ISSN: 13412051
Volume 25, Issue 04, April, 2020

Community Needs Assessment Base-Education Model to Empower Exclusive Breastfeeding Cadres in Karanganyar District, Central Java – Indonesia

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ABSTRACT— Exclusive breastfeeding has become one of the simplest methods to reduce children mortality and increase life expectation. Unfortunately, the prevalence of exclusive breastfeeding for Indonesia remains low. Refering to in-service training program under empowerment theory, education was to enable knowledge development. The objective was to offer education model based on community needs assessment for the exclusive breastfeeding cadres. The research team used cross sectional and observation coupled with sequential mixed methods. They collected data in Karanganyar District - Indonesia. They worked in two stages: (1) the model for cadres was designed from 5-12 September 2019 and (2) one-day training program was delivered in 22 September 2019. The community needs assessment was adopted from Centers for Disease Control and Prevention model, including: Community member's identification, curriculum and assessment, questionnaires development, websites selection, method and data collection, and informant emancipation. Cadre learning model consists of two steps: self-directed learning and best practices group mentoring involved 34 participants. Qualitative data were collected with document review, interview, discussion, and observation. Quantitative data were collected with pre-test and post-test. Manuscripts capturing fact-findings were provided. Wilcoxon Z was to examine the differences between pre-test and post-test scores. Findings concluded that Community Needs Assessment Base Education Model have positive impacts, including: (1) significant contribution to the success stories of exclusive breastfeeding program, (2) better teamwork among cadres for different villages, and (3) more skills and longer days for the exclusive breastfeeding practices among mothers.

KEYWORDS: Health, Education, Breastfeeding, Cadres, Indonesia.

1. INTRODUCTION

On becoming accessible for all, primary health cares have always been important public debates for health services to outreach universal health coverage and significant contribution to achieve the first United Nations Sustainable Development Goals (SDGs), prioritized social healthy life, and promoted well-being for all. [1] The second SDG goal is to end starving, ensure foods safety, improve nutrition, and support sustainable agricultural production. Here, exclusive breastfeeding has become one of the best programs to reach the second SDGs. Success stories on exclusive breastfeeding programs mean a lot, not only success for nutrition consumption, but also triggering factor for other coming success stories after the success stories for foods supply, changing behaviour, and enhancing knowledge. [2] Exclusive breastfeeding was defined as zero consumption of any additional liquid or hand-made foods but vitamin, mineral or liquid dropped medication till six-month old baby. [3] This intervention is the least cost to reduce under six-month baby mortality. It is also the easiest method for baby and infant foods provision assuring better status of child life expectation and improve children achievement in less developed countries. [4]

Summary of the main findings from case studies regarding exclusive breastfeeding promotion and supports

asserted that, first of all, community members offered resources required for the breastfeeding promotion and supports and even asking more involvement of the community facilitators to use their local resources. Second, program framework offered more opportunity for community base breastfeeding promotion and support. Third, breastfeeding practices might change in short period hence cadres should ensure and maintain it. Fourth, effective relation and advocacy needed to set up doable program priorities, to anticipate policy impacts, to adopt local social norms and values, and to improve awareness in every household. Fifth, training process and outputs should increase interpersonal counselling, especially 3R - the Right messages, delivered to the Right person, at the Right time. Sixth, partnership, leadership, conceptual and operational definitions, and resources should all be available for learning facilitation. Finally, monitoring and evaluation were to measure progress, identify achievable/unreachable strategies, and find out more programmes adjustment. [5] Health education was well-designed system to expand equal access for quality, opportunity and management in healthy life literacy program. It could increase practical new knowledge. It should improve skills conducive for individual and society at large. It would not only provide information and communication, but it would also strengthen motivation and self-efficacy. It would help individual or collective actions to have better healthy life styles. Moreover, it could also share social, economic, and environmental condition leading to either positive or negative risks for healthy life. [6] One way to strengthen the roles and functions of voluntary cadres on health services includes public rewards and recognitions for selected cadres having done great jobs for the society. They always got respects by health service beneficiaries. They got the right training for knowledge and proper coaching for practices by supervisors. Then, local government, social key-resource persons, and staff from community health service centers should identify volunteers, transparently select and collectively agreed to knowledgeable voluntary candidates, then supporting selected cadres with honorarium to make it better works. [5]

