

CHILD GROWTH DEVELOPMENT AND EDUCATION IN WEST NUSA TENGGARA PROVINCE

Sudirman¹, Wibowo L², Apriatni M², Muadz H³, Sayuti R³, Prado EL⁴, Shankar, AH⁵

¹Study Program of Mathematic Education, University of Qamarul Huda Badaruddin Bagu, West Nusa Tenggara Province, Indonesia. Contact: sudirman@uniqhba.ac.id

²Summit Institute Development, Mataram City, West Nusa Tenggara Province, Indonesia

³Mataram University, West Nusa Tenggara Province, Indonesia

⁴Dept of Nutr, UC Davis University, USA

⁵Dept of Nutr, Harvard School of Public Health, USA

Abstract

The Government of West Nusa Tenggara (GoWNT) Province, Indonesia has proposed a “Golden Generation Program” (GGP) to support optimal child development. The GGP is supported by Provincial Decree No 7 (Provincial Development Planning Agency, 2011) to “Improve and Protect the Health and Welfare of Women, Infants and Children”. We propose a GGP that builds upon the existing collaborative efforts of the government, university and non-governmental organizations (NGO), to create an integrated intervention to increase the thriving of young children by: Strengthening the existing Early Child Development Centers (ECDC) in each village with family centered approaches to increase caregiver capacities for health and early childhood development; Training and deploying developmental Community Development Worker (CDW) to coach and certify baby-friendly couples (BFC) for early childhood development; Deploying a mobile real-time data platform linking BFC, CDW, ECDC, Center for Early Child Development (CECD), Village health Post (VHP), and Primary Health Centers (PHC) to track infant growth and development and intervene if needed; Establishing a solid network that supports the CDW in carrying out their tasks on GGP. The network for sustainability plan of GGP includes a CDW Cooperative and link to any relevant institutes for ongoing support of ECD efforts. As a social business enterprise, the CDW Cooperative will gain revenue from insurance, goods and information provided to clients. With high variety of ethnicities and languages, efforts undertaken to design programs in Indonesia must be strongly based on local empirical evidences. A thorough formative research is then unexceptional for program success within the country. In the real situation, this kind of research is frequently oversimplified or even skipped as an essential element of the program development. Here, we presented the risks of program policy misconception in the absence of a formative research. Data were collected through in-depth interviews with various key informants; policy document reviews; direct field observations; and survey among 1,051 caregivers of children aged 0-4 yo. Within West Nusa Tenggara Province, East and Central Lombok Districts were selected as study sites. A thorough formative research is a must to create an evidence-based policy.

Background

In the face of rapid globalization, inventing an equitable competitiveness of human capital as the subject of development must be set as a priority in each and every country (World Bank, 2000; Andersen, 2001; Andersen and Pandya-Lorch, 2001). One way to measure the progress of such an effort is to use the Human Development Index (HDI) as a parameter, which remains widely variable between countries. Regardless of the country's progress on the HDI within the last 32 years (UNDP, 2013), based on this index, Indonesia was still at the position of 121 out of 187 countries and territories in 2013. But, this must be seen optimistically as a room for improvement to catch up given the future window of opportunity, such as the demographic bonus estimated at around 2020-2025 (National Population and Planning Body, 2011). Prior to that period, such valuable momentum should be pursued for its happening as early as possible because there are also many identified risks of losing it. Seeing as a vicious circle, one among those risks is the still low quality of human resource due to poor early childhood development effort.

If we look at the national development challenges and missions as listed in the National Medium-Term Development Plan¹ (Ministry of National Development Planning/National Development Planning Agency², 2010), the government commitment toward the effort

of optimizing the quality human resources was evidenced. But the real challenge is then laid on the transformation of such commitment into a well-designed master plan of strategy and activities to meet the need. This signifies the role of any relevant stakeholders, within and outside the government structures, to involve and collaborate with the government in developing such design. Similar problem was also encountered at the lower administrative levels, such as at the province and district levels. However, the decentralization of autonomy (Act no 12, 2008 on Local Governance) will make possible the application of bottom-up approach in which a trial could be done in a smaller scope (i.e. provincial level) and then scaled up to the national level once succeeded.

