# Residential Density, Parents' Sexual Activity and Teenage Sexual Behavior in Yogyakarta

# Kepadatan Hunian, Aktifitas Seksual Orang Tua dan Perilaku Seksual Remaja di Yogyakarta

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#### **Abstract**

In dense and slum areas, parents often have to share bedroom with their children, so the children have been exposed to sexual activity since early. This study aimed to determine residential density, parents' sexual activity and its effects to teenage sexual behavior in Yogyakarta. This study used cross-sectional design by interviewing 268 families that had teenagers as selected randomly in urban slum areas and rural areas on March - May 2015. Data was analyzed using chi-square test and multivariate cox-regression. Results showed that parents living in dense residence had risk two times higher to commit sexual activity which had negative effect on their children. Parents' sexual activity did not have any influence to risky sexual behavior among teenagers. Factors significantly related to risky sexual behavior among teenagers are male sex, negative attitude and influence of peers. Health agency and primary health care should improve counseling programs for teenagers and train peer counselors. Activities which have been conducted at schools should be expanded to risky areas, such as urban slum area with high density of residence.

**Keywords:** Residence density, parents' sexual activity, teenage sexual behavior

# **Abstrak**

Pada daerah kumuh dan padat, orangtua sering terpaksa harus berbagi ruang tidur dengan anak-anaknya sehingga anak-anaknya sudah terpapar dengan aktivitas seksual sejak dini. Penelitian ini bertujuan mengetahui kepadatan hunian, aktivitas seksual orangtua, dan efeknya terhadap perlaku seksual remaja di Yogyakarta. Penelitian ini menggunakan desain potong lintang dengan mewawancarai 268 keluarga yang memiliki anak remaja yang dipilih secara acak di daerah kumuh perkotaan dan daerah pedesaan pada bulan Maret – Mei 2015. Analisis data dilakukan menggunakan uji kai kuadrat dan regresi-cox multivariat. Hasil penelitian ini me-

nunjukkan bahwa orangtua yang tinggal di hunian padat memiliki risiko dua kali lebih besar untuk melakukan aktivitas seksual yang berdampak negatif bagi anaknya. Aktivitas seksual orangtua tidak berpengaruh terhadap perilaku seksual berisiko pada remaja. Faktor yang berhubungan bermakna dengan perilaku seksual berisiko pada remaja adalah jenis kelamin laki-laki, sikap negatif, dan pengaruh teman sebaya. Dinas kesehatan dan puskesmas agar terus meningkatkan program penyuluhan remaja dan melatih konselor teman sebaya. Kegiatan yang selama ini telah dilakukan di sekolah sebaiknya diperluas pada daerah berisiko seperti daerah kumuh perkotaan dengan kepadatan hunian yang tinggi.

**Kata kunci**: Kepadatan hunian, aktivitas seksual orangtua, perilaku seksual remaja

#### Introduction

Development of residential environment in urban area cannot be separated from a rapid rate of population growth due to both naturally population growth factor and urbanization process. Population growth and limited land in urban area cause the increase of small tenements traded and rented to newcomers. Such small tenements then develop into dense and slum area.<sup>1</sup>

In Indonesia, slum residence up to the year 2000 reached 47,000 hectare. Based on data from Yogyakarta Public Works, Housing, Energy and Mineral Resources Agency in 2014, there were 400 hectare slum area in Yogyakarta. The largest slum area was in Yogyakarta City

Correspondence: Luluk Rosida, Aisyiyah Yogyakarta School of Health Sciences, West Ringroad 63 street Mlangi Nogotirto Gamping, Sleman 55292, Phone: +6281578482820, e-mail: lulurosida@yahoo.co.id (278.7 hectare) then followed by Sleman District (41.4 hectare), Bantul District (27.3 hectare) and the rest were in Kulonprogo District and Gunungkidul District.<sup>2</sup>

Area with high residential density, crowded housing condition and no partition between rooms affect on sexuality life not only related to parents' sexual activity, but also related to their teenagers' sexual behavior. Study concerning sexual behavior of community in urban dense and slum area in Kenya recorded that narrow living condition around urban dense and slum area really limited privacy of every family member. Parents often had to share bedroom with their children, so the children had been exposed to sexual activity since early. Furthermore, exposure of parents' sexual activity at very young age may weaken children's control when adult related to their sexual behavior. Space problem may also force teenagers to go outside house and lose parents' control, so they have a risk to get involved in risky sexual behavior outside house.<sup>3</sup>