Education will have significant contribution for reaching program objective by combining both program needs and cadre needs. It is more efficient for both program and cadres. It is the driving force to reach higher productivities, job-satisfactions, and sustainable programs. [7] In this context, community needs assessment base-education model will effectively empower exclusive breastfeeding cadres. [8] With systematic curriculum, education will improve individual competencies supported by institutional capacity to have better performance. [9] The research team had adopted community needs assessment initiated by Center for Disease Control and Prevention, CDCP. [10] It included six steps: identify community team, describe scope of assessment, develop questionnaires for participants, select websites, decide methods and data collection sources, and elaborate key-resource persons. One model for changing behavior in health and workable for both interpersonal and community was called Natural Helper Model, NHM. In this model, it is important that community health worker, CHW, is a community member or a social networker trained for the provision of information and social supports to facilitate practices of proper exclusive breastfeeding behavior. Key concepts of NHM included general health advisors, peer group mentors, and/or social media networkers. [11] Empowering education in Paolo Freire's basic theory suggested that both subject (trainer) and object (learner) will have equal social status for learning interaction, respectable involvement, emancipatory dialogues, and zero instructional talks. It is learning model to encourage trainers and participants for sharing experiences. In learning, problem solving methods should neither be dichotomic instructor-student relationship nor separate cognitive from narration. Education must support high order thinking skills for self-discovery using emancipatory dialogues among participatory learners. Education is conscientization shifting from knowledge to action. [12] The foundation of empowering education offers three major strategies: (i) Listening – understanding themes and essential problems to solve; (ii) Participatory group dialogues – using problem-base approaches respecting social equality and equity among learners; and (iii) Action – doing activities to reach substantial progressive changes to voice collective interests. All together will produce participants working hand-in-hand with self-commitment, self-efficacy,

and socially collective values. [13] Education model designed for in-service training with andragogy approach was to empower cadres to have better health service performance – soft skills development, performance monitoring, and problem-solving practices. To reach these objectives, two components involved blended learning: encouraging self-directed learning and using lessons learnt from best practices. This education model is relevant to John Dewey's Learning-by-Doing theory that every health and breastfeeding cadre is able develop initiative, innovation and creativity in the workplace. They can do searching skills for relevant topics. They can share during individual coaching and group performance mentoring. They can integrate new knowledge – case studies, demonstration, games, infography, videography, animated works, YouTube films, webinars, statistics, etc., into daily jobs. All together will create learning process and outputs conducive for growing professional competencies. [1] World Health Organization, WHO, had defined Community Health Workers, CHW [15] and suggested that community health workers should be members of the community where they work, selected by and responsible for community on all activities. Health service system may support cadres but not necessarily part of the official healthcare service providers. They got shorter training sessions, simpler tasks, and less responsibility. They are volunteers adding numbers of the staff for the current limited numbers of professional health caregivers. Both males and females, CHW should be opened job positions. It is important that CHW shall be familiar with social and cultural norms, even religious values living in Indonesia to ensure acceptability and ownership by community. Roles and activities of CHW would be, but not limited to: (i) CHW provides contribution for social development to expand access for basic healthcare services (ii) CHW maintains effective and efficient implementation of sustainable programs; (iii) CHW programs were neither panacea for weak healthcare system nor access expansion of healthcare services for people living in remote/marginal areas; (iv) CHW is trivial without community supports, commitment and involvement; (v) CHW have voluntarily worked with small amount of earnings.[16] Supported by literatures coupled with identified current issues, strategies, policies, and programs on exclusive breastfeeding behavior, the research team will promote roles of education and training to increase cadres' service performance. The main objective of the research is to design community needs assessment base education to empower exclusive breastfeeding cadres.

