(by MS Word data)

Form7

Grant No.	17－054

Research Report

Name :Thida Win

Organization (at the start of the grant)**: Department of Public Health and Occupational Medicine, Graduate School of Medicine, Mie University**

Title of Research: Social capital and childhood undernutrition in Myanmar: A household based cross-sectional study

Purpose of Research:

Myanmar is one of the least developing countries and is experiencing the challenges of diverse issues. Across a range of issues and problems, child undernutrition arose to meet improvement in the health of people addressing huge health gap and critical social agenda. Regionally, Myanmar is one of the highest burdens of child undernutrition among South East Asia (SEA). Meanwhile estimated 84% of global burden of underweight among children of under five years old age (U_5) were in Africa and SEA which was linked to 45% of global child death. Therefore to reduce malnutrition and ensure early childhood development is major concern of health policies. Child nutrition and development has affected by familial, socioeconomic and political progress. Explicitly the cultural and social life of family members and that of community is essential to attain adequate nutrition and child health development. In addition multi-facets nature of inadequate nutrition makes necessarily to study it from societal perspective.

Regarding that view, social capital: "resources composed of or derived from trust, and/or norms (especially reciprocity), and/or networks, which facilitate collective actions" is crucial for promotion of child health and development which in turn allow to improve population health. Social capital is positively related to child health and welfare through increasing trust among members, promoting social support and participation, and increasing social networks in the community as well as in the family. In addition social capital is complementary to economic and human capital particularly in disadvantaged communities or low income countries, so that it is likely to be beneficial for child nutrition. Particularly social capital might be fruitful for the society like Myanmar which practices extended family pattern and the society that intertwines extensively among families, relatives, neighbors and communities. Moreover in this newly-reforming time of Myanmar, social capital that enhances the lives of people, integrates society and helps consolidate a fragile transition is a powerful timely opportunity for childhood nutrition and development.

In practice, the parental social capital regarding child undernutrition can be built along with ongoing activities by strengthening the social capital in communities. Multi-sectoral approach considering social capital would become effective than single component interventions for nutrition promotion in poor countries. Therefore this study would fulfill the needs to development and productivity of the society as a baseline to benchmark the social capital in relation to undernutrition in the poor country.

Content/Methodology of Research: (800 words)

This research was a three-phased study comprising of the qualitative research of social capital in Myanmar, the cognitive validation of World Bank social capital core questionnaire (SC-IQ) and finally the household based cross-sectional study for the relationship between parental social capital and child undernutrition. Ethical approval was taken from Myanmar Ethical Review Committee (ERC-008517) and Mie University Institutional Review Board (U2018-011). Both verbal and written informed consents were taken from the participants of all phases of the study. The first-phased study was the

qualitative, focus group discussions which were carried out in urban and rural area of three main regions of Myanmar namely hilly, plane and delta regions during December 2017 and January 2018 to explore the nature and extent of social capital in Myanmar communities. The study included 12 groups of discussions in which each group comprising of 6-12 community leaders or community members who were 18 years or above (Figure 1). The transcribed notes were analyzed by thematic approach based on preconceived six dimensions of social capital using the Atlas ti 8software.

Figure 1 Focus Group Discussions in Myanmar townships

For second phase, the World Bank social capital core questionnaire (SC-IQ) was translated to local language by professional translators and was adapted to local setting by forward-backward translating method. Followed by cognitive validation of SC-IQ was carried out by cognitive interviewing to the 30 participants in three townships of Myanmar which had similar characteristics of the final household-based study during April 2018 - May 2018 (Figure 2).

Figure 2 Cognitive Interviews with the participants from Myanmar townships

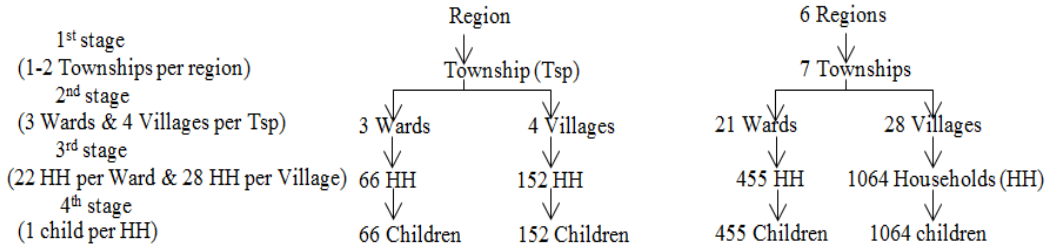
After the SC-IQ questionnaire was revised and cognitively validated, a pilot study of social capital and child nutrition was done in one township which also had similar characteristics of the final household based study wherein total 150 fathers and their 6-59 months old biological children were

randomly recruited to participate in the study during July 2018 (Figure 3). After cleaning of the data, data entry was done using Excel 2016 and the data was analyzed using the SAS software 9.4.

