

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

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ABSTRACT: This research aims to investigate the potential of the traditional 3M games (Marsitekka, Marsibahe, and Marampera) of the Toba Batak tribe in increasing psychosocial stimulus as a stunting prevention strategy in children in terms of their validity, practicality and effectiveness. The research method used is a qualitative approach by collecting data through participant observation and distributing questionnaires as well as providing the 3Marsiram module. The research results show that 3M traditional games are able to significantly strengthen children's social interactions, cognitive development and motor skills. The results of the validity of material, language and media through the 3Marsiram module were sequentially 3.49, 3.40, 3.50 and were declared very valid. The practicality result is 3.6 and is in the very good category. Furthermore, to determine the effectiveness, data processing was carried out using a question instrument which aims to determine the effect of using the 3Marsiram module, a traditional game of the Toba Batak tribe to increase psychosocial stimulus. The pre test results were 58.6% and the post test results were 69.6%. Based on the correlation coefficient value (Correlation) of 0.409 with a significance value (Sig.) of 0.025, and the "Paired Sample Test" output table shows the Sig value. (2-tailed) is $0.000 < 0.05$ so it is said that there is an influence between the pre-test and post-test giving the 3Marsiram module. The R-Square value of 0.843 shows the strength of the influence of using the 3Marsiram module for the 3M Traditional Game of the Batak Toba Tribe (Post Test) in increasing children's psychosocial stimulus, providing an influence of 84.3% (Trust) because the value is above 0.780 or 78%. The impact is that the potential for preventing stunting can be optimized through increasing psychosocial stimulation for children in the community and throughout the world. These findings have important implications in supporting the implementation of local culture-based stunting prevention programs. Suggestions for further research are to involve more local communities and measure the long-term impact of the use of traditional games in the context of children's health.

KEYWORDS: Psychosocial, Stimulus, Stunting, Traditional Culture, 3Marsiram

INTRODUCTION

The development of social emotional skills occurs along with sensory- motor, cognitive, and language capacities and provides the basis for emotional well- being and socio-emotional functioning and behavior (National Scientific Council on the Developing Child, 2004) . Longitudinal studies examining the relationship between nutritional status and socio-emotional outcomes show that children who are stunted or underweight in early childhood exhibit poorer social skills and experience more problems at school age than children with adequate nutritional status (Chang et al., 2002; Galler and Ramsey, 1989; Richardson et al., 1972). Only a few nutritional supplementation trials have examined long-term effects on socio- emotional outcomes (Barrett and Radke-Yarrow, 1985; Barrett et al., 1982; Chang et al., 2002), and these have had follow-up periods only up to eight years of age.

Psychosocial stimulation and prevention of malnutrition have received much attention in recent years as integral components of child development and public health. The interaction between the environment and stimuli can help the development of a child's brain in forming neural structures (Hati & Lestari, 2016). Children who receive targeted and regular stimulation develop faster than children who receive less stimulation (Hashim, et al., 2017). Several factors, such as prenatal and postnatal nutrition, psychosocial stimulation, environmental characteristics, and maternal mental health, play an important role in promoting brain development and fostering healthy child development (Aboud and Yousafzai, 2015). Along with sensory-motor, cognitive, and language abilities, it is these factors that contribute to the development of socioemotional skills.

Psychosocial stimulation or encouragement can take the form of providing toys, socializing children, involving mothers and other family members in children's activities (Ministry of Health, 2015). The form of stimulation provided also varies, it can be in the form of providing nutritious food, exercise in moving, speaking, thinking, independence and socialization depending on the parents' creativity. Various research studies have proven the effectiveness of the role of increasing psychosocial stimuli in improving children's growth and development. There is also research on the psychosocial development of children aged 3-4 years

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

who are entrusted to daycare in Malang City and show sufficient psychosocial development (Agustia et al., 2021). This proves that the environment and parenting patterns have a significant influence on children's psychosocial development. The aspect of increasing psychosocial stimulus is now very important to research because it has an impact on children's psychosocial development (Yulianto, et al, 2017).

This research is a development of previous research with a game concept that is different from the research conducted by Delima, et al, with the title ""Manjujai Anak" Health Education on Mother's Knowledge and Motor Development of Children 12 - 24 Months". The research results show that there is an influence of providing health education using the Manjujai module on the mother's level of knowledge in stimulating child development with the average level of mother's knowledge before being given treatment was 18.42% and after being given the treatment increased to 22.78%. Furthermore, there is an influence of health education using the Manjujai module on fine motor development and gross motor development of children in the Belimbing Community Health Center working area with the distribution of fine motor development pre test amounting to 73.3% in the late category and post test decreasing to 16.7%, while motor development Pre-test children's rough score was 66.7% and post-test decreased to 13.3% (Delima et al., 2019).

