

ABSTRAK

MODEL SIMULATOR RISIKO BAWAH GARIS MERAH PADA BAWAH LIMA TAHUN DI PROVINSI LAMPUNG

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Kekurangan gizi pada tingkat awal diperlihatkan dengan penurunan berat badan, pada tingkat berat, kekurangan berat badan akan terlihat pada plot titik Kartu Menuju Sehat (KMS) berada pada Bawah Garis Merah (BGM). Dampaknya, balita BGM berisiko mengalami gangguan perkembangan dan pertumbuhan secara fisik, kecerdasan, daya tahan, dan produktivitas, bahkan dapat menyebabkan kematian. KMS balita belum secara dini dapat digunakan sebagai alat untuk memprediksi balita kurang gizi karena informasi kekurangan gizi balita diperoleh dalam kurun waktu bulanan. Penelitian ini bertujuan memperoleh model simulator yang dapat memprediksi kejadian balita BGM dan alternatif intervensinya yang didasarkan pada permasalahan gizi kurang di Provinsi Lampung.

Metode penelitian menggunakan desain *cross sectional* dengan studi kualitatif dan kuantitatif di Kabupaten Tanggamus, Tulang Bawang, dan Kota Bandarlampung yang merepresentasikan populasi Lampung secara demografi, sosial, dan budaya, dengan sampel sebanyak 2.520 balita yang mewakili populasi Lampung. Studi kualitatif dilakukan untuk memperoleh masukan dari informan, meliputi pengertian, edukatif, kuratif, preventif, rehabilitatif, dan upaya yang terkait dengan BGM, lalu membangun instrumen pada studi kuantitatif dengan informan: masyarakat (ibu balita), kader posyandu, tenaga ahli, dan penentu kebijakan di tingkat kabupaten/kota. Pada masing-masing kabupaten/kota lokasi penelitian, dilakukan diskusi kelompok fokus (FGD) masyarakat (ibu balita) dan kader Posyandu serta wawancara mendalam dengan pemangku kepentingan (*stakeholders*) di tingkat kabupaten/kota. Studi kuantitatif dilakukan untuk memperoleh variabel faktor risiko yang akan dijadikan masukan bagi model simulator BGM. Untuk memperoleh faktor risiko yang berhubungan dengan BGM, digunakan uji statistik *Chi Square* dengan derajat kepercayaan 95%. Untuk melihat kemaknaan hasil perhitungan statistik digunakan (batas kemaknaan dengan $\alpha = 0,05$). Untuk menyusun simulator, digunakan analisis faktor dan *Multivariate Logistic Regression* (MLR) yang akan mencari faktor bermakna untuk memprediksi status BGM.

Hasil menunjukkan faktor risiko yang berhubungan dengan kejadian BGM adalah asupan energi ($p\ value 0,01$), asupan protein ($p\ value 0,004$), ASI eksklusif ($p\ value 0,0001$), MP-ASI ($p\ value 0,003$), ISPA ($p\ value 0,0001$), umur balita ($p\ value 0,00001$), penimbangan balita ($p\ value 0,006$), status imunisasi ($p\ value 0,044$), pola makan ($p\ value 0,043$), pengetahuan ibu ($p\ value 0,001$) dan paritas ($p\ value 0,0001$). Adapun dari faktor risiko tersebut yang paling dominan adalah asupan energi. Probabilitas untuk terjadi BGM sebesar 97 % pada Balita yang memiliki asupan energi <80% AKG, asupan protein <80% AKG, tidak ASI



Eksklusif, tidak MP ASI, pernah menderita ISPA, umur balita $>=24$ —60 bulan, balita tidak ditimbang, status imunisasi tidak lengkap, pola makan tidak seimbang, pengetahuan ibu tidak baik, dan riwayat ibu balita multipara.

Kesimpulan penelitian ini, Simulator Permata Bunda sebagai salah satu alat surveilens gizi dan dapat digunakan oleh petugas gizi puskesmas. Saran yang diusulkan adalah Simulator Permata Bunda menjadi alat yang dapat digunakan untuk memantau pertumbuhan dan perkembangan balita ditingkat puskesmas dan desa. Oleh karena itu, manajemen yang terkait dalam penggunaan Simulator Permata Bunda di Provinsi Lampung perlu dukungan dari Kementerian Kesehatan RI dengan penerbitan regulasi ditingkat provinsi yang meliputi anggaran sosialisasi, pelatihan, dan manajemen program bersumber dari anggaran APBD provinsi, APBD kabupaten/kota dan dana BOK.

