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### EFFECTIVENESS OF ANDROID APPLICATIONS AND KIA BOOKS ON EARLY DETECTION OF PREGNANCY RISK FACTORS

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#### ABSTRACT

*Implementation of the Maternal and Child Health (KIA) Program for establish and improve range as well as quality KIA services on an ongoing basis effective purposeful and efficient. Antenatal care provides a platform for functions service important health, incl \_ promotion health, screening and diagnosis, and prevention disease so that produce proper management \_ during pregnancy, childbirth and the postpartum period. Objective study This is For know comparison effectiveness application Android and KIA book against detection early factor risk pregnancy. Method research used \_ is Quasi experimental ( pretest- posttest only control design). Population in study This is all midwives on duty at the Community Health Center Intersection Three Pekanbaru and all Mother pregnant who did antenatal check-up at the Community Health Center Intersection Three Pekanbaru. In study This use sample Midwives and pregnant women. Technique taking samples in research This use purposive sampling. Amount sample as many as 36 people (18 groups intervention and 18 groups control). Determination amount sample Mother pregnant use formula Lemeshow, got it sample Mother pregnant as many as 44 people were divided become two groups (22 groups intervention and 22 control groups). Research result show there is difference effectiveness between detection early factor risk pregnancy use KIA book and use Android app with mark p-value < (p =0.05), reviewed from aspect convenience ( p=0.000), speed ( p=0.006), security ( p=0.005) and data accuracy ( p=0.000). So that can concluded that use application Android against detection early factor risk pregnancy more effective without rule out utility KIA book as tool help KIA services.*

*Keywords : Effectiveness Android Application and KIA Book.*

#### INTRODUCTION

Use the KIA (Maternal and Child Health) book is effort power to use society, in particular family so they can look after his health and gain service related health Mother nor quality children. Women's health pregnant Still is problems that require ongoing care from time to time (Continuity of care/COC).

At the beginning of the Sustainable Development Goals (SDGs) era, they were high number morbidity and mortality are related possible pregnancy prevented through inspection pregnancy/antenatal Care (ANC). The World Health Organization (WHO) recommends contact First Mother performed in the first trimester pregnancy (age < 12 weeks gestation) with objective For do evaluation risk beginning

pregnancy. Every pregnancy need care skilled, and possible just a number of Mother pregnant will need intervention obstetrics big For endure life because exists complicate or complications during pregnancy.

The Women's presentation is not experience complications during pregnancy based on data from the 2017 Indonesian Demographic Health Survey (SDKI), it decreased from 89% in 2007 to 81% in 2017. Case most found is Because reported bleeding experience enhancement from 3% in 2007 to 5.3 % of 15,021 births 2017 increase. This happen Because exists limitations in do identification in a way appropriate or detection early bleeding in pregnancy which is consequence from no affordable service medical marked modern with exists gap information.

In service health mother and baby from pregnancy, childbirth, postpartum, infancy new born until 6 year old and family planned until moment This The KIA book is tools used as method conventional in support service health. Use KIA book aims For increase surveillance, monitoring and systems information Where there is continuity required information both by midwives, mothers and families about condition mothers, babies and toddlers, reduce lateness control risk high, reduce impact infection, compliance to standard service obstetrics, reduce lateness in reference to House Sick .

That problem then arise from use KIA book is No all factor risk Mother pregnant covered in book this, ability midwife or power health is not equally in utilization KIA book as one tool For do antenatal care sustainable where is one its function used For find or detect factor risks, complications and complications pregnancy at the time giving care pregnancy cause lateness detection early factor risk possible pregnancy develop become complications and complications in pregnancy, childbirth and the postpartum period.

One of effort in handle circumstances the through utilization system Android application because moment This development knowledge increasing knowledge increase give impact positive not exception in field health.

One of superiority use system expert in service midwifery specifically in detection early factor risk pregnancy is system This capable give solution to weakness use KIA book , system intelligent This provide the same functions with what is available in KIA book, however packed more interesting. Data accuracy and determination factor risk based on results inputting inspection data. Midwife capable access history inspection pregnancy as well as confidentiality of maternal data pregnant more guaranteed, because only midwife who can access to in application this .

Study This aim For create and develop tools/media that can used in service

midwifery specifically in disconnect eye chain death mother caused by mistake diagnosis and delays taking decision Because no ability in recognize factor risk pregnancy at the time antenatal check-up .

## RESEARCH METHODS

Study This is study experiment with design Quasi Experimental research (Pretest-posttest control group design). The research locations were carried out in two place that is Public health center Intersection Three and Community Health Center Sidomulyo with technique taking Sample I used purposive sampling. Determination amount sample use Isaac and Michael's table with level 5% error with amount population of 40 midwives so sample used as many as 36 people were divided become two groups (8 groups intervention provided Android application and 18 control groups who used it KIA book). Determination amount sample II uses formula Lemeshow and earned sample Mother pregnant as many as 44 people were divided become two groups (22 groups intervention use Android app and 22 groups control use KIA book).

Tools and materials used in study This is an Android cellphone, and an application designed and created by researchers cooperate with IT expert . instrument For measure level effectiveness Android applications use questionnaire with scale likert. Data collection with involving 2 groups sample (mother pregnant and midwife) in 2 different places , where at the Community Health Center Sidomulyo do detection early factor risk pregnancy use method conventional (KIA Book) and at the Community Health Center Intersection Three use Method Application Android based . In groups intervention , before done study moreover formerly done pre-test to midwife about effectiveness use KIA book in detect factor risk pregnancy Then done socialization about Android application continues with inspection Mother pregnant use application , after That

done post test on midwives For know Android effectiveness.

In groups control, researcher direct do observation and research about results detection early factor risk pregnancy in the mother pregnant through examination carried out by a midwife use KIA book . Data analyzed with use Analysis Mann Whitney statistics for know difference effectiveness Application Android based and method conventional (KIA Book) against detection early factor risk pregnancy .

## RESULTS AND DISCUSSION

Category age respondents in both relatively different groups with mark significant 0.044, though thereby midwife in both group tend are in the category age mature young (26-35 years). Based on education show heterogeneous (different) data variations with mark significant < 0.001, though so in the second group tend educated Lastly, DIII obstetrics . Based on length of service show homogeneous data variations with level significant 0.509 and tendency midwife on the second group has worked >5 years. If seen from employment status own homogeneous data variations with level significant 0.230 and midwives in both group dominant non- apparatus status State Civil Service (ASN).

Effectiveness use method conventional (KIA Book) and Android Applications in detection early factor risk pregnancy , where results study show that more Android apps effective detect factor risk pregnancy compared to with method conventional , from aspect effectiveness show Still Lots midwife consider use the KIA book does not easy For used in care obstetrics , no fast in charging KIA book, no safe in storage of patient data and and No accurate in do detection early factor risk pregnancy compared to the Android Application.

There is difference effectiveness between detection early factor risk pregnancy use KIA book and use Android app with p- value < (p=0.05). From ranking.

## CONCLUSION

Deep conclusion study This are use more Android apps effective used in do detection early factor risk pregnancy compared to with KIA book with p value < 0.05

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