowadays (app. 30-35% women have been delivering by C-section). In order to feed their child, such women do use commercial formula products.

“In our community, among recently delivered women, insufficient breast milk production is very common. And, most of such women do feed lactogen to their child in order to fulfill the requirements.”

-FGD (Service user)

3.3 Practices to improve breast feeding

The study showed that several ways are in practice to promote breastfeeding. Those all practices depend on the cultures, taboos, beliefs and thoughts of the communities residing in the districts. There is a belief of cold and hot food. Study revealed that community use thymol seed, liquid diet, different multiple pulses, animal foods, oil massage in order to improve production of breast milk.

3.4 Knowledge about Asparagus powder

Study revealed that there is a low awareness on Asparagus powder distribution program including its use, benefits, etc. The people who resides nearby the dispensaries or the health centers were aware of this program; however, awareness was low among those who resides in the remote areas. But, people were aware about *Shatavari (Kurilo)* and its use for the breast milk production of cows and other animals.

3.5 Source of information

Mass-media initiatives that have been effective in increasing awareness including locally aired radio drama and community radio talk shows featuring content on breast feeding promotion. Radio advertisements, leaflets, posters, wall posters, street dramas and community/school interaction programs have been in-place to inform communities about this program.

“We have been providing the information about availability of Asparagus powder and its effect through different media like radio, newspaper, through FCHVs and through school education program.”

-KII (Service provider)

3.6 Criteria for the mother selection

There had been a guideline to select the participant. A lactating woman who has child less than six months of age, irrespective of sufficiency of breast milk production was selected for the study.

Study revealed that the powder was distributed to all the lactating mother who had child less than six months irrespective of sufficiency in milk production. The powder was distributed to all the lactating mothers visiting the immunization center. In some communities, FCHVs was used to distribute the powder irrespective of health status or breast milk production status. The main reason of the mass distribution was that the women never visited the health facilities with the problem of insufficient breast milk production. Thus alternate approach had to be used to include the entire lactating mother in this survey

“Women are not coming with the problem of insufficient breast milk production but they are coming with the complain of child health or their child is not growing properly/well.”

- KII (Service provider)

“We have been providing the powder to all the women who are breastfeeding not only to the women who have problem of insufficient breast milk production.”

-KII (Service provider)

“We are providing powder to all women to make our program successful”

-KII (Service provider)

“During pregnancy and recently after delivery, women do face difficulty to move around and visit health facilities so FCHV can easily distribute the powder to such mothers. After mobilizing FCHVs there is an increase in Asparagus user.”

-KII (Service provider)

Study revealed that before drug distribution, the service providers took history of breast milk production while in some communities they measure the height, weight and Mid Upper Arm Circumference (MUAC) of child to assess the nutritional status of lactating women as well as child. However, to assess breast milk production status they do not have any protocol. They provide Asparagus powder to all the lactating women within their reach.

“We don’t have any standard guideline or protocol for the selection of mother, we assume insufficient breast milk production depending on the information provided by mother. We do follow up visits and take feedback from the immunization center from where we provided the powder.”

-KII (Service provider)

Furthermore, it was suggested to use FCHVs initially for the data collection to assess the sufficiency of milk production, and after assessment, powder should be distributed to the women who have breast milk insufficiency problem. However, the reason behind for the distribution of powder to all women is; Asparagus powder has positive impact and it can help to have better health.

3.7 Use of Asparagus powder to promote breastfeeding

Insufficient breast milk production can lead to early introduction of complementary food and stoppage of breastfeeding, which can cause malnutrition to the children and results in poor health which ultimately has various impacts on child development.

Study revealed that many women started Asparagus powder to promote their own and their child health and nutritional status. Since, after delivery some of the women cannot produce sufficient breast milk due to various reasons, so, Asparagus powder helped them to produce adequate breast milk and protect their child from malnutrition.

