

Module Development of Psychosocial Stimulation Manujai for Parenting of Stunting Children in West Sumatra

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Abstract. The first two years of human life is sensitive to have adequate nutrition. Naturally, nutrition itself cannot function optimally for physical growth and brain development without stimulation. In this study, nutrition is strongly related to psychosocial stimulation. This research aims to develop a module of psychosocial stimulation entitled Manujai which is based on the local culture of Minangkabau. Method: The research method used was product-oriented Research and Development (R&D) by Rowntree (1994). The research was conducted from May until July 2021 in two sub-districts in Padang Panjang, West Sumatra, Indonesia. Several instruments, such as a checklist, questionnaire items, Focus Group on Discussion (FGD), and Interaction Group on Discussion (IGD) were used. The technique of data analysis was quantitative and qualitative analysis which began with planning module development, writing, validation, evaluation, and module revision. The module was used as a guideline for cadres in the parenting class, especially to guide parents/caregivers on how to do Manujai to the stunting children under five years old. Result: In the research development process, the activity was to compose a book of outline material in the form of a printed module of psychosocial stimulation entitled Manujai. Based on the process of module development, it was found that the average answers given by the cadres included the rating of 4 (good) and 5 (very good). The module is used as the guideline for cadres of BKB (Bina Keluarga Balita)/PAUD/Posyandu who function as facilitators in the parenting process for parents/caregivers of stunting children. Based on the module, the cadres are expected to demonstrate to the parents/caregivers how to do Manujai to the stunting children. The way how to do Manujai includes; 1) showing the parents/caregivers the way to introduce vocabularies in the form of speaking pleasantly, communicatively, persuasively, while always appreciating them; 2) to show the parents/caregivers how to select pictures of the children's interest; 3) to motivate the children to sing Minangkabau songs together or personally in which the words or phrases reflecting religious and moral teaching; 4) to read poems or story-telling which reflect religious and moral teaching to the children. Conclusion: All the activities in this module increase the physical growth and brain development of stunting children under five years old. This study attempts to reconsider the culture of Minangkabau in the form of Manujai for the parenting process as the baseline of early education in Minangkabau society

Keywords: Manujai, module, parenting, stunting, Minangkabau

1 Introduction

The stunting children belong to the nutritionally vulnerable groups. The things that need to be considered at their age are their physical growth and brain development. Growth has an impact on physical and developmental aspects related to the maturation of organs individual functions. Optimal growth and development depend on one's biological potential. The achievement level of biological potential is the result of the interaction of various interrelated factors, namely genetics, environment, psychosocial, and behavior (Soetjningsih, 2013). The age of under five years is the most critical period to determine human resources. It is because, in this period, the process of the children's physical growth and brain development run very quickly. For this reason, various aspects are needed, one of which is psychosocial stimulation to optimize the children's physical growth and brain development.

The BKB program is one of the forms of government services. It is a part of the Family Planning program which aims to increase the knowledge and skills of parents and other family members in fostering children's physical growth and brain development through physical, motoric, intelligent, and emotional stimulation. The BKB program is carried out with the role of BKB cadres. They are community members who work voluntarily to foster and provide counseling to the parents about children's physical growth and brain development.

One of the aspects in Minangkabau culture which is practiced as psychosocial stimulation is Manjujai. It can be said that Manjujai is a pattern of stimulating children that have long been known and carried out by all generations. Besides, Manjujai is specifically used by mothers in Minangkabau to convey good values to their children, to persuade them to talk, then stimulate them through the desired expectations (Gusnawilis, 2019). Manjujai activities are commonly used by the Minangkabau community to put children to sleep and to persuade them to stop crying or being sad. Besides, most of the mothers use Manjujai when accompanying their children to play because this can improve the children's motoric skills. Overall, Manjujai activity can improve the aspects of children's growth and development (Dahrizal, 2018).

Based on the above statement, it can be said that Manjujai, in addition to being able to shape the children's character, can improve various aspects of children's physical, motoric, intelligence, psychosocial, and emotional growth, and development through interesting games, happy songs, pleasant gestures, and speaking a meaningful word. This happens to the children who are given Manjujai activities by their nuclear and extended family (parents/caregivers/close relatives) from whom they get emotional closeness. Because of such a parenting process, the children always look cheerful and have a better appetite. This improvement can be seen from the children's optimal growth and development of their weight and height.