As an effort to optimize psychosocial aspects, this is done through traditional 3M games (Marsitekka, Marsibahe, Marampera) of the Toba Batak tribe. Traditional games are full of ethics, morals and culture, creativity, cooperation, honesty, discipline and democracy (Badu, 2011). In this case, the Toba Batak tribe has developed a cultural identity that is deeply rooted in their traditional practices. 3M games play an important role, apart from being played for entertainment, these games are also deeply rooted in their cultural identity and way of life. To understand its potential as an instrument for psychosocial development and stunting prevention, it is necessary to contextualize these activities in cultural settings.

In addition, due to the holistic nature of 3M Batak Toba activities, research in the field of psychosocial stimulation and stunting prevention is quite promising. This activity involves physical activity, social interaction, and cognitive stimulation, it represents a multifaceted approach to child development. By investigating the mechanisms, cultural meaning and potential benefits of this game, it is hoped to highlight its applicability beyond the boundaries of the Toba Batak community, thereby contributing to the global discourse on child welfare.

This article will examine the activities of 3M Batak Toba as an innovative and culturally rooted method for increasing children's psychosocial stimulation and preventing malnutrition. By analyzing these activities in cultural context and highlighting their diversity, we hope to demonstrate the importance of local interventions in addressing global problems related to child development and public health.

RESEARCH METHOD

This research method uses a development research method which refers to the Plomp development model which consists of three phases, namely the initial investigation phase (preliminary research), the prototype making phase (prototyping phase), and the assessment phase (Masamah, 2018).

1. Research Location

The location for this research will be carried out in Aruan Village, Laguboti District, Toba Regency, North Sumatra Province. This area is part of the location where research will be carried out regarding the games of the Toba Batak tribe. Aruan Village consists of three hamlets, namely Gompar Sibasar, Gompar Tahan, and Sosor. The majority of Aruan Village residents are Toba people.

2. Research Design

The design in this research uses R & D (Research and Development). R & D is a research method used to produce certain products and test the effectiveness of these products (Rustandi & Rismayanti, 2021). This research will develop the 3M Traditional Game of the Toba Batak Tribe to increase Psychosocial Stimulus to Prevent Stunting. This research procedure uses Plomp Development. The instruments developed in research aim to collect the data needed to produce new products and theories (Zahara et al., 2020).

3. Stages of Research Implementation

Development process Game Traditional 3M Toba Batak Tribe for increase Psychosocial Stimulus Prevent Stunting through a number of stages implementation research take stages development of the model proposed by Plomp (2013) that design research consists from a number of stages , namely : 1) research preliminary; 2) prototype stage; 3) stage assessment. From the description of the diagram above, there are several considerations that strengthen researchers to use the Plomp development model. First, with the preliminary research stage, researchers have a strong basis for designing/developing interventions according to the problems and needs of potential users. Second, there is measurement/testing of the level of validity, practicality and effectiveness of interventions which theoretically researchers do not encounter in design research. Third, this stage is more flexible so that it can be adjusted to the researcher's needs and research characteristics.

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

4. Data Collection Sources and Techniques

As for technique collecting data in research This used in data collection , activities and objectives , instruments and procedures development on each stage research development game traditional 3M (Marsibahe, Marsitekka, and Marampera) of the Toba Batak tribe in aspect increased psychosocial stimulus child Stunting prevention can be seen in table.

Table 1 Data Collection Techniques

No	Development Stage	Research Activities	Activity Description
1	Preliminary research stage (<i>preliminary research</i>)	a. Needs and context analysis b. Literature review c. Development of a conceptual framework	a. Analyze what needs are needed to develop a product and analyze in what context the product will be used. b. Conduct a literature review that can be used as a guide in developing products. The literature at this stage is the traditional 3M game (Marsibahe, Marsitekka, and Marampera) of the Toba Batak tribe in the cultural aspect c. Determine the conceptual framework for developing products, resulting from needs and context analysis as well as the results of the literature review obtained. The aspects specified in the conceptual framework are product objectives, product characteristics in accordance with the needs of potential users, product components consisting of syntax, social systems, reaction systems, support systems and intrusive learning outcomes
2	Prototype Development Stage (<i>prototyping phase</i>)	a. Design an initial prototype of the product b. Formative evaluation	a. The product prototype was designed based on the conceptual framework from the preliminary research stage. The intervention product in this research took the form of three types of 3M traditional games (Marsibahe, Marsitekka, and Marampera) b. The formative evaluation used in prototype development refers to formative evaluation from Tessmer (1993) which consists of <i>self-evaluation</i> , <i>expert review</i> , <i>one to one evaluation</i> , <i>small group evaluation</i> and <i>field test</i>
3	Assessment Stage (<i>assessment stage</i>)	Semi-summative evaluation	The product assessment stage is more directed towards testing the effectiveness of research products that are valid and fully practical in learning. This stage carried out a field test (<i>field test</i>) through experimental research

Modified from Plomp (2013) according to research needs.