“I have been using this powder [Asparagus powder] in order to produce sufficient breast milk which ultimately helps to make my child healthy.” - FGD (Service user)

3.8 Instruction provided to the patients/clients

Study revealed that service providers provide information regarding the dose and duration of the powder that has to be used. They were informed to take one table spoon of the powder two times a day mixing with milk or with warm water if milk is not available:

“Use small one spoon but if bigger use half spoon” -KII (Service provider)

“We have been prescribing with 3mg / two times a day” -KII (Service provider)

However, Information regarding the doses was confusing among women across the districts. The doses were varying from 2mg to 6mg two times a day. They have been taking the powder one spoon but they were not clear about the size of spoon. Also, they said that it is herbal drug, so there are no side effects and it wouldn't be harmful even if women consume more.

3.9 Impact of Asparagus powder use

Positive impact:

Majority of women expressed that “Asparagus powder” improved the health status of mother and their child. It also helped to improve the breast milk production and reduced the back pain.

“After I had this medicine, I do feel energetic, having more milk production and improved my child health status” -FGD (Service User)

Negative Impact:

Each drug has potential side effects and adverse effects. Since, every individual is different, so even with same drug their experience could be different. Likewise, different people have different experience with use of “Asparagus powder”, some felt the taste as bitter, and some experienced vomiting, seasonal fever, diarrhea, etc.

3.10 Suggestions

This program is effective but it should be implemented from grass root level with specific guidelines. This program should be aired by using different media continuously. Whereas, there is lack of resources, in order to create awareness and it should be available throughout the year.

Also, there is insufficient human resource for this program so there is a need of additional human resources. In-service training would be instrumental to gear up the program and enhance knowledge and skills.

Monitoring and supervision should be must in order to regulate the program continuously and also to tackle any problem. At dispensary level, there is insufficient drugs and budget which results stock out periodically.

Due to lack of staff we are not able to keep proper record keeping.

-KII (Service provider)

We need FCHVs to reach the program down to the grass-root level and as FCHVs do not have any knowledge regarding Ayurveda, there is need of adequate training to FCHVs.

-KII (Service provider)

3.11 Other information

Study revealed that there is need of awareness on other components which directly or indirectly affect the nutritional status of child and women. The service providers do inform women about the hygiene and sanitation and its importance. They also explain the women not to lift heavy weights, wash hands with soap before feeding the child and after defecation, feed child every 3-4th hourly, and consume other nutritious diet like pulses, green leafy vegetables, and animal foods. But, in some communities, women expressed that they didn't have any such information from the providers and have not been practiced, they just received the powder and went back to home.

"We are not getting any other information just billing our card and got the powder and went back home."

-FGD (Service user)

Chapter 4

Conclusion and Recommendations

Conclusion

Good nutrition is a prerequisite for the national development of countries and the wellbeing of individual. Although problems related to poor nutrition affect the entire population, women and children are especially vulnerable because of their unique physiology and socioeconomic characteristics. Adequate nutrition is critical to children's growth and development.

Study was conducted to assess the effectiveness of Asparagus powder distribution program on breastfeeding promotion. Study revealed that most of women consume Asparagus powder in order to improve their own health and their child health status. Study showed that breast-milk insufficiency in the communities across the districts (~10%), and there are several home-based practices on the ground to enhance breast milk production. To name few, use of Thymol seed, different pulsed soup, cows' milk and other green leafy vegetable are widely prevalent.

Majority of women expressed that "Asparagus powder" improved their health status. It also helped in breast milk production, reduced the back pain and improved health of child as well. Study further revealed that there is inconsistency on doses due to absence of guidelines, issue of recording and reporting, stock out of drugs etc. are the measure concerns in relation to quality of care. Study reported that there is a need of sustainable approach to create awareness on Asparagus powder and its effect on breast milk production, FCHVs could be a medium to foster awareness on breast feeding promotion.