The Golden Generation Program (GGP) is the future national government program that will be carried out in Indonesia, a middle-income country and the fourth most populous in the world with about 270 million persons. This program is aimed on optimizing early child development, especially within the golden period "first 1,000 days" of life. To narrow the scope of area for this study, we will initially target West Nusa Tenggara (WNT) Province in Eastern Indonesia as the study site, particularly in Lombok Island. WNT has high poverty and poor development with mortality rates at 60 per 1,000 live births in 2010 and the highest stunting (42%) and illiteracy (19%) rates. Currently, 299/592 villages have at least one Early Child Development Center (ECDC), with an average of one ECDC per 4,300 persons

¹So-called *Rencana Pembangunan Jangka Menengah Nasional* or RPJMN

served. The ECDC aims to provide informal education for pre-school age children including playgroups, daycare and parenting education services. Unfortunately, the functionality and use of the ECDC remains suboptimal and it is isolated from other services including the Primary Health Care. The extensive experience of Summit Institute Development (SID) on carrying out community-based outreach in this island, which also focused on maternal and child wellbeing, has been the main reason of the selection. Those long-standing activities also lend an already close collaboration with the local government of WNT as the most essential management back-up for the study. Additionally, the concentrated population of WNT in Lombok (70% of the total population, based on the data from Provincial Development Planning Agency, 2014) provides another strong reason why the study will be conducted there.

Considering where to start, we choose the early childhood period (0 to 4 years old) as the target of our intervention. Currently, only government health and nutrition programs are intensively addressing infants and toddlers as the target beneficiaries. Meanwhile, the educational programs still narrowly appreciate literacy and professionalism, severely neglecting the critical part on human character building process. This becomes the reason why most of those existing programs are merely targeting the schooling age groups (> 4 years old) through formal education and left lacunae in the informal program for the younger one. This must be taken as a major program handicapped considering that such age group is not only the most vulnerable

one, but also the most responsive to an intervention aimed on shaping qualified human characters. Given an appropriate intervention, we assumed that the effect on them would be sustainable as the strong foundation for developing human capital. To fill in the gap, a comprehensive preliminary study is required, better done in a smaller scope due to the complexity of the issue. Such study is expected to at least producing a master plan, which could be used as the blueprint for the future national program.

Objectives

With high variety of ethnicities and languages, efforts undertaken to design programs in Indonesia must be strongly based on local empirical evidences. A thorough formative research is then unexceptional for program success within the country. In the real situation, this kind of research is frequently oversimplified or even skipped as an essential element of the program development. Here, we presented the risks of program policy misconception in the absence of a formative research.

Materials and Methods

Data were collected through in-depth interviews with various key informants; policy document reviews; direct field observations; and survey among 1,051 caregivers of children aged 0-4 yo. Within West Nusa Tenggara Province, East and Central Lombok Districts were selected as study sites.

Results and Findings

Given the concern on their child growth and development (CGD), a prevailing lay concept on its support from

those surrounding a child was identified in this formative research (see **Figure 1**). There were three direct determinants of support for CGD, segregated within and outside the household. A unique pattern of caretaking adopted by parents or caregivers determined what were considered important CGD indicators to observe. However, infused by the prevailing social values/norms, some indicators were unquestionably accepted as “important to

observe” and somehow also determined the pattern of caretaking at home. Outside the household, CGD may determine by child involvement in the activities at ECDC. There were some variants of ECDC available at the grass-root level, such as playgroup which held more on regular basis (i.e. daily) or nutrition/health program for children U-5 delivered at the integrated health post (so-called *Posyandu* or *Pos Pelayanan Terpadu*) every month.