5. Research Objects and Variables

The objects of this research are children in Laguboti District, Toba Regency, North Sumatra Province. The variables that support this research are: (1) Variable free (X). The independent variable (X) in this research is the 3M game of the Toba Batak Tribe, namely Marsibahe, Marsitekka, and Marampera; (2) Variable bound (Y). The dependent variable (Y) in this research is an increase in children's psychosocial stimuli

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

6. Data Analysis Techniques

This development research uses two data analysis techniques, namely qualitative descriptive analysis techniques and quantitative descriptive analysis. The data analyzed is data resulting from the development of children's psychosocial stimuli using the 3M traditional game media of the Toba Batak tribe. The data that has been obtained is then collected and analyzed

7. Interpretation and Drawing Conclusions

The interpretation and conclusion drawn from this research is through the hypothesis that the 3M Batak Toba tribe's traditional games on increasing psychosocial stimuli to prevent stunting can develop culture through traditional games in psychosocial changes for children experiencing stunting. This type of R&D (*Research and Development*) research tested the effectiveness of traditional 3M games from the Toba Batak tribe in increasing psychosocial stimuli to prevent stunting

RESULT AND DISCUSSION

The validity carried out in this research emphasizes content validity and construct validity contained in the 3 Marsiram module. Content validity here is declared valid by the validator because the teaching materials developed are in accordance with the material that should be presented. To test the validity of the construct (construct validity), expert opinion (judgment validity) can be used (Riduwan, 2008: 97). The feasibility of the Teaching Material Module is assessed with a range of 1-4. Data from the analysis are categorized as follows: mean > 3.20 = very valid, mean ≤ 3.20 = valid, mean ≤ 2.40 = quite valid, mean ≤ 1.60 = less valid, mean ≤ 0.80 = invalid (Mulyardi, 2006)

Table 2. Material Aspect Validity Results

Material Aspects				
No	Indicator	Description	Average Score	Category
1	Conformity of module content	The material presented in the material is appropriate/relevant to traditional 3M games	3.80	Very Valid
2	Completeness of learning materials in a systematic sequence and arrangement	The material presented in the module is appropriate/relevant to the learning objectives	3.60	Very Valid
3	The truth of the material concept is viewed from a scientific aspect	The concepts and explanations presented are in accordance with the concepts and definitions applicable in the field of science	3.70	Very Valid
4	Clarity of learning topics	The topics discussed in the module can be understood clearly	3.80	Very Valid
5	Material coverage	The material contained in the module includes increasing children's psychosocial stimuli	3.70	Very Valid
6	Material completeness	The material in the module is discussed thoroughly	3.00	Valid
7	Suitability of the level of difficulty and abstractness of concepts with children's cognitive development	The level of difficulty and abstractness of the concept is appropriate to the child's level of thinking, so it can be understood easily	2.80	Valid
8	There are cognitive aspects contained in the material contained in the module	Cognitive aspects are included in the material	3.50	Very Valid
9	There is psychomotor aspect content in the material contained in the module	Psychomotor aspects have been integrated into the material	3.50	Very Valid
10	There is an affective content in the material contained in the module	Affective aspects have been integrated into the material	3.50	Very Valid
Amount			34.9	Very Valid
Average			3.49	

Table 3. Validity Results of Language Aspects

Language Aspects					
No	Aspect	Indicator	Assessment Items	Average	Category
1	Straightforward	Accuracy of sentence structure	The sentences used represent the content of the message/information	3.80	Very Valid
		Sentence effectiveness	Use simple and direct a sentence	3.50	Very

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

					Valid
		Standardity of terms	In accordance with the large Indonesian dictionary	3.70	Very Valid
2	Communicative	Understanding the message or information	Information is conveyed in interesting language	3.75	Very Valid
3	Dialogical and communicative	Ability to motivate students	Motivate students to read it and encourage them to study it	3.50	Very Valid
		Ability to encourage critical thinking	Students are able to find answers independently	3.20	Very Valid
4	Suitability to student development	Suitability to students' intellectual development	Use language that is appropriate to the level of cognitive development of students	3.10	Valid
		Suitability to the level of emotional development of students	Use language that suits the emotional level of students	3.10	Valid
5	Conformity to language rules	Language accuracy	Sentence structure refers to the rules of good and correct Indonesian grammar	3.50	Very Valid
6	Use of terms, symbols, or icons	Spelling accuracy	Refers to refined spelling	3.50	Very Valid
		Consistency in use of terms	Describe a consistent concept between sections in teaching materials	3.10	Valid
		Consistent use of symbols or icons	The depiction of symbols or icons is consistent between sections in the teaching material	3.10	Valid
Amount				40.85	Very Valid
Average				3.40	