Kata Kunci: Model Simulator, Bawah Garis Merah, Bawah Lima Tahun.





ABSTRACT

RISK SIMULATOR MODEL OF RED LINE NUTRITIONED STATUS OF UNDER FIVE-YEARS OLD CHILDREN IN LAMPUNG PROVINCE



Malnutrition in early stages are shown in weight loss, in Towards Health Card (KMS) severe level of underweight will be shown as plot point in the Below Red Line (BGM). BGM condition are at risk in children's growth disorders physical, intelligence, durability and productivity and even can lead to death. KMS for under five-years-old children can not be used as a tool to predict the malnourished at under five-year-old children at an early stage due to malnutrition information can only be used after a few months. This study aims to obtain simulator model that able to predict the occurrence of BGM in under five-years-old children and alternative for interventions based on malnutrition problem in Lampung Province.

The research method using cross sectional design with quantitative and qualitative studies in Tanggamus, Tulang Bawang and Bandarlampung which represent the population of Lampung demographically, socially and culturally with a sample of 2,520 under-five-year-old children. Qualitative study to obtain feedback from informants that includes understanding, promotive, curative, preventive, rehabilitative and effort associated with BGM in constructing the instrument in a quantitative study with informants: public (mother of under the five-years-old children), posyandu, experts and policy makers at district / city level. In each district / city location research conducted Focus Group Discussion (FGD) community (Mother Under the five-years-old children) and Posyandu and depth Interviews for Policy Makers (Stakeholders) at district / city level. Quantitative studies to obtain a variable risk factors that will be used as input for the model simulator BGM. Qualitative studies to obtain input from informants that includes understanding, promotive, curative, preventive, rehabilitative and effort related to BGM in developing quantitative studies instruments. Informants consist of: public (under the five-years-old children's mother), posyandu cadres, experts and policy makers at district/city level. Focus Group Discussions (FGD) between community (under the five-years-old children's mother) and Posyandu functionary were conducted in each research location. And in-depth interviews for policy makers (stakeholders) were conducted at district/city level. Quantitative studies aim at obtaining variables on risk factors that will be used as input for the BGM simulator model.

Statistical test Chi Square with a 95% confidence level was used to obtain BGM risk factors. 0.05 borderline significance was used to find the results of statistical calculations and the significance. Factor analysis and Multivariate Logistic Regression (MLR) were used to define significant factors to predict the level of BGM which will be used to develop the BGM simulator model.



Results showed the risk factors related to the occurrence of BGM are: energy intake (p value 0.01), protein intake (p value 0.004), exclusive breastfeeding (p value 0.0001), MP-ASI (p value 0.003), ISPA (p value 0.0001), children's age (p value = 0.00001), children's weighing (p value 0.006), immunization status (p value 0.044), diet (p value 0.043), mother's knowledge of nutrition (p value 0.001) and parity (p value 0.0001). Energy intake is the most predominant risk factor. Probability of BGM occurrence is 97% in under a five-year-old children which had energy intake <80% RDA, the protein intake<80% RDA, not exclusive breastfeeding, no MP ASI, had suffered from respiratory infection, children's age $>$ = 24-60 months, children are not weighed, immunization status is incomplete, unbalanced diet, mother's knowledge of nutrition is not a good and maternal history of children's mother is multiparous. Simulator Permata Bunda as one of the tools of nutritional surveillance and could be used by Official Nutrition Health Center.

Permata Bunda Simulator as one of the tools for nutritional surveillance and can be used by nutrition health center officer. The proposed suggestion is Permata Bunda Simulator that can be used as a tool to monitor the growth and development of under five-years-old children in the village area and health center. Therefore, the use of simulator Permata Bunda in Lampung Province needs the support of the Ministry of Health and associated management. At the provincial level, the support expected is in the form of the regulations issued regarding the budget for sosialization, training and program management which is funded by the province, regency/city and BOK budget.

Keywords: Simulator Model, Below Red Line, Under-five-year-old children.