Teenagers' health is mostly determined by their behavior.<sup>4</sup> The important and complex matter related to teenage health behavior is sexuality problem that may influence teenage morbidity and mortality.<sup>5</sup> Several studies concerning on teenage behavior in both developing and developed countries showed that some teenagers had committed premarital sexual intercourse. Study conducted by Rahyani, et al,6 concerning teenage sexual behavior in Bali showed almost 15% of respondents in early survey admitted that they were ever forced or seduced by their own partner to commit premarital sexual intercourse (data was not presented). As many as 29 respondents (4.26%) admitted that they had committed sexual intercourse with their own partner within a recent year (1.44% female teenagers and 3.19% male teenagers). Kabiru observed transition of first time sexual intercourse committed by teenagers between those living in slum area and non-slum area in which the results showed that teenagers living in slum area were two to three years vounger committing sexual intercourse for the first time than those living in non-slum area. Based on such case, this study aimed to determine residential density, parents' sexual activity and its effects to teenage sexual behavior in Yogyakarta.

# Method

This study was quantitative study with cross-sectional design. Population of study was parents and teenagers of urban slum area in Tegal Panggung Subdistrict and rural area in Bangunjiwo Subdistrict, Yogyakarta. Minimum sample was calculated based on formula of hypothesis test determining two proportions by using confidence interval (CI) 95% and the test power 90% as well as difference between proportions going to be tested was 15%, which needed 120 respondents per group. Inclusion cri-

teria were 15-21 year-old teenagers (male or female) living with their parents. Samples were selected gradually through randomly selecting 15 neighborhood heads in every subdistrict, then collecting data of family (family heads who had 15-21 year-old teenagers). After that, 10 respondents in every neighborhood were selected randomly. Samples having complete data in this study were amounted to 134 families in urban slum area and 134 families in rural area.

Residential density is measured by comparing a number of people living together in a house with the house size, then categorized into two namely high residential density if less than eight meter square per resident and low residential density if every resident has space of eight meter square or more. Sexual activity of husband and wife affecting on teen development is categorized into sexual activity which has negative effects if fulfilling two of five conditions following 1) parents do not have a private room, 2) not only sleeping with husband/wife, 3) possible for other people to see at the time of sexual intercourse, 4) feeling ever seen by other people who live together in the same house at the time of sexual intercourse, or 5) ever seen by children at the time of sexual intercourse.

Teenage sexual behavior is activity committed by teenagers to fulfill sexual urge to the opposite sex through any behavior, which is divided into two categories namely high risky sexual behavior that covers lip-kissing, touching sensitive parts of body (breasts and genital), swiping or attaching genital, or sexual intercourse. Meanwhile, low risky sexual behavior covers holding hands, embracing, hugging, or short kissing (lips-cheeks, lips-foreheads, lips-lips).

This study used primary data that was interview using structured questionnaire with parents and questionnaire filled by teenagers. Questionnaire used in this study was adopted from teenage behavior questionnaire of Indonesia Demographic and Health Survey 2012 as combined with several questionnaires in other studies with the same topic. Data analysis was conducted using chisquare test and multivariate cox-regression test.

# Results

Results of study showed 47% parents had sexual activity which had negative effect for teenagers. Parents who did not have any closed private room were 31.7%, 35% not only two (husband and wife) sleeping, 14.6% possible for other people living together in the same house to see at the time of sexual intercourse, even 4.9% parents felt ever seen by other people at the time of sexual intercourse. Meanwhile, teenagers ever seeing their parents having sexual intercourse was worth 4.5%.