Table 4 Media Aspect Validity Results

Media Aspect				
No	Aspect	Indicator	Average	Category
1	Module Size	Module sizes comply with ISO standards	3.50	Very Valid
		Matching the size of margins and paper on the module	3.40	Very Valid
2	Module Leather Design (Cover)	The module skin illustration depicts the content/teaching material and reveals the character of the object	3.30	Very Valid
		Don't use too many font combinations	3.70	Very Valid
		The module title color contrasts with the background color	3.80	Very Valid
		The proportion of the font size for the title, subtitle and supporting text of the module is more dominant and professional than the size of the module and the author's name	3.60	Very Valid
3	Module content design	Suitability of module material with learning objectives	3.60	Very Valid
		The use of letter variations is not excessive	3.50	Very Valid
		Image conformity with text message (material)	3.50	Very Valid

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

		The space between lines in normal text	3.30	Very Valid
		Normal spacing between letters	3.50	Very Valid
		The attractive appearance of 3M traditional game modules	3.40	Very Valid
Amount			42.1	Very
Average			3.50	Valid

Based on the validation results of the 3Marsiram module, 3 aspects of validity indicators were declared to be very valid. Based on the material aspect, the module is in accordance with the standard provisions for teaching materials for children (elementary school category). According to the Ministry of National Education (2006) teaching materials are a set of materials that are arranged systematically, whether written or not, so as to create an environment or atmosphere that allows students to learn. The content of teaching materials is developed based on concepts and theories that apply in the field of science and in accordance with developments in the field and the results of empirical research conducted in that field of science.

Based on language and readability aspects, the teaching materials developed through the 3Marsiram module are made according to students' level of understanding and ability to understand the content and language of the teaching materials. In developing teaching materials as modules, the use of language is an important factor. The use of language, which includes choosing a variety of language, choosing words, using effective sentences and preparing meaningful paragraphs, greatly influences the benefits of teaching materials. Even though the content of the teaching materials is careful, uses a consistent format and is packaged attractively, if the language used is not understood by students, then the teaching materials will not be meaningful (Belawati, 2003: 39). Good teaching materials are expected to motivate students to read, do their assignments and arouse students' curiosity to explore further about the topics they are studying.

Based on presentation and media aspects, teaching materials are in accordance with the criteria for writing standard teaching materials and are presented systematically. The relationships between materials or topics are explained carefully, then each topic is presented. It is important to assess whether these teaching materials are designed to support the learning process, including whether there are elements such as exercises, case studies, or the use of images, graphics and multimedia that can help students understand the material better.

PRACTICAL RESULTS

Practicality is a measure to determine the usability of the product being created by users. The measure of practicality of a product can be measured from the ease and presentation of a product by users (Agustyaningrum & Gusmania, 2017). The practicality aspect measured in this paper includes the ease of users or students in using the 3Marsiram teaching material module using five main indicators including; effectiveness, creativity, efficiency, interactiveness, and attractiveness of teaching materials.

The 3Marsiram teaching material module has been tested on 30 respondents who are children attending SDN No. 173551 Laguboti. Based on the results of the practicality test questionnaire on 30 respondents, the decision-making criteria will refer to the range of values contained in the following table.

Table 5. Practicality Testing Criteria for Teaching Material Modules

Mark	Score Intervals	Category
A	$X > 3.6$	Very good
B	$3.20 < X \leq 3.6$	Good
C	$2.80 < X \leq 3.20$	Enough
D	$2.4 < X \leq 2.80$	Not enough
E	$X \leq 2.4$	Very less

Table 5 shows that the practicality of the 3Marsiram teaching material module is said to be practical if it obtains a questionnaire score above 3.20. The results of the practicality questionnaire for the 30 respondents are in the following table.

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

Table 6. Table of Practicality Testing Results for Teaching Materials

No.	Score Intervals	Mark	Category
1	Effective	3.40	Good
2	Creative	3.50	Good
3	Efficient	3.65	Very good
4	Interactive	3.80	Very good
5	Interesting	3.65	Very good
Amount		18	Very good
Average		3.6	

Based on Table 6. It can be seen that the average score of the five indicators and 25 statements is 3.6. Based on the criteria in Table 6, it can be concluded that the 3Marsiram teaching material module is in the very good category. Furthermore, each indicator in the practicality questionnaire received a score of more than 3.20. This means that each indicator also has a good quality value based on practitioner assessment.

