Application design of early detection instruments of emotional behavioral problems questionnaire (KMPE) android-based mobile on the motivation of nurses in detecting children's emotional behavior promblems

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Abstract---Introduction: Early detection of child growth and development and optimal early stimulation is a part of child health efforts in forming qualified humans. For supporting the efforts of detecting child development optimally, we need to apply technology such as interactive websites and Android so that the information is more easily accessible to all corners of the world. This study aims to develop an application for early detection of emotional behavior problems (KMPE) Mobile on pre-school children using android-based Method: This research method were quantitative and qualitative. The types of data in this development research. Qualitative data were obtained verbally from material experts/experts in their fields/experts, experienced field experts, media experts. The form of this qualitative data is in the form of suggestions, criticisms, notes, comments, suggestions and opinions. The research method used in the early stages was by analyzing the initial product to be developed, developing the initial product, expert validation & revision, small-scale field trials, and at the following stage was by conducting an effectiveness test. Result: The results of the quantitative data showed that the feasibility test obtained data from material experts were very feasible (90 %) can be implemented, media experts were very feasible (88%) can be implemented, and the field experts were very feasible

(80%) can be implemented and in small groups, it was very feasible (85%) can be implemented. Conclusion: The use of the application for early detection of deviations in emotional behavior was feasible and can be applied at the age of 36 to 72 months.

Keywords---early detection instruments, children's emotional behavioral, nurses, pre-school children.

Introduction

Children are the greatest gift of family, religion, nation and state. In the life of the nation and state, children are the successors of the ideals for the progress of a nation because they carry the continuity of the noble ideals of a nation on their shoulders (Hidayat, 2008). Every nation in this world wants children as the next generation of quality (Drotar *et al.*, 2008).

The number of children under five in Indonesia is very large, which is about 10 percent of the entire population, so as a candidate for the nation's next generation, the quality of growth and development of children under five in Indonesia needs serious attention in the form of quality health services including early detection and intervention of developmental deviations and various environmental factors that can interfere child development needs to be eliminated (Kemenkes, 2016).

Child health problems are still a major problem in Indonesia, so that children's health problems are still a priority so that children can grow and develop optimally both physically and psychologically. One of the psychological health problems of children is behavioral or mental emotional problems which if not handled properly will have a negative impact on adulthood (Risnawati, et al., 2016).

Parents often don't know about emotional problems and mental disorders in children, so that children who should receive treatment escape the attention of parents. Parents play a major role in minimizing the severity of emotional problems and mental disorders by paying attention to changes in children's behavior. Most of the developmental delays in children are not detected, making it difficult for children to develop their potential (Grover, 2015).

Currently, there is a great need for instruments that can facilitate early detection of emotional problems and mental disorders in children (Baiquny et al., 2017). A good instrument is *designed* with very simple language, images and skills and is very easy to understand by health workers and can improve and improve the performance of nurses.

Materials and Methods

This research type is quantitative. The research method used in the early stages was by analyzing the initial product to be developed, developing the initial product, expert validation & revision, small-scale field trials, and at the following

stage was by conducting an effectiveness test. The types of data in this development research are qualitative and quantitative data. Qualitative data were obtained verbally from material experts/experts in their fields/experts, experienced field experts, media experts. The form of this qualitative data is in the form of suggestions, criticisms, notes, comments, suggestions and opinions. While quantitative data is in the form of assessment results in the form of scores and percentages of questionnaires obtained from material experts, field experts, IT experts (Media) and from small groups.data is obtained from the validation results of the expert team to see the value of feasibility

Results

KMPE Application Development Products in collaboration with the IT team. The researcher then made improvements to the application based on material expert input. Researchers tested the use of the KMPE application, before Phase 2 was carried out in the form of the effectiveness of using the application on a large number of respondents. The results of the trial using this application are in the form of data and language revisions so that it will be easier for implementing nurses.

Table.1 Feasibility Test

NO	FEASIBILITY TEST	PROCENTAGE	QUALIFICATION	FOLLOW-UP
1	MATERIAL EXPERT	90 %	Very feasible	Implementation
2	MEDIA EXPERT	88 %	Very feasible	Implementation
3	FIELD EXPERT	80 %	Very feasible	Implementation
4	SMALL GROUP	85 %	Very feasible	Implementation

The results of the feasibility test obtained data from material experts very feasible (90%) can be implemented , media experts are very feasible (88%) can be implemented, field experts are very feasible (80%) can be implemented and in small groups it is very feasible (85%) can be implemented.

Discussion

Validity testing was carried out by material experts, field experts, small groups and the IT team. The Trial (Validity) is carried out by Material Experts (Child Development Experts). The trial questionnaire for child development experts includes aspects of the suitability of the material and the purpose of the assessment, the suitability of the material with the child's growth stage, ease of understanding and obtaining complete information in using the application, Presentation of attractive media displays according to the material. Trial (Validity) is also carried out by Field Experts. The trial questionnaire for field experts includes aspects of the suitability of the material and objectives, the suitability of the material for detecting child growth and development and emotional behavior problems, ease of understanding and obtaining complete information in the use of applications, Presentation of media displays can increase the motivation of implementing nurses. Trial (Validity) conducted by Small Group.

The trial questionnaire for small groups includes aspects of the usefulness of using the KMPE *Mobile*, the suitability of the material for detecting child growth and development, the suitability of the material for detecting emotional behavior problems, ease of understanding and obtaining complete information in using the application, Presentation of media displays can increase the motivation of implementing nurses. The Trial (Validity) is carried out by the IT Team (Application Developer). The trial questionnaire for the IT team includes aspects of the suitability of writing with clear images, the suitability of the material with the objectives to be assessed, the ease of understanding the flow in the use of the application, the suitability of image variations and color composition.

Conclusions

Based on the results of the study, it can be concluded as follows: Using the application for early detection of emotional behavior deviations can be done at the age of 36 months to 72 months. The use of applications for early detection of emotional behavior deviations can save time. The use of applications for early detection of deviations in emotional behavior is very efficient and can be carried anywhere. The use of applications for early detection of deviations in emotional behavior is considered feasible to operate.

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