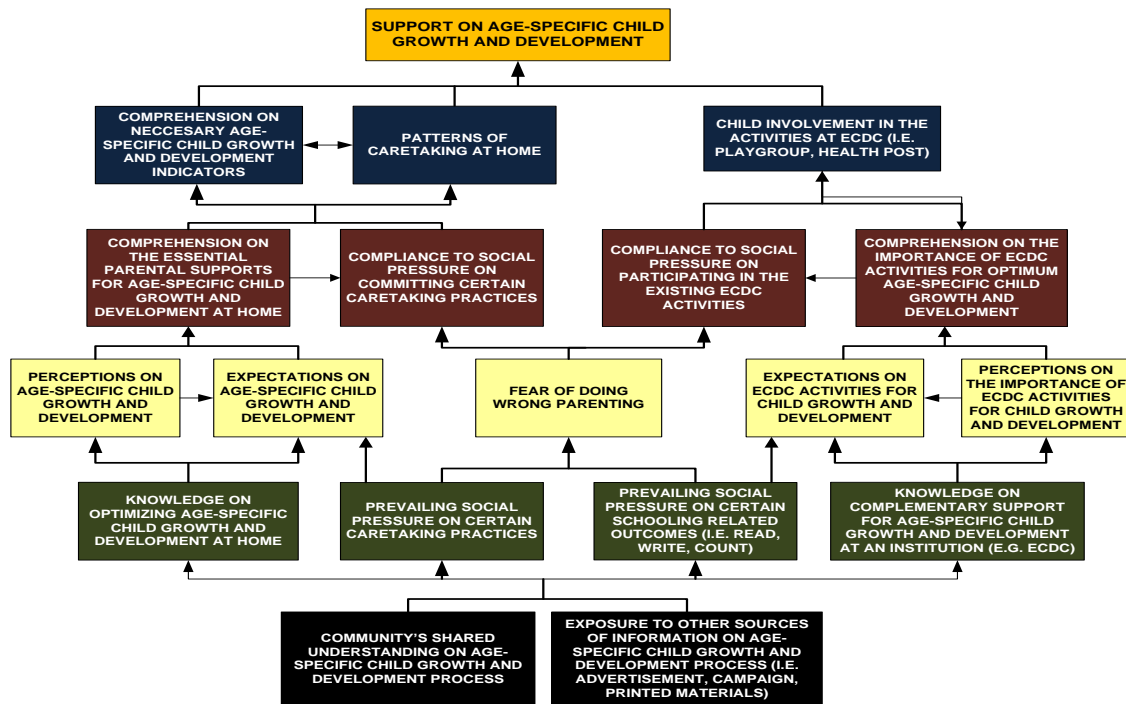


Figure 1. Lay concept of child growth

Within the household, the pattern of caretaking adopted by caregivers was determined essentially by two factors, the caregivers’s comprehension on parental support for CGD and their compliance to any related social values/norms to child caretaking. The overall comprehension on child caretaking at home was shaped by the

caregiver’s perceptions and expectations on CGD. For example, when a caregiver perceived that 5 months old baby should be able to sit (perception), she/he will expect that happening (expectation) and then expressed it in an action to assist or even a tendency to force the child to learn sitting (pattern of caretaking). Provided the amount

of correct knowledge on support to CGD, what perceived and expected by a caregiver could deviate from or conform to a proper caretaking pattern. In the case of minimal knowledge on proper parenting, the social values/norms will kick in as a significant pressure and dominantly affect the caretaking practice. Due to communal characteristic of the studied population, the effect of social pressure somehow could even surpass that of parental knowledge on caregiving. In the course of the study, some shared understandings on parenting were identified to be internalized and practiced by many caregivers. The fear of doing wrong parenting was also frequently mentioned by the respondents during the interviews. When correct knowledge on parenting was lacking, again, the compliance to the prevailing social values/norms became dominant as the utter guidance on parenting. On the other hand, regardless of the information quality from other sources (i.e. advertisement, campaign, or printed materials), it may or may not be internalized by some caregivers. Given high frequency and coverage of the exposure, acceptance of such information by the majority of caregivers as their common “correct” knowledge became highly probable.

With respect to the involvement in the available ECDC activities, the similar process of adoption or rejection prevailed. For example, when a child attended playgroup activity at an ECDC, the expectation that the child should be able to read-write-count (so-called *calistung* or *baca-tulis-hitung*) was highly prevalent. Such expectation rooted on the common

perception that attending the ECDC meant schooling which was also seen equal to learning read-write-count. The fact that the ability to read-write-count was actually one of the main prerequisites for a child entering an elementary school added pressure to the existing educational system to accommodate its learning process. In this case, the importance of learning read-write-count was then overly emphasized as a “must do” element even at playgroup.

Although quite numbers of children came to the nearby ECDC for playing there, but only few have been formally registered by their caregivers. Both caregivers and ECDC tutors; some have shared similar perception on the right timing for registering a child to a playgroup. When children was considered too young to learn read-write-count or too dependent (demand special attention or caring), they would not be registered or accepted for registration. The fact that singing and/or playing were undervalued as part of the child learning processes would then further delayed its registration to playgroup even when they almost regularly came to the center. The absence of a standardized curriculum also became the main reason why some ECDC tutors have misunderstood the purposes and targeted beneficiaries of a playgroup. Depend on the degree of understandings they had, it formed the overall comprehension of caregivers/ECDC tutors on the importance of playgroup activities for CGD.