The research of the intervention study conducted in Tanah Datar in 2015 showed that the administration of the Manjujai intervention combined with the provision of nutritional feeding or Manjujai has a significant effect on improving the nutritional status of children. The results showed a decrease in the proportion of underweight children (Z-Score BB/PB <-2 SD) by 14.5% at the end of the intervention compared to the control group, indicating an increase in the proportion of underweight children by 1.4%. Almost the same situation as the proportion of children with nutritional status, the combination of interventions also showed a decrease in the proportion of undernourished children (Z-Score BB/U <-2 SD) by 11.3% at the end of the intervention.

So, this study found out that the normal children who were given Manjujai had better cognitive, language, and motoric intelligence than those who were not (Helmizar, 2015).

Another fact shows that the result of the study about the implementation of the book of Manujai conducted in Pasaman in 2021 found out that the children's social, emotional, cognitive, motoric, and linguistic abilities tended to get improved while attempting to reconsidering the culture of Manujai in parenting process in Minangkabau society (Helmizar et al., 2021).

Accordingly, this study aims to develop a psychosocial stimulation in a developed module entitled Manujai. The purpose of this module is to optimize physical growth and brain development, especially of stunting children under five years old. The module is used by BKB/PAUD/Posyandu cadres and parents/caregivers in parenting activities to provide psychosocial stimulation to stunting children.

2 Method

The research method used is product-oriented research and development (R&D) introduced by Rowntree (1994). It is hoped that the product is in the form of a printed learning module entitled Manujai. The research was conducted from May until July 2021, and it was done in five stages: planning, writing, validation, evaluation, and revision in the form of a module. It was carried out in two sub-districts in Padang Panjang, West Sumatra, Indonesia. Several instruments, such as a checklist, questionnaire items, Focus Group on Discussion (FGD), and Interaction Group on Discussion (IGD) were used. The purposively selected informants were cadres BKB/PAUD/Posyandu who carried out parenting classes for parents or caregivers of stunting children.

The technique of data analysis was quantitative and qualitative analysis which began with planning module development, writing, validation, evaluation, and module revision. In order to get validity and reliability of the data, module, and interpretation, a psychology was invited to prove. The stakeholder at the Department of Health in Padang Panjang as module users also got involved in the checking process of the validation. Therefore, the learning outcome of the module was based on the validation from the stakeholders, who declared that the module was good and feasible to be implemented in the field by cadres, parents, or caregivers of the stunting children. The guideline module strongly supports the program of the parenting process, namely, to optimize the physical growth and brain development of stunting children.

3 Results and Discussion

The stage of the module development started from the planning. At the initial stage, an outline of the material was composed in the form of a printed module of psychosocial stimulation entitled Manujai. The module of Manujai was expected to optimize the children's physical growth and brain development. The module was used as the guidelines for the cadres of BKB/PAUD/Posyandu in the field.

At this stage, a brainstorming or discussion was also be conducted between the researchers and the stakeholders of the Department of Health in Padang Panjang District to share perceptions and next activities. In addition, information related to stunting children and the intervention program conducted in the Center of Nutrition or BKB/PAUD/Posyandu was derived from the cadres in Padang Panjang, there who had the following characteristics, shown in table 1.

Table 1. Cadres Characteristics

| [1] | Characteristics | [2] | f | [3] | % |
|------|----------------------------|------|---|------|------|
| [4] | Age (years old) | [5] | | [6] | |
| [7] | 30-40 | [8] | 5 | [9] | 41,6 |
| [10] | 41-50 | [11] | 7 | [12] | 58,4 |
| [13] | Duration as cadres (years) | [14] | | [15] | |
| [16] | 1-5 | [17] | 9 | [18] | 75 |
| [19] | 6-10 | [20] | 3 | [21] | 25 |

The number of cadres interviewed was 12 women, with 75% of them had been cadres for 1-5 years. The cadres interviewed were aged 30-50 years old. During the period of the interview, the cadres' experience in the field about the form of psychosocial parenting in Minangkabau, namely Manjulai was also explored. So, based on the interview, it was discovered that the cadres really need guidelines related to Manjulai, including the specific ways to implement Manjulai. So, the module is expected to contain technical guidelines for cadres to provide psychosocial stimulation through songs, pleasant gestures, speaking the meaningful word, interesting games, and stories in accordance with Minangkabau culture (see also, Helmizar, Sawirman, & Rahmy, 2020).

At the writing stage, the materials of the module were developed by the researchers and divided according to the outline. The results of the discussions were agreed upon at the initial stage. The formulations previously discussed by the researcher and stakeholder were redeveloped into a draft of the printed module of psychosocial stimulation Manjulai.

At the stage of validation, the stakeholder at the Department of Health in Padang Panjang as module users got involved in checking the process of validation. In order to get the validity and reliability of the data, a psychologist was invited to prove it. Therefore, the learning outcome of the module is based on the validation of the stakeholders who declared the module was good and feasible to implement in the field by cadres, parents or caregiver.