2. Methods

This research design used cross sectional data collected with neutral ethnographic observations and sequential mixed methods. It was qualitative as the first approach coupled with quantitative as secondary approach. [17] The qualitative approach allowed embedded case studies – several major variables – dependent and other independent ones. It was decided based on research objectives before researcher team did field study. [18] Quantitative research used paired sample t-test) to examine possible impacts of education on the increased knowledge of exclusive breastfeeding programs. This research was done twice: 5 - 12 September 2019 and 22 September 2019 in Kaliboto Village, Mojogedang Sub-District, Karanganyar District, Central Java Province Indonesia. Both purposive and snowball sampling techniques were used for qualitative data collection. Then, the research team used quota sampling technic to select one informant per social group called Rukun Tetangga and/or sub-village, dusun. In other words, there were five informants per Integrated Service Post, called Pos Pelayanan Terpadu, Posyandu. Data collections for case studies were done with documents review, in-dept interview, group dialogue, and emancipatory observation. Documentary review provided data regarding current government policies and implementation of recent exclusive breastfeeding programs. In-dept interview was to share breastfeeding experiences with 15 key informants joining Posyandu activities. Here, social interactions, emancipation and involvement during a series of regular monthly gathering among cadres and mothers caregiving with babies either growing or loosing members were very enouraged for learning. For group dialogues, the research team invited informants for sharing real life experiences as cadres. Both validity and reliability of the qualitative data

were triangulated through resources, methods, and researcher team. Empowering education reached 34 participants. Case study analysis used textual transcripts and manuscripts made during in-dept interview, emancipatory observation, and group dialogue. Paired sample t-test was used to describe the impacts of empowering education on improving knowledge of exclusive breastfeeding among cadres.

3. Findings and Discussion

Fact-findings from the case study of community needs assessment base education model to empower exclusive breastfeeding cadres were provided as follows:

(i) Community team includes: head of Village/Kampong or sub-village, head of integrated health service post, Posyandu, head of spatial group, Rukun Tetangga, member of the Institute for Rural Community Empowerment (IRCE), Coordinator of Family Welfare Movement, Pemberdayaan Kesejahteraan Keluarga (PKK), and midwifes, Bidan.

(ii) Evaluation scope covered: knowledge and exclusive breastfeeding practices for education model based on community needs assessments to empower exclusive breastfeeding cadres.

(iii) Two main questions were discussed: What are the empowering education model? How to implement the empowering education based on community needs assessment for cadres in exclusive breastfeeding? Using empowerment approach and informal ethnographic processes during training sessions, the research team used two general questions followed by nested questions toward getting more answers and more detailed data on exclusive breastfeeding practices and oxytocin massage.

(iv) Website selection: should be accessible for all cadres, mothers, key persons, and citizens, head of households, social group in every sub-village/villages, PKK, and Posyandu to ensure they can access information and communication for coaching and mentoring mothers living with babies.

(v) Data Collection Method: document review, participatory in-dept interview, group dialogue, and emancipatory observation.

(vi) Data resources: include policies, performance, district, provincial and national health statistics related to exclussive breastfeeding program, and informants from community.

3.1 Results of Qualitative Research

3.1.1Document Review Data

Prevalence of exclusive breastfeeding in Indonesia were up and down for the last three years. Secondary statistical data reported by Ministry of Health asserted that 29,5% (2016), 61,33% (2017), and 37,3% (2018) [19]. The data suggested that national government, supported by Provincial and District Health Offices and other relevant stakeholders, should develop integrated policies, programs and budgets to promote community empowerment to mainstreaming exclusive breastfeeding. Lessons learnt from this study was that mothers living with babies in Karanganyar can be the sample for national studies and piloting program. Family health education needs well-trained health cadres to reach more mothers, to provide exclusive breastfeeding mentors, and to intensify field visits to Posyandu covering both mothers living in rural and urban areas. Educating cadres is one of the proper solutions to improve the prevalence of exclusive breastfeeding. Different from national statistical data, for the last five years the current data of the prevalence of exclusive breastfeeding in Karanganyar district slightly increased 61,6% (2017), 61,1% (2016), 58,1% (2015), 50,1% (2014), 46,9% (2013) [20]. The prevalence of exclusive breastfeeding in Karanganyar had been successful program even now it is better than the national achievement. It is important to discuss further about factors and reasons for the practices of exclusive breastfeeding remain low in Indonesia, including: (i) marketing formula milks remains highly intensive, (ii) more female workers work in industries preventing them to provide exclusive breastfeeding to their babies, (iii) several health

care-givers do not have commitment to fulfill baby's rights, to enjoy exclusive breastfeeding, (iv) limited exclusive breastfeeding cadres and advisors, (v) poor education, socialization, advocacy, and breastfeeding campaign, and (vi) many hospitals do not yet commit to implement 10 steps toward successful breastfeeding. [19, 20]