Based on Table 1, parents' sexual activity that had negative effect on their teenagers occurred more among

Table 1. Distribution of Parents' Sexual Activity According to Residential Density	, Domicile Area, Family Head's Age, Family Head's Work and Family Head's
Education Level	

Variable Category Effect on Teenagers		Parents' Sexual Activity						
	2 .	Not Having Negative Effect on Teenagers		Having Negative		Total	PR (95% CI)	p value
	N	%	N	%				
Residential density	Low residential density	142	79.8	36	20.2	178	1.46	< 0.001
	High residential density	49	54.4	41	45.6	90	(1.19-1.79)	
Domicile area	Rural area	113	84.3	21	15.7	134	1.41	< 0.001
	Urban slum area	78	58.2	56	41.8	134	(1.18-1.72)	
Age	Non-reproductive (> 40 years old)	106	72.6	40	27.4	146	1.15	0.695
	Productive (20 – 40 years old)	85	69.7	37	30.3	122	(0.68-1.96	
Work	Employed	171	72.5	65	27.5	236	1.15	0.337
	Unemployed	20	62.5	12	37.5	32	(0.87-1.53)	
Education level	Middle/high (≥ senior high school)	76	70.4	32	29.6	108	0.97	0.897
	Low (≤ junior high school)	115	71.9	45	28.1	160	(0.83-1.14)	

Table 2. Results of Multiple Logistic Regression Analysis of Factors Related to Parents' Sexual Activity Having Negative Effect on Teenagers

Variable	В	SE	p value	PR	95% CI
High residential density Urban slum area domicile					1.19 – 3.79 0.91 – 2.59

families living in house with high residential density, occurred more among families in urban slum area and families whose family heads were unemployed.

According to Table 2, multivariate logistic regression analysis showed variables having significant relation to parents' sexual activity which had negative effect on teenagers were high residential density and living in urban slum area. Parents living in dense house had risk two times higher to commit sexual activity which had negative effect on their teenagers. Parents living in urban slum area had risk 1.5 times higher to commit sexual activity which had negative effect on their teenagers.

Worth 75.7% teenagers ever had partners (boyfriend/girlfriend) and the youngest age of first time dating was nine years old and the oldest was 19 years old. 17.2% teenagers started dating at the age of 15 years and 13.4% at the age of 16 years. 11.6% teenagers had high risky sexual behaviors that were lip-kissing (10.4%), touching or touched sensitive parts of body (breasts, thighs, genital) (8.6%), swiping or attaching genital (4.5%) and sexual intercourse (5.2%). Worth 88.4% teenagers had low risky sexual behaviors that were holding hands (83.6%), embracing (53%), hugging (30%) to short kissing (lips-cheeks/lips-foreheads/lips-lips) (23.5%).

High risky teenage sexual behavior occurred more among teenagers living in area with high residential density, on parents' sexual activity that had negative effect, male sex, teenagers negatively affected by peers, teenagers having negative attitude to sexuality and among teenagers who were not exposed to media of information. Results of chi-square test found statistically significant relation with p value less than 0.05 (Table 3).

Results of multivariate logistic regression analysis (Table 4) showed that residential density and parents' sexual activity did not have any significant relation to risky sexual behavior among teenagers after controlled by variables on teenagers that were peers, attitude and sex. Factors which had significant relation to risky sexual behavior were any influence of peers (PR 2.6), negative attitude to sexuality (PR 2.3) and male sex (PR 4.9) that had higher risk to have risky sexual behavior.

#### Discussion

Topic of this study was sensitive, therefore dishonesty of respondents, both parents and teenagers, while filling questionnaire was quite high. This study had tried to minimalize possibility of respondents' dishonesty by convincing them that questionnaire was kept confidential. Respondents did not need to write down their names, also closed envelops were provided for questionnaire already filled by respondents in order to make them convinced of its confidentiality.

Results of this study proved any influence of residential density with parents' sexual activity. Parents living in dense house had risk two times higher to commit sexual activity which had negative effect on their children than those whose residential density was low. The result of this study was in line with another study concerning relation between urban poverty and sexual behavior by using data of demographic and health survey from African five cities namely Accra (Ghana), Dar-es-Salaam (Tanzania), Harare (Zimbabwe), Kampala (Uganda) and Nairobi (Kenya). Even though risky behavior was quite various in those five cities, people living in dense and slum area showed more risky sexual behavior than people not living in dense and slum area.<sup>3</sup> In this study, high risky

Table 3. Distribution of Teenage Sexual Behavior Based on Residential Density, Sex, Role of Peers, Knowledge Level, Attitude to Sexuality, Media of Information, Religiosity Level, Parents' Sexual Activity and Domicile Area

