Pertumbuhan usia dini menentukan pertumbuhan hingga usia pra-pubertas (studi longitudinal IFLS 1993-1997-2000 = Early child s growth has appointed growth at pre puberty longitudinal study of IFLS 1993-1997-2000

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Abstrak

Latar Belakang: Stunting atau tumbuh pendek sudah dimulai dari kandungan ibu dengan indikasi BBLR dengan pertumbuhan dibawah kurva standar. Masa kritis pertumbuhan terjadi pada 1000 hari pertama kehidupan. Studi ini dilakukan untuk meneliti pengaruh pertumbuhan dini terhadap pertumbuhan pada usia pra-pubertas.

Metode: Disain penelitian adalah retrospektif, menggunakan data panel Indonesian Family Life Survey tahun 1993, 1997, dan 2000. Studi populasi adalah rumah tangga, mencakup 13 dari 27 provinsi yang ada pada tahun 1993 dengan keterwakilan urban-rural dan nasional. Sampel adalah anak usia 0-2 tahun pada baseline, diukur kembali pada usia 4-6 tahun dan 7-9 tahun (pra-pubertas). Data analisis dilakukan dengan metode Regresi Logistik Ganda.

Hasil: Pertumbuhan usia dini menentukan pertumbuhan usia pra-pubertas. Faktor- faktor yang berpengaruh pada pendek usia dini antara lain miskin (OR=1,78; 95%CI=1,06-2,99), tinggal di perdesaan (OR=2,92; 95%CI=1,74-4,90), sanitasi lingkungan yang buruk (OR=1,84; 95%CI=1,10-3,09). Stunting pada usia 4-6 tahun dipengaruhi oleh pendek pada usia dini (OR=3,73; 95%CI= 2,160-6,343).

Pengaruh dan pola pertumbuhan pendek (P) dan normal (N) pada usia dini (02) dan usia 4-6 tahun (46) menunjukkan, 77,1% anak 02P_46P tumbuh tetap pendek pada usia pra- pubertas (OR=27,43; 95%CI=11,68-64,43). Sebanyak 59,5% anak 02N_46P mengalami growth faltering dan menjadi pendek (OR=14,00; 95%CI=5,95-32,95). Anak yang usia 02P_46N sebanyak 84,3% tumbuh tetap normal (OR=1,48; 95%CI=0,55-4,00; p=0,441) pada usia pra-pubertas. Perbaikan pertumbuhan setelah usia dini didukung oleh adanya perbaikan ekonomi secara umum.

Faktor-faktor yang berpengaruh terhadap stunting pada usia pra-pubertas berbeda menurut disain yang digunakan dalam analisis. Analisis dengan disain cross-sectional menunjukkan, faktor yang berpengaruh terhadap stunting pada pra-pubertas adalah pendek pada usia dini, miskin, sanitasi lingkungan dan jenis kelamin; sedangkan analisis dengan disain longitudinal menunjukkan, stunting pada usia pra-pubertas secara signifikan dipengaruhi oleh pertumbuhan pada usia dini dan pola pertumbuhan antara usia dini dan pra-pubertas.

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Background: Stunting or growing short has been started in the womb of mothers, indicated by having low birth weight and grew in deviation curve. Critical window of growth taken place at first 1000 days of life. This study was conducted to investigate the influence of early growth, towards the growth of pre-puberty's period.

Method: The design of the study was retrospective, utilizing the Indonesian Family Life Survey panel data of 1993, 1997, and 2000. Study population was Indonesian households covering 13 out of 27 provinces in 1993 for the representativeness of urban-rural and national. Sampel was children age of 0-2 years old at the

baseline, followed up at age of 4-6 years and 7-9 years (pre-puberty). The method of data analysis was Multivariate Logistic Regression.

Results: Early child growth was appointed growth of pre-puberty. Factors related to stunted or short at early life was poverty (OR=1,78; 95% CI=1,06-2,99), urban settlement (OR=2,92; 95% CI=1,74-4,90), as well as poor hygiene and sanitation (OR=1,84; 95% CI=1,10-3,09). Short at age of 4-6 years is related to short at early age (OR=3,73; 95% CI= 2,160-6,343).

Early growth and growth pattern of stunted (S) and normal (N) at early age or age of 0-2 years (02) and age of 4-6 years (46) showed, 77,1% of 02S_46S stayed stunted (OR=27,43; 95%CI=11,68-64,43). As much as 59,5% of 02N_46S experienced growth faltering becoming stunted (OR=14,00; 95%CI=5,95-32,95). Children who were 02S_46N account for 84,3% growed normal (OR=1,48; 95%CI=0,55-4,00; p=0,441) at pre-puberty. Growth improvememnt of these subjects seemed supported by the economic development in general.

Factors related to pre-puberty growth differed between the methods of analysis. Cross- sectional analysis showed that factors related to pre-puberty growth were short in early age, poverty, health sanitation and sex; meanwhile longitudinal analysis of growth showed that pre-puberty growth significantly influenced by early growth and growth pattern in between the age period.

Conclusion and novelty: the growth at early age and growth pattern in between age period appointed the pre-puberty growth. Novelty of this study is stunted or short at age 0-2 and continuously short at age 4-6 year was at risk of stayed short at pre-puberty (7-9 year). In addition, grew normal at early age, but short at age 4-6 year was also at risk of stunting at pre-puberty. However, short at age 0-2, but getting normal or catch up at age of 4-6 was protective or stayed normal at pre-puberty.

Recommendation: Recommendation of this research is that a multi-center study need to be conducted at the pocket areas of NTT and Papua so that problems related specific solution can be done to prevent stunting. Efforts in stunting intervention should be focused at first 1000 days of life, and if necessary be followed up until age of five years. The implementation of standard operational procedure of mother's and baby's cohorts as well as KIA's book should be strengthened. In addition, law enforcement of those procedure should be complemented with structured trainings of the midwives as a capital of a valid data that can be used to study growth in relation to degenerative diseases in the future. Intergrated programs with other sectors should be conducted hands in hands to reduce stunting through community empowerment as well as households income's generation.