3.1.2 In-dept Interview Findings

Fact-findings made available by the Village Head (Mr. S, 57) during in-dept interview with him will provided as follows: "Female cadres should always get education to inform reasons and benefits of exclusive breastfeeding. They should also share new skills to other female cadres and rural community members for different villages. Beside training, cadres need additional learning by doing skills, for example, Oxytocin massage. Cadres do not know yet in detailed about Oxytocin massage/treatment. If no cadres in the villages, mothers with their babies went to baby dukun, a traditional birth assistant and oxytocin massage. Training for exclusive breastfeeding depends on available funds. Cadres need training every three-month. Cadres received manual book on exclusive breastfeeding during training sessions. Center for Health Service, called Puskermas, provided services for older pregnant mothers prior to the younger pregnant groups. The training session for the pregnant mothers was sponsored by District Office of Health targeting 30 participants, acceptable amount of once training program. Mrs. AB (49) represents IRCE and provided several points "Cadres do not have yet enough ability to promote health knowledge and breastfeeding skills because most of them do not have breastfeeding training program. They do not have self-esteem. They have limited competency. Cadres were unable to promote health education to community due to lack of best practices and lessons learnt. Few cadres can teach a few health learning, including simple way for breastfeeding. In Kaliboto village, we have had 67 cadres, one cadre one dusun for every sub-village and spatial group. It would be ideal to have one cadre for every dusun. Puskesmas and Village Head can do cost-sharing for running education and training cadres. They should use part of the public village grants provided by central government to support the rural development, including campaign of exclusive breastfeeding movements. As the Rural PKK coordinator Mrs S (54) said that "I agreed and supported training program for exclusive breastfeeding cadre based on community needs assessment. After that, they will make significant contribution for the provision of exclusive breastfeeding and works well in every village. In fact, we found that many mothers remain unable to provide exclusive breastfeeding during the working hours.

After three months on working leaves the volume of exclusive breastfeeding might be getting less hence mothers tend to be not willing anymore to breastfeed their babies. It would be good for kids living with mothers who can stay home and or regularly giving exclusive breastfeeding to their babies. Working mothers have faced the real problems of breastfeeding. Currently, most young productive mothers were working outside the home. To reach the working places, many mothers have used a motorbike for traveling from home to different industries in urban fringe areas or in the center of cities. They leave earlier in the morning and getting home in the afternoon. Many companies operationally have three shifted working hours per day. Working mothers and their babies should adjust their exclusive breastfeeding accordingly. My babies have always had exclusive breastfeeding. They did not want to consume formula milks since the birthday in the hospital. I was very proud of doing it. I believe that if mothers do care about the best healthy growing babies and kids, either girls or boys, they shall provide exclusive breastfeeding at least six months. They can try simply to put breast milks in a bottle then freeze it in refrigerator. Then they can use it any time before and/or after working hours. In fact, now I see just very few mothers do exclusive breastfeeding. Rural midwifes have couched many mothers through non-formal training activities in Posyandu and/or PKK. They do it every month in every dusun, sub-village. I know that most mothers have already knew it. But they are reluctant to do it. Current social trends, younger mothers do not want to do it. To mainstreaming the practice

of exclusive breastfeeding, all cadres should socialize several key concepts – reasons, goals, objectives, and benefits of exclusive breastfeeding for both the mothers and the babies. Breastfeeding behaviour requires know-how the best way to breastfeeding, family commitments, and motivation, especially mothers. The challenging issue is again that more and more females with higher education tend to work professionally in public places. They prefer to make money. They have spent less time and labour for caring babies at home. They let baby sitter(s), called 'pembantu rumah tangga', to take care of their babies or kids and even other domestic businesses. Family structure rapidly changes now and then." Several health cadres said different things about issues related to breastfeeding: Up to now there is no exclusive breastfeeding available yet in my dusun. There should be 4-5 cadres in every Posyandu. All did not yet get training for exclusive breastfeeding socialization. Training for cadres is needed to update new knowledge couple with health promotion for young pregnant mothers. Exclusive breastfeeding training program would be good for larger members of the urban dan rural society. Actually, every Posyandu needs at least 4 well-trained cadres. A-6-hour training session would be enough on exclusive breastfeeding. We need modules and simpler manual on exclusive breastfeeding to train cadres. (Mrs. S, 48) We knew there was funds to run Posyandu once provided by government for every three months. Key social leaders have supported to allocate funds for health training and counselling. Educating health cadres for exclusive breastfeeding is to meet the priority needs of community. Training materials and kits should cover breastfeeding and oxytocin massages exercises. Training reached at least two cadres for each dusun. (Mrs Sar, 45 and Mrs Sri Win, 53)