EFFECTIVENESS RESULTS

Next, for knowing the effectiveness done data analysis through a question instrument which aims to determine the effect of using the 3Marsiram module, a traditional game of the Toba Batak tribe to increase psychosocial stimulus. Processing and compiling basic data done using Microsoft Excel 2019. Analysis statistics done with use device soft IBM SPSS statistics version 25.0. Normality test done Because all calculation statistics parametric own assumption normality distribution. Aired Sample T-Test aims to find out whether the Pre Test and Post Test samples experience significant changes. Meanwhile, the independent sample T-Test and partial test (t test) are to test how each variable influences which is considered constant , as well as a simple Linear Regression test For see how much big influence use of the 3Marsiram module, a traditional game of the Toba Batak tribe to increase psychosocial stimulus.

Table 7 Normality Test

<i>Tests of Normality</i>							
	Increasing Children's Psychosocial Stimulus	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistics	df	Sig.	Statistics	df	Sig.
<i>Game Traditional 3M Toba Batak Tribe</i>	Pre Test	.153	30	.070	.961	30	.329
	Post Test	.148	30	.091	.952	30	.191
<i>a. Lilliefors Significance Correction</i>							

Based on the Test of Normality output table in the Shapiro-Wilk test section, it is known Sig value. For mark Pre Test amounted to 0.329 and the Post Test value was 0.191. Because of value the bigger of 0.05 then can concluded that mark Pre Test and Post Test are normally distributed. With thereby so precondition or assumption normality in testing paired sample t test already fulfilled

Table 8 Paired Sample Test

<i>Paired Samples Correlations</i>				
		N	Correlation	Sig.
<i>Pair 1</i>	Pre Test & Post Test	30	.409	.025

Output above show results correlation or connection between between Pre Test and Post Test. Based on mark coefficient correlation

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

(Correlation) of 0.409 with mark significance (Sig.) of 0.025. Sig value. > value probability (0.05), then can said that There is connection between variable Pre Test with Post Test variables. It means use of the 3Marsiram module game traditional 3 M Toba Batak tribe provides

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Test - Post Test	-4.93333	4.20946	.76854	-6.50517	-3.36150	-6,419	29	,000

Hypothesis

Ho = None difference between Pre Test with Post Test which means No There is influence Game Traditional 3M Toba Batak Tribe in increasing psychosocial stimuli child

Ha = There is a difference between Pre Test with Post Test which means There is influence Game Traditional 3M Toba Batak Tribe in increasing psychosocial stimuli child

Based on the "Paired Sample Test" output table is known Sig value. (2-tailed) is equal to $0.000 < 0.05$. So, in conclusion, Ho is rejected and Ha is accepted. That means, there is influence use of the 3Marsiram module Game Traditional 3M Toba Batak Tribe before carried out (Pre Test) with after applied (Post Test) in increasing psychosocial stimuli child.

T test

T count > t table also answers hypothesis, where the calculated t value is $6.419 > t$ table 2.045 so can concluded that Ho is rejected and Ha is accepted. So that There is influence use of the 3Marsira module Game Traditional 3M Toba Batak Tribe in increasing psychosocial stimuli child

Table 9 Analysis Simple Linear Regression (R-Square)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.843 ^a	.711	.703	6,973
a. Predictors: (Constant), Post Test				

Based on table on is known that The R-Square value is 0.843 means strength influence use use of the 3Marsiram module Game Traditional 3M Toba Batak Tribe (Post Test) in increasing psychosocial stimuli child give influence of 84.3% (Trust) because value above 0.780 or 78 %

Table 10. Results of R Square Model 1

Variable	R-Square
Trust	0.780
Satisfaction	0.479
Loyalty	0.851
Brand Equity	0.471

Elaboration of Traditional Games of the 3m Batak Toba Tribe as an Effort to Increase Psychosocial Stimulus to Prevent Stunting

CONCLUSION

Traditional 3M (Marsitekka, Marsibahe, Marampera) game module against increasing psychosocial stimuli child stunting prevention showed considerable influence. According to study, this traditional game helps improve children's social skills, cognitive development, and motor skills. This approach shows how local culture may solve global issues like stunting. Communities can use their cultural assets to improve children's psychological and health by preserving and promoting traditional games like 3M. This study emphasizes the need for a holistic approach to children's health that integrates local culture with global efforts.

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