At the evaluation stage, the module was carried out in Padang Panjang District in two of the BKB/PAUD/ Posyandu, in which there were twelve (12) active cadres. The trial stage of this module resulted from the completion of the module, which was then printed and implemented by cadres in the field. The result of the evaluation can be seen in the figure below. The scale used is a Likert scale with the rating of 1 = Very Poor, 2 = Less, 3 = Enough, 4 = Good and 5 = Very Good.

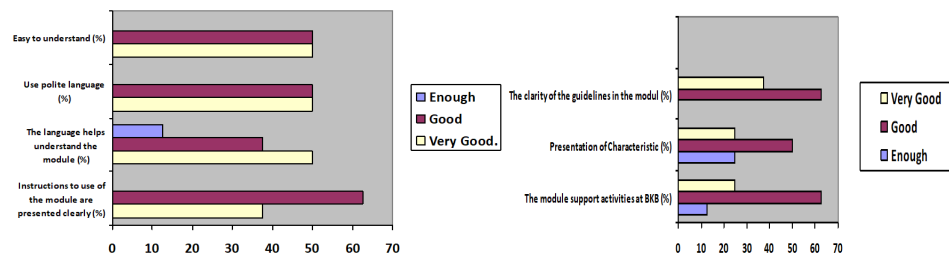


Fig 1. Assessment of the Eligibility of the Language Aspect and Assessment of the Feasibility of the Presentation Aspect

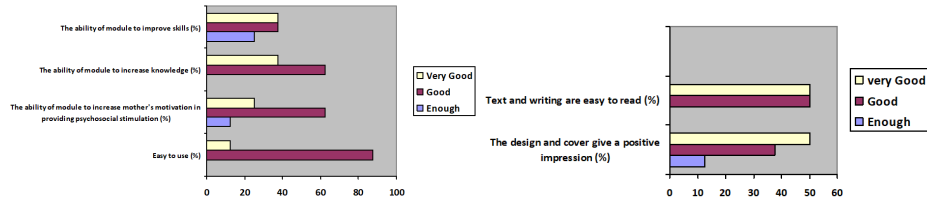


Fig 2. Appropriate Assessment of Media Effects and Overall View of Assessment Aspects

The above Figures (Figure 1 – 4) show the ratings of the way the cadres implement the materials of the module. Figure 1 shows that the language aspect of the module has four components. The average answer to each question is a rating of 4 (good). Likewise, in Figure 2, which is related to the feasible aspect of presentation on the module, the cadres' answers is the rating of 4 (good). Similar to Figure 3, the cadres in the field used the appropriate assessment of media. The average cadres' answer is "good". While in Figure 4, regarding the overall view of the module aspects, all the cadres' answered with a rating of 5 (very good). At the stage of revision, the research team, together with a team of media experts, and linguists completed the draft writing of the module of Manjujai.

According Musdalifah's study (2020) founded that the development of a draft, is carried out by analyzing the product that will be used developed by formulating the objectives of the module. Likewise, with this study, the module's purpose is to provide knowledge for mothers of children about psychosocial stimulation in a Manjujai method. The next stage is preparing and compiling the material. Next, compile instruments or validation tools and finally carry out evaluations. The validation of the expert team includes aspects of content feasibility, presentation feasibility aspects, language feasibility aspects, and contextual feasibility aspects.

In Musdalifah's research (2020), an assessment of 3.57 was obtained, which means very good. Another study, Isnar (2019), evaluated the module covering the title's suitability with the content of the material. There are four answer choices, namely very appropriate, appropriate, less appropriate, and not appropriate. The results of the research show that the content and discussion of the module are appropriate. This is the same as the researchers' research, with the average assessment of health cadres being good. Graphics of the assessment results can be seen in Figures 1-4.

In the module development process, the activity was to compose a module of outline material. The printed module of the psychosocial stimulation entitled Manjujai was used as the guideline by the cadres of BKB/PAUD/Posyandu who functioned as facilitators in the parenting process. Based on the module, the cadres were expected to demonstrate the way how to do Manjujai to the stunting children, which includes; 1) introducing vocabularies in the form of speaking pleasantly, communicatively, persuasively, while always appreciating them; 2) showing them pictures of their interest to let them know things, plants, and creatures in their environment; 3) motivating them to sing Minangkabau songs together or personally in which the words or the phrases reflect religious and moral teaching. Often, the songs accompany about forty games played by children under the control of parents or caregivers; 4) reading poems or storytelling which reflect religious and moral teaching.