"Exclusive Breastfeeding cadres were needed, but community sometimes do not believe the capacity of cadres who mostly graduated from lower level of schooling." (Mrs. N, 37) Rural midwife (Ms. AS, 37) asserted that Both quality and quantity of mothers caregiving exclusive breastfeeding are very low, eventhough I do not remember the real statistical data. Cadres would be potential for increasing the distribution and numbers of cadre participants. Cadre education and training are all relevant community needs to reach higher quality and numbers of mothers giving exclusive breastfeeding. Community and mothers should know how important contribution of cadres to ensure healthy kids for all. Training curriculum covers the following topics: Reasons and benefits of exclusive breastfeeding for mothers and kids, ten steps toward modern and success exclusive breastfeeding, breastfeeding technics, and oxyitocin massages, especially for new cadres. Well trained cadres will successfully educate community, including mothers as caregivers for exclusive breastfeeding. For mothers working in industries they asked for training that deliver knowledge and skills: exclusive breastfeeding for working mothers who will do breastfeeding when at home after work. In the long run, cadres training should improve cadre's competencies, increased cadre's performance mentoring social groups, teaching pregnant mothers, and improved healthiness of pregnant mothers and kids. She also said that 6 cadres are ideal for one Posyandu. She hopes that training will be enough for 6-9 hour a day. In her areas of service, she found that that they had already have a series of training modules for exclusive breastfeeding cadres. Thus, with health education and training based on community needs assessment cadres will have more significant contribution to expand access and to improve quality of exclusive breastfeeding practices and changing mind set of mothers and kids for caring the future quality of human social life.

3.1.3 Focused Group Discussion (FGD)

It was organized FGD to explore information and unified data taken from in-dept interviews and other data collection methods and resources. FGD involved 34 participants including Village Head, Head of Social Welfare, Head of Sub-Village, IRCE staff, PKK coordinator, Head of Posyandu, health cadres, and rural midwifes. Facts-findings demonstrated several points as follows Key-community leaders and midwifes have promoted exclusive breastfeeding through series of posyandu activities, but there were no well-trained exclusive breastfeeding cadres. We need to discuss clear ideas, wholistic concepts, and scope of exclusive

breastfeeding to learn by cadres. Every posyandu requires 5 cadres. Training shall provide thematic issues to improve mmotivation, self-efficacy, communication skills, and cash flows management to run posyandu activities using a 3-monthly village funds. Up to now there is no such special training program implemented for exclusive breastfeeding cadres. It is necessary that every sub-village will have 1-2 well trained cadres. So, rural community members welcome cadres to join one-day training program in the village recreation hall, called Balai desa. In summary, FGD and in-dept interview concluded that scope of the provision of exclusive breastfeeding remains low; there was no exclusive breastfeeding cadres yet for every sub-village; and at least three potential resources are available – Posyandu cadres, village public funds, community health service center called Puskesmas. Education and training for exclusive breastfeeding programs are relevant to the expected objectives of the exclusive breastfeeding program. Education and training materials should include multiple benefits of exclusive breastfeeding for both mothers and kids, ten steps toward successful exclusive breastfeeding, variety breastfeeding technics, proper oxytocin massages, and best practices and strategies for the provision of exclusive breastfeeding by working mothers. How many cadres are needed per Posyandu? It depends on the numbers of babies for every Village. In general, Posyandu needs 5-6 exclusive breastfeeding cadres. How long health training would be offered? It is about 7-9 hours a day.