Recommendations

Demand generation:

Since there is low awareness on the Asparagus powder distribution program as a breastfeeding promotion was observed, mass-media initiatives featuring breastfeeding promotion could be an approach to create awareness.

To improve quality of care:

Treatment guidelines with clear instructions on drug doses, duration, possible side effects, complications and its effectiveness could be developed and used in order to improve quality.

Uniform record keeping system should be promoted since lack of/inconsistencies in record keeping were observed across the districts. Adequate training and guidelines would be instrumental to enhance recording and reporting system.

Since Female Community Health Volunteers (FCHVs) establish link between health facilities and communities. Main streaming FCHVs to continuous improvement of program can be crucial to the program's success.

Next steps:

A more rigorous assessment with high scientific rigor would help to assess the effectiveness of Asparagus powder programming in breastfeeding promotion.

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Annexes

Annex I: Key Informants Interview guideline

Assessment of Asparagus Powder Distribution Program on Breastfeeding Promotion: Perspectives from Mothers and Health Service Providers

औषधी खुवाउने व्यक्तिहरूसँगको प्रश्नावली			
Elements	Key Issues	Main Question	Probing Question
Relevancy		<p>१. यो औषधी किन दिनुपर्छ ?</p> <p>२.समुदायमा यसको जनचेतना कस्तो छ, त्यसको जानकारी कसरी जगाउनु भयो ?</p> <p>३.समुदायमा बच्चाको लागि दुध अपर्याप्त हुने समस्या कतिको देख्नु भएको छ ?</p> <p>४. यो औषधी सुरु गर्नु भन्दा पहिला समुदायमा दुध बढाउन कुनै घरेलु बिधिहरू प्रयोग भएको हजुर लाई थाहा छ ? छ भने कस्ता कस्ता बिधिहरू प्रयोग भएका थिए?</p>	<p>१. कस्तो आमालाई दिने ?</p> <p>२.समुदायमा कति मान्छेहरू यसबारे जानकार छ ?</p> <p>३.समुदायमा स्तनपायी आमामा दुध बढाउने उपायहरू के के छ ?</p>
Effectiveness		<p>१. यो कार्यक्रममा सेवाग्राहीलाई छान्ने तरिका के थियो ?</p> <p>२. औषधी वितरण गर्नुभन्दा अगाडी केहि जाच गर्नुभयो, भयो भने के जाचगर्नुभयो ? सेवाग्राहीलाई छान्ने तरिका के थियो ?</p> <p>३. एक पटकमा एक जनालाई कति औषधी कति दिनको लागि वितरण गर्नुभयो ?</p> <p>४. औषधी कसरी बनाउनु हुन्छ र यसको सेवनको निर्देशन कसरी दिनुहुन्छ ?</p> <p>५. औषधीवितरण गर्दा आमालाई के के जानकारी दिनुहुन्छ ?</p>	<p>१.कस्तो समस्याभएको आमालाई दिनुभयो ?</p> <p>२.दुध कम भएको नभएको अथवा अरु केहि जाच गर्नुभयो ?(शारीरिक जाच, बच्चाको तौल, अन्य</p> <p>३. औषधीको dose duration (३ ग्रामको निर्देशन कसरी, कति दिन सम्मलाई दिएको ?)</p>
Impact		<p>१. अहिलेसम्म औषधीको केहि नराम्रा प्रभाव देखिएको छ, छ भन्ने कस्तो छ?</p> <p>२. त्यसको प्रभाव कसरि निवारण गर्नभएको छ?</p> <p>३. औषधी सेवनगर्ने व्यक्तिहरूको कस्तो प्रतिक्रियापाउनह भएको छ?आमा र बच्चाको स्वास्थ्यमा केही फरक पाउनह भएको छ?</p>	