Similar processes of thinking have underlain the decision of caregivers to bring their child to *Posyandu*, especially for

growth monitoring activity. Without knowing the importance of monitoring their child growth, the program was valued as a mere monthly weighing activity (perception). This affected the compliance on attending the *Posyandu* activities which was mostly driven by mere solidarity (a form of social value) or compliance to other programs such as immunization, supplementation (high dose vitamin A), or medication.

In brief, these findings clearly emphasized that tackling the detrimental effects of social pressure is as equally important as improving knowledge of the community members on CGD and its required supports.

Conclusion

A thorough formative research is a must to create an evidence-based policy. Within the household, the pattern of caretaking adopted by caregivers was determined essentially by two factors, the caregivers's comprehension on parental support for CGD and their compliance to any related social values/norms to child caretaking. The overall comprehension on child caretaking at home was shaped by the caregiver's perceptions and expectations on CGD.

The expectation that the child should be able to read-write-count (so-called *calistung* or *baca-tulis-hitung*) was highly prevalent. Such expectation rooted on the common perception that attending the ECDC meant schooling which was also seen equal to learning read-write-count. The fact that the ability to read-write-count was actually one of the main prerequisites for a child entering an elementary school added

pressure to the existing educational system to accommodate its learning process.

References

1. Aboud FE, Singla DR, Nahil MI, Borisova I. Effectiveness of a parenting program in Bangladesh to address early childhood health, growth and development. *Social Science and Medicine*. 2013;97:250-58.
2. Aboud F, Singla D. Parenting program manual: PLAN Uganda. 2013.
3. Armecin G, Behrman JR, Duazo P, Ghuman S, Gultiano S, King EM, Lee N. Early childhood development through an integrated program: evidence from the Philippines. World Bank Policy Research Working Paper. 2006;3922.
4. Bryant DM, Ramey CT, Sparling JJ, Wasik BH. The Carolina approach to responsive education: a model for day care. *Topics in Early Childhood Special Education*. 1987;7(1):48-60.
5. Bryce J, el Arifeen S, Pariyo G, Lanata C, Gwatkin D, Habicht JP. Reducing child mortality: can public health deliver? *Lancet*. 2003;362:159-64.
6. Eickmann SH, Lima ACV, Guerra MQ, Lima MC, Lira PIC, Huttly SRA, Ashworth A. Improved cognitive and motor development in a community-based intervention of psychosocial stimulation in northeast Brazil. *Developmental Medicine & Child Neurology*. 2003;45:536-41.

7. Fernandez-Rao S, Hurley KM, Nair KM, Balakrishna N, Radhakrishna KV, Ravinder P, Tilton N, Harding KB, Reinhart GA, Black MM. Integrating nutrition and early child-development interventions among infants and preschoolers in rural India. *Annals of The New York Academy of Sciences*. 2013;1-14.
8. Grantham-McGregor S, Schofield W, Powell C. Development of severely malnourished children who received psychosocial stimulation: six-year follow-up. *Pediatrics*. 1987;79:247-54.
9. Grantham-McGregor SM, Powell CA, Walker SP, Himes JH. Nutritional supplementation, psychosocial stimulation, and mental development of stunted children: the Jamaican study. *Lancet*. 1991;338:1-5.
10. Government of Indonesia. Village constitution no 6, year 2014.
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&sqi=2&ved=0CB0QFjAA&url=http%3A%2F%2Fikbh.uny.ac.id%2Fsystem%2Ffiles_force%2FUU_NO_6_2014.PDF%3Fdownload%3D1&ei=cFjMVKb9JYeT8QWOHlLgCg&usg=AFQjCNEudcaVIY8duiuqoz6OsJRVT51N1w&bvm=bv.85076809,d.dGc
11. Indonesian Health Ministry. Early stimulation, detection and intervention of child growth development. 2013.
12. Jin X, Sun Y, Jiang F, Ma J, Morgan C, Shen X. "Care for development" intervention in rural china: a prospective follow-up study. *J DevBehavPediater*. 2007;28:213-18