Modules for training cadres are available and ready for use. After training session, most cadres are expected to have a beter performance when promoting health education – understanding outcome base learning theories, use best practices and lessons learnt, sharing personal experiences, individual coaching, group mentoring, and building achievement motivation, interesting claasroom speaking skills, team work, collaboration, and networking. It is social-demographically right that many young productive mothers prefer to work outside home rather than to provide exclusive breastfeeding. It is the most challenging issue. The growing trends of working mothers leave their kids at home for 8-10 hours a day. Babies are living with household assisstant called Asisten Rumah Tangga (ART). Both babies and kids who have working mothers did not get enough quantity (and even quality) of exclusive breastfeeding. I believe that further research programs are needed to explore the positive and negative impacts of both working mothers and lack of exclusive breastfeeding to social psychological development for the future kids and children. Supported by midwifes, key-resource persons, and nurses from Puskesmas, exclusive breastfeeding cadres should provide blended training: regular face-to-face meetings in Posyandu and PKK activities, sharing infography, and providing easier access to videography, and distribution of other phamplets. Many working mothers and cadres might enjoy a variety of social media for learning exclusive breastfeeding.

3.1.4 Emancipatory Observation

During training session, the research team observed participants to ensure the progress of psychomotor domain, including: breastfeeding technics, oxytocin massages, interpersonal communications, and group mentoring beneficiaries.

3.2 Quantitative Research Findings

3.2.1 Demographic Characteristics of Informants

In Karanganyar District, we found that all participants (34) joining training for the exclusive breastfeeding cadres were females. For Javanese people, it is socio-culturally acceptable and more welcome by mothers for joining to learn exclusive breastfeeding. Most training participants (67.7%) are aged 41-year-old and over indicating they have had personal experiences on breastfeeding practices. Combining the current knowledge of breastfeeding and Oxytocin massage skills support cadres for better services. Moreover, Cadre regeneration is moving on the right track in Karanganyar since the data show that 32% of training participants are under forty-year-old females with strong commitment and dedications for being cadres on

exclusive breastfeeding in local areas. Table 1.1 provided more detailed information regarding informants.

Table 1.1. Demographic Characteristics of Informants (n=34)

Demographic Characteristics	% (N)
Age group	
31-35	14.7 (5)
36-40	17.6 (6)
41-45	23.5 (8)
46-50	23.5 (8)
>50	20.6 (7)
Education	
Primary School	17.6 (6)
Junior Secondary School	47.1 (16)
Senior Secondary School	35.3 (12)
Employment	
Housewife	76.5 (26)
Farmer	2.9 (1)
Business	17.6 (6)
Paid labor	2.9 (1)
Experience (year)	
1-10	64.7 (22)
11-20	26.5 (9)
21-30	2.9 (1)
>30	5.9 (2)

Source: Primary data taken from 34 Informants

It was challenging issues for public health care Karanganyar District since 64.7% of the current total breastfeeding cadres only completed basic education, both primary and junior secondary school. To improve educational qualification, District Education Office on collaboration with Center for Community Learning Center, CLC, or Pusat Kegiatan Belajar Mengajar, PKBM, to offer Package C program (recognized Senior School Certificate) to breastfeeding cadres who need it. Most cadres training participants (76.5%) were married and housewives and 17.6% working for business. Most informants (64.7%) have less than 10-year experiences as the exclusive breastfeeding cadres meaning that they have performed double functions as mothers and cadres.

3.2.2 Impacts of empowering education on knowledge of exclusive breastfeeding program

Statistical test Wilcoxon was to examine the difference of participant's knowledge before and after training program for selected 34 cadres of exclusive breastfeeding. The statistical test results were provided in Table 2.