Efficiency		<p>१. एक व्यक्तिलाई पुरा समय औषधी सेवन गराउदा कतिखर्च गर्नुपर्ने हुन्छ ? त्यो खर्च के के मा कतिकति लाग्ने गरेको छ ?</p> <p>२. यस औषधीबाहेक अरु विकल्पहरू के के छन् ? ति विकल्पहरूको तुलनामा यसका फाइदा बेफाइदाहरू के कस्ता छन् ?</p> <p>३. औषधी सेवन गर्नेहरू र नगर्नेहरूमा के फरक देख्नुभएको छ ?</p>	
Sustainability		<p>१. तपाईंको अनुभवमा यो कार्यक्रम कतिको प्रभावशाली छ ? छैन भने प्रभावकारी बनाउन के के गर्नुपर्छ ?</p> <p>२. यो कार्यक्रम कति अवधिसम्म चलाउनु पर्छ र यसमा आर्थिक भार कतिको पर्छ ?</p>	

Annex II: Focus Group Discussion guideline

Assessment of Asparagus Powder Distribution Program on Breastfeeding Promotion: Perspectives from Mothers and Health Service Providers

आमाहरुको लक्षित समुहको प्रश्नावली			
Elements	Key Issues	Main Question	Probing Question
Relevancy	१. औषधीखानुको कारण	१. तपाईंले यो औषधी कसरी प्रयोग गर्न थाल्नु भयो ? कसरी / के भएर स्वास्थ्य केन्द्र पुग्नु भएको थियो? (कहाबाट जानकारी प्राप्त भयो ?) २. तपाईंले कहिले देखि यो औषधी खान थाल्नु भएको हो ? औषधी खादाको तपाईंको अनुभव कस्तो रह्यो ? ३. स्वास्थ्य केन्द्र आउदा के अपेक्षा लिएर आउनु भएके थियो ? त्यो पूरा भयो कि भएन?	१. के समस्या भएर औषधी खान थाल्नु भयो ? २. औषधी खान सुरु गर्दा बच्चाको उमेर कति थियो ?
Effectiveness	१. औषधीका असरहरु	१. यो औषधी प्रयोग गर्दा के कस्ता असरहरु (सकरात्मक तथा नकारात्मक) महशुस गर्नुभएको छ ? छ भने ति के के हुन् ? २. यो औषधी सेवन गर्न थालेपछि बच्चालाई दुधनपुग्ने जस्ता समस्याहरु देखापरे कि परेनन् ? ३. के औषधी स्वास्थ्यकर्मीले भने बमोजिम खाई र हनुभएको छ? भविष्यमा पनि यसलाई निरन्तरता दिन चाहनुहुन्छ ४. स्वास्थ्यकर्मीले तपाईंलाई अरु के के जानकारी दिनुभएको थियो ?	१. औषधी खादाको आफ्नो स्वास्थ्यमा के खिएको फरकहरु २. बच्चालाई आवश्यकता अनुसार दुध पुग्यो कि पुगेन ? ३. औषधीको सेवन परामर्श अनुसार गर्नुभएको छ ? ४. यो औषधी वितरण गर्ने बेलामा स्वास्थ्यकर्मीले बच्चा तथा आफ्नो स्वास्थ्य सम्बन्धी गर्नुपर्ने स्याहार सम्बन्धी जानकारी पाउनुभयो ?