Afterward, the research team wrote the module draft and invited experts following the draft completion. Then, the modular test was done for the BKB's active cadres in Padang Panjang. Finally, after the completion and improvement of the module were printed in the

form of books, then given to the National Population and Family Planning Board of West Sumatra Province to distribute to both trained cadres and stakeholders.

There are some research which are strongly related to this study. The study which was conducted by Walker et al. (2006) focussed on early care for children's growth and development based on psychosocial stimulation. The result of the study showed that by implementing psychosocial stimulation, there was an improvement in the cognitive abilities of stunting children and their academic abilities in the next period of life. Children who are stunting, if given maximized child feeding care in the first thousand days of life period and early care of physical growth and brain development through psychosocial stimulation interventions, there will be an impact on the quality of health, including gross and fine motoric development (Walker et al., 2006). Further testing of this module will be carried out on mothers of children. It is hoped that it can provide mother's knowledge about psychosocial stimulation in the Manjujai activities to optimize the development of stunting children.

The result of the research conducted by Rosiyannah (2021) produced a manual for sensory stimulation for children aged 4 - 6 based on seven senses play activities intended for early childhood educators. The provision of sensory stimulation can not only be carried out by parents and those closest to the children. However, it can be carried out by various circles of society, including teachers in early childhood education units. One of the bases in developing this manual for sensory stimulation is the behavior of children with sensory problems that often appear in learning and are poorly understood by teachers, so they become obstacles in children's daily activities. Departing from this condition, the manual for sensory stimulation guideline is needed to socialize through teacher training using appropriate teaching materials to enable teachers to integrate sensory stimulation programs into the learning process (Pribadi, 2015).

After understanding the stunting, the reasons, and the symptoms, we can take preventive action to avoid happening to our children. Here are some ways to prevent stunting, to meet the appropriate nutritional needs for children in the first thousand days of life, to meet the nutritional needs of pregnant mothers, to meet the protein on the daily menu for children according to their age, to maintain the clean sanitation and to meet the needs of clean water, to provide psychosocial stimulation, and to bring the children routinely to the center of nutrition (BKB/PAUD/Posyandu) once a month. The children under five should regularly have their weight and height measured in order to know whether the children are stunting or not. Such as an explanation about creating an anti-stunting generation of badly needed by parents hoping that the children can grow and develop physically and mentally (Indonesian Ministry of Health, 2018).

The children's growth needs to be stimulated by parents or caregivers to grow and develop optimally according to their age. Naturally, psychosocial stimulation comes from the children's environment. Therefore, children who get direct stimulation can develop faster than those who do not even get stimulation. In addition, psychosocial stimulation can also serve as a beneficial reinforcement of children's development (Kania, 2006).

Based on lots of research done, stunting is caused by several internal and external factors. The external factors are those which influence family socio-economy, such as mother's education level, mother's employment status, and family income (Ardiyah, Rohmawati, and Ririanty 2015; Ni'mah and Nadhiroh 2015). According to Par'i and Utami (2017), a mother's knowledge of nutrition, feeding, and personal hygiene affects the increase of nutritional status that can improve community nutrition. This improvement can reduce stunting rates. Manjujai activity can be used as an intervention for early childhood development, motoric, and cognitive. In addition, this form of psychosocial stimulation can strengthen the bonding or

attachment between mother and children, provide a sense of comfort, security, and happiness. Such a condition can affect physical growth and brain development optimally.

5 Conclusions and Suggestions

The module of psychosocial stimulation Manujai consists of the guideline for the parents or caregivers to implement the Manujai to the stunting children which include introducing vocabularies in the form of speaking pleasantly, communicatively, persuasively, while always appreciating them; showing them pictures of their interest to let them know things, plants, and creatures in their environment; motivating them to sing Minangkabau songs together or personally in which the words or the phrases reflect religious and moral teaching; reading poems or stories which reflect religious and moral teaching. All the activities carried out are expected to promote the physical growth and brain development of the stunting children under five.

Thus, the children's social, emotional, cognitive, motoric, and linguistic abilities are expected to improve. This study attempts to reconsider the culture of Manujai for the parenting process as the baseline of early education in Minangkabau society. We may come to the following policy suggestions based on the analysis. First, the Department of Education and Culture and Health in West Sumatra and Indonesia should make minor investments in designing culture and health-based curricula interfaces. Although it's not a core subject, for example, the elementary schools in West Sumatra should contain Manujai applications on the learning materials. Second, A public effort should be launched to educate parents on applying the Manujai procedure for their children. Third, some documentary films are also suggested to socialize Manujai to the community.

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