Table 2 Pre and Post Training Scores on Knowledge of Exclusive Breastfeeding

Group	N	Mean	Median	SD	Wilcoxon Z	p
Pre-Test Training	34	52.53	16.00	3.653	-3.53	0.001
Post-Test Training	34	56.35	18.00	1.515		

Source: Primary data taken from 34 informants

According to statistical test scores the value of p (0.001) < α (0.005) asserted that there was a significant difference between the score of exclusive breastfeeding before and after training program. The average score at the beginning of training session was 52.53 and then after training program being done the average score was 56.35. It increased 3.82. As the frontliners for the success of exclusive breastfeeding practices, the quantitative data and statistical results analysis have a lot of meanings for the improvement of exclusive breasfeeding and Oxcytocin message for every cadre. Asuming the effect of other factors were zero, the curent quantitative data and statistical pre-posttests scores have shown the scientific evidences leading our conclussion: community needs assessment base education model had siginificantly improved knowledge of exclusive breastfeeding among cadres serving mothers living with under six-month age babies in the District of Karanganyar Central Java Indonesia. It is important that we found several key-statements made by cadres and well-recorded in manuscripts are compatible with fact findings in quantitative data analysis in Karanganyar. One of the research implicatios is that for promoting health and community empowerment, any research not only for the sage of research but doing research for community empowerment. Beside empowering education model to improve cadre's knowledge for better performance services, this research finding also provided well defined scope, major curriculum contents, participatory learning methods, and involvement of volunteerily social organazation in the rural and urban areas villages.

4. Constraint

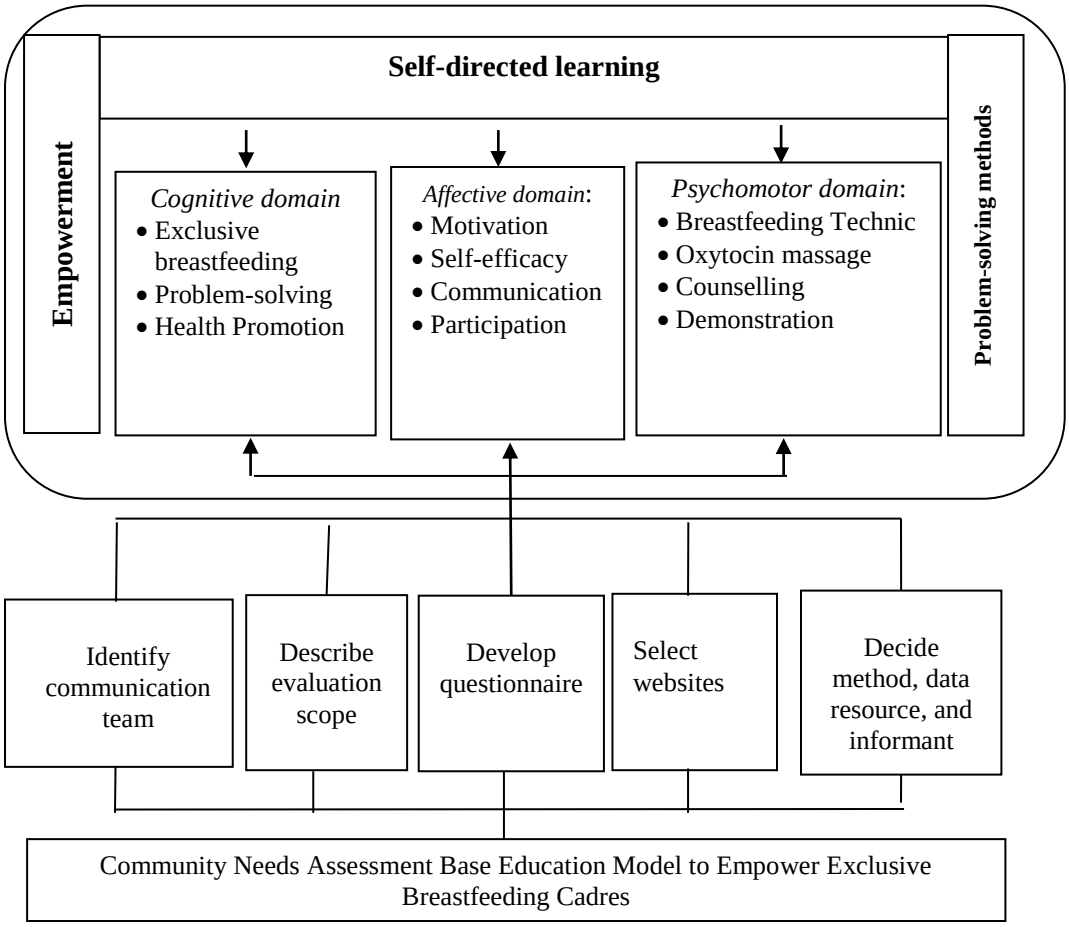
This research does not measure yet any change of the affective domains – motivation, self-efficacy, communication, and participation. We tried to review previous research findings relevant to these affective domains, but we found less data and fact-findings to compare. We do not have yet control group that show other less interventions happening for the same time effecting the result of the findings. Realizing these weaknesses, we have limited capacity to evaluate the impacts of education and empowerment program. With highly commitment to the quality of health services to reach human development indices, we recommend further research agenda to address these issues leading to more comprehensive scientific explanatory toward the impacts of training and exclusive breastfeeding behavior in society.