Efficiency	१. स्वास्थ्य केन्द्र पुग्न लागेको समय खर्च	१. तपाईं बस्ने ठाउँबाट स्वास्थ्य केन्द्र कति टाढा छ ? त्यहाँ सम्म पुग्न अनि नियमित औषधी सेवन गर्ने क्रममा यातायात, जाँदा आउदा लाग्ने खर्च सहित कति गर्नुहुन्छ? औषधी निःशुल्क पाउनुभयो कि भएन? २. औषधी सेवन गर्ने क्रममा केहि कठिनाई महशुस भयो ? भयो भने के कस्ता कठिनाईहरू महशुस गर्नुभयो ?	१. स्वास्थ्य केन्द्र पुग्न कति खर्च र समय लाग्छ ? २. निर्देशन नबुझेको, औषधी लिन जाँदाको कठिनाई, बाटो लामो भएर, औषधीको स्वाद कस्तो ?
Impact	१. औषधीका प्रभाव तथा सेवन गर्न भएको	१. समष्टिगत रूपमा तपाईंलाई यो औषधी कतिको उपयोगी लाग्यो ? के अन्य व्यक्तिलाई औषधी खान सहभाष दिनुहुन्छ? २. तपाईंको समुदायमा बच्चाको लागि दुध अपर्याप्त हुने समस्या कतिको देख्नु भएको छ ?	
Sustainability		१. यस कार्यक्रमको निरन्तरताको लागि तपाईंको सुझाव के के छन् ? २. यो औषधीबाहेक अन्य घरेलु उपायहरू के के छन् ? ३. तपाईंले अरु उपायहरू अपनाउनु भयो कि भएन? अपनाउनु भयो भने के ति उपायहरू सागसागै यो औषधीको पनि प्रयाग गर्नु भएको थियो ?	

Annex III: Consent form

नेपाल स्वास्थ्य अनुसन्धान परिषद्

रामशाहपथ, काठमाण्डौ ।

पृष्ठभूमि : नेपाल स्वास्थ्य अनुसन्धान परिषद् बाट स्तनपायी आमालाई मातृशिशु सुराक्षार्थ दुग्धवर्धक औषधि वितरण सम्वन्धी कार्यक्रमको प्रभावकारिता सम्वन्धी अध्ययन हुन गईरहेको छ ।

उद्देश्य : यस अध्ययनको मुख्य उद्देश्य दुग्धवर्ध औषधीको वितरणको प्रभावकारिता र यस कार्यक्रम प्रति आमा तथा औषधी वितरकको दृष्टिकोण बुझ्ने ।

गोपनियता : तपाईंले दिएका सुचना तथा सुझाव गोप्यताका साथ यस अनुसन्धानमा मात्र प्रयोग गरिनेछ । तपाईंको व्यक्तिगत विवरणहरु यस प्रश्नावलीबाट हटाई तपाईंको परिचायत्मक कोण मात्र प्रयोग गरिनेछ ।

सहभागिता : यस अध्ययनमा तपाईंको स्वेच्छिक सहभागिता हट्नेछ । तपाईंले चाहेको खण्डमा वा कुनै पनि बेला अलगिन सक्नुहुनेछ । यसरी अलगिन भयो भने पनि तपाईंलाई कुनै क्षतिहुने छैन, तपाईंलाई कुनै हर्जना तिर्नु पर्नेछैन, तथा अन्य कुनै पनि असर पर्ने छैन । तपाईंलाई यस अध्ययनको बारे कुनै पनि जिज्ञासा भएमा जुनसुकै बेलामा अध्ययन टोलीलाई सम्पर्क गर्न सक्नुहुनेछ ।

लिखित मन्जूरीनामा पत्र सहभागीको परिचय नम्बर :

मलाई यस सर्वेक्षणको उद्देश्य र आधार, अन्तरवार्ता प्रक्रिया, आफ्नो भूमिकाको बारेमा पुर्ण जानकारी छ । दिईएको जानकारीमा म सन्तुष्ट छु । मलाई मेरो स्वेच्छाले कुनै पनि बेला यो अनुसन्धानबाट अलग हुन सक्ने कुरा जानकारी छ । मैले यो जानकारी पत्र आफैँले पढेको (.....) वा अन्तवार्ताकर्ताले पढेर सुनाएर (.....) जानकारी गराउनुभएको छ ।

हस्ताक्षर : म सभैमा सहभागी हुनका लागि मन्जुर छु ।

अन्तरवार्ता दिनेका नाम थर

साक्षी बस्नेको नाम थर

अन्तरवार्ता दिनेको सहिछाप

साक्षी बस्नेको सहिछाप

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