Figure 3 Training the interviewers, pilot data collection and supervision of pilot data collections

Starting from August 2018, data collection of the final household-based cross-sectional study was continuing and the process was planned to finish at the end of October 2018 or the early November 2018. Children of age between 6-59 months in Myanmar were the target population. The sample size of 1519 households having at least one 6-59 months old child who currently lives with his/her biological father under same household was chosen using United Nations' recommended formula for households' survey in developing countries. Stratified multi-staged cluster design was applied. Study area were in 6 (nearly 65% of total U5 population) out of 15 states/regions, reflecting each 2 regions from each high, medium and low underweight prevalence of U5 children in Myanmar (Figure 4).

In the first stage, each region was stratified by townships and total 7 townships were allocated in proportion to the size of different states/regions by proportionate stratified sampling.



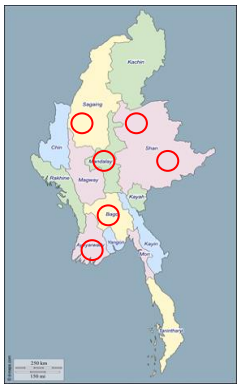


Figure 4 Study areas for quantitative data collection

In the second stage, 3 wards (urban area) and 4 villages (rural area) were chosen from each township, using the probability proportional to size method, so there were 21 wards and 28 villages. In the third stage, 22 households were selected randomly from each ward, while 38 households were selected randomly from each village so that 455 households from the wards and 1064 households from villages.

Figure 5 Training the interviewers, and supervision of data collections for final quantitative study

Information regarding the location of households was obtained from Township Administration Offices and Township Health Departments. In the fourth stage, one child was selected randomly from each household comprising 455 children from wards (urban area) and 1064 children from villages (rural area) pertaining to total 1519 children. In stage three and four, the selection was done in line with current 30% urban- 70% rural population distribution of Myanmar. Informed consents were obtained by verbally as well as by written documents from biological fathers of the children. Biological fathers were interviewed face to face by using structured questionnaires in local language. The anthropometric indicators (weight and height) of children were measured by standardized weighing machines and length boards. Child undernutrition was defined according to WHO child growth standard 2006. If there would be more than one child of that age in the same household, only one child was selected randomly. Interviewers were intensively trained through workshops and all the data collections were supervised by principal investigator.

Conclusion/Observation (400 words)

The findings from the qualitative study of social capital in Myanmar communities pointed out that the high connections were prevalence among kin, friends and neighbors of both rural and urban communities indicating high bonding social capital. Higher connections were found among different groups (bridging social capital) in urban compared to rural communities. On the other hand very few connections to higher authorities or personnel (linking social capital) were in urban while lack of that in rural communities. Formal social organizations existed in urban although local informal social organizations were dominant in rural communities. In both communities, social supports by the groups were in the form of charity or friendship-based particularly providing to poor people enhanced the local community wellbeing and development. Thick trust among relatives, neighbors were very dense enabling them to access to the health, financial, physical and social resources facilitating their wellbeing. Thin trust developed from community groups contributed to further cooperation among community members.

Traditional religious, wedding and funeral ceremonies were locus of generating the collective actions in both rural and urban communities. Local leaders and elders were the dominant facilitators for initiating the cooperation in order to achieve community wellbeing. Both rural and urban communities were said to be cohesive with the few social disharmony which were solved by local traditional custom, the respect from generation to generation, deferential problem solver role of local leaders and the kin relationships. The information regarding government actions and market news were mainly gained from friends, relatives, neighbors, local government leaders and local leaders in both communities. The communications were in the forms of in-person contact, phones or loud speakers. In urban communities the communications were replaced by internet social media although the local traditional informant system was still practicing in local communities. Both rural and urban communities did not have loud voices for their rights and they felt fewer satisfactions upon government actions because of government mismanagement, less decentralization and having no role of community members in decision making and planning for their communal developmental projects and activities.

The study indicated that the strong bonding social capital, the reliable social supports, and the collective and cohesive nature of the local community are likely beneficial to the wellbeing and development of community members in Myanmar.

For cognitive validation study, the SC-IQ questionnaire was validated from the verbatim based on the Toruangeau four phases of cognitive process. It was found out that the most prevalence issue in the questionnaire was comprehension dimension which was followed by retrieval, processing, response and inappropriate dimensions respectively.

After revision of the SC-IQ questionnaire, the pilot study was conducted in one township and the results were as the followings. The different aspects of the social capital of fathers were associated with child nutrition differently. The fathers who had higher in-person social supports or higher social cohesion were associated with better acute nutritional status of the children while fathers having higher social support in advice or information or having higher empowerment were associated with

poor acute nutritional status of the children. Similar patterns were also seen in the association between the relationship between father's social capital and chronic nutritional status of the child except no association was found in the in-person social supports of father and chronic nutritional status of the child. Although the pilot results are early to reach the conclusion, the pilot study was useful for final data collection in term of time, finance and knowledge. As the final cross-sectional household based study is undergoing recently in Myanmar townships, further informative results are expected to have better conclusions after accomplishing of it.

Finally I would like to show my sincere and heartfelt gratitude to the financial support of Konotsuke Matsushita Memorial Foundation which not only was beneficial for my study as part of my doctoral thesis but contributed to add the scientific knowledge into the field of child nutrition and social epidemiology.