5. Conclusion

The design of community needs assessment base education model to empower exclusive breastfeeding cadres consists of several components: self-directed learning and best practices lessons learnt for doing better job (see Figure 1). Empowering education model consisted of

(i) Cognitive domain – human behaviour elaborates several aspects - intellectuality, knowledge, thinking skills, problem-solving, breastfeeding, and health promotion.
(ii) Affective domain – behaviour related feeling, talent, emotion, attitude, appreciation, self-adaptation, motivation, self-efficacy, communication, and participation;
(iii) Psychomotor domain – motoric skills: breastfeeding technics, oxytocin massage, counselling, and demonstration.
(iv) Methods of education and training - using empowerment approach, blended learning, problem-solveing, coaching, mentoring and field consultation.

Figure 1- CNA-Base Education Model for Exclusive Breastfeeding Cadres



Research findings in Haiti asserted that participants significantly increased their knowledge by comparing their scores before and after training program. The conclusion made from this research project was that participants did support education and training for exclusive breastfeeding cadres. To work as CHW, cadres of exclusive breastfeeding during the ongoing training participants described several challenging issues, including logistics, training materials, and funds in Haiti. Beside that they were not sure about the project sustainability due to sociocultural incompatibility. [21] The multiple roles of family and health cadres are to provide exclusive breastfeeding, to maintain motivation, positive perception, emotion, and attitudes among mothers to start, and to keep the provision of exclusive breastfeeding for babies and children. Indonesia, where more than two hundred and sixty-four million people and the fourth most populous country in the world, had learned about reasons and benefits on the success of exclusive breastfeeding programs from Haiti with eleven million population located next to Caribbean Islands and closed to Florida. The positive impacts of health education and training for exclusive breastfeeding cadres in Haiti have provided brand new ideas with proper training modification for Indonesia. Indonesia implemented new paradigms and community empowerment approaches, for mainstreaming social norms and values for health education and training. A family is counted as the most strategic social unit for exclusive breastfeeding socialization. The national government of Indonesia, GoI, had declared that exclusive breastfeeding become one of the national development projects. All cadres of exclusive breastfeeding were socially selected to coach and mentor to productive age mothers. Supported by media, cadres have done massive campaigns of 'a 6-months exclusive breastfeeding for all'. Cadres sometimes did home visitation and manage regular and non-formal mother gathering in PKK and/or Posyandu for every sub-village and/or social group. As community health education coach and mentor, cadres are available for mothers having less than six month old babies for emosional supports, empathy, positive feedsback, easy access to any help, time, allocation time and

spending labor and experience sharing. With these soci-psychological assistances to mothers living with babies, health educated cadres will have significant to create social supports for the future healthy generation. [22] Program for empowering mothers improved self-esteem and control since motivation and participation made from, by and for participants themselves to find the best solution for their growing kids. [23] Breastfeeding education increased 48% for the last six months after 34 cadres trained. Mothers have had more access to information and knowledges, more positive attitudes toward breastfeeding, perceived self-efficacy and women's positive emotions. [24] It is important that prenatal breastfeeding education had significant impacts on duration of breastfeeding among mothers living with healthy babies. More mother's post-partum joined prenatal breastfeeding education demonstrated that they have done breastfeeding on average 104 days (3 months 14 days). In contrast mothers who did not join training program as control group did breastfeeding for 43 days (1 month and 13 days) only. [25] Health trained exclusive breastfeeding cadres have done great job including teaching, coaching, and mentoring mothers living with babies under six-month ages to keeping exclusive breastfeeding. Moreover, health cadres are always available whenever any mother having difficulties for breastfeeding. [26]

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