Variable	Category	Teenage Sexual Behavior						
		Low Risk		High Risk		Total	PR (95% CI)	p value
		n	%	n	%			
Residential density	Low residential density	161	90.4	17	9.6	178	1.07	0.212
	High residential density	76	84.4	14	15.6	90	(0.96-1.18)	
Parents' sexual activity	Not having negative effect	175	91.6	16	8.4	191	1.13	0.018
	Having negative effect	62	80.5	15	19.5	77	(1.01-1.28)	
Sex	Female	135	97.1	4	2.9	139	1.22	< 0.000
	Male	102	79.1	27	20.9	129	(1.11-1.34)	
Role of peers	Not affected (positive)	197	92.9	15	7.1	212	1.30	< 0.000
	Affected (negative)	40	71.4	16	28.6	56	(1.19-1.54)	
Knowledge level	High knowledge	156	87.6	22	12.4	178	0.97	0.713
	Low knowledge	81	90.0	9	10.0	90	(0.89-1.06)	
Attitude to sexuality	Positive attitude	174	94.6	10	5.42	184	1.26	< 0.000
	Negative attitude	63	75.0	21	5.0	84	(1.10-1.43)	
Media of information	Exposed to media	207	90.8	21	9.2	228	1.21	0.039
	Not exposed to media	30	75.0	10	25.0	40	(1.10-1.43)	
Religiosity level	High religiosity	177	88.1	24	11.9	67	0.98	0.912
	Low religiosity	60	89.6	7	10.4	201	(0.89-1.08)	
Area	Rural area	122	91.0	12	9.0	134	1.06	0.181
	Urban slum area	115	85.8	19	14.2	134	(0.97-1.15)	

Table 4. Results of Multivariate Logistic Regression Analysis of Factors Related to Risky Sexual Behavior among Teenagers

Variable	В	SE	p value	PR	95% CI
High residential density	0.089	0.394	0.821	1.09	0.51- 2.37
Parents' sexual activity having negative effect	0.327	0.405	0.420	1.39	0.63-3.07
Negative influence of peers	0.980	0.372	0.008	2.66	1.28-5.52
Negatif attitude to sexual behavior	0.836	0.419	0.046	2.31	1.02-5.24
Male sex	1.596	0.548	0.004	4.94	1.69-14.45

teenage sexual behavior was higher in area with high residential density (15.6%) than teenagers in low residential density (9.6%).

Results of this study also proved any influence of domicile area with parents' sexual activity. Parents living in urban slum area had risk 1.5 times higher to commit sexual activity which had negative effect on their children than parents living in rural area. This finding was in line with study in African five cities stating that people living in urban area showed more risky sexual behavior than people living in rural area. Then the results of study also showed that parents' sexual activity, whether having negative effect on their children or not, was not only related to their age, education and work, but such sexual activity that had negative effect on their children was more due to influence of residential density they were living in and their domicile area in urban slum area.

Dense and slum residence in urban area causes parents and children have to sleep crammed in the same space because of no room around, which makes parents' sexual activity that has negative effect on children possible to happen. Study in Kenya had noted that condition of living narrow in urban dense and slum area really li-

mited privacy of every family member. Parents were often forced to share bedroom with children, therefore the children were already exposed to sexual activity since early. Furthermore, exposure of parents' sexual activity at the very young age may weaken children's control when adult related to their sexual behavior.<sup>3</sup>

Multivariate analysis in this study showed no significant relation between residential density with teenage sexual behavior, although there was a tendency that teenagers in dense residence had higher risk to commit risky sexual behavior. This result was slightly different with another study showing any significant relation, teenagers living in dense area had higher risk to commit risky sexual behavior than teenagers not living in dense area, transition of first time having sex among teenagers living in slum area was two to three years younger to commit first time having sex than teenagers living in nonslum area.<sup>6</sup> This difference may occur due to any difference of way and method of measurement, the low risky sexual behavior, or because some questions related to sexual behavior were considered sensitive by Javanese people, therefore dishonesty of respondents while answering may still occur.

Teenage sexual behavior is influenced more by other

factors, such as sex in which teenage males have risk five times higher to commit risky sexual behavior than teenage females. Influence of sex is very strong in determining attitude to premarital sexual intercourse in which teenage males tend to be more permissive and more able to accept premarital sexual intercourse than teenage females.<sup>8,9</sup> Prior study conducted by Rosdani *et al*, <sup>10</sup> stated that male sex behaved more permissive or opened to sexual intercourse than the female.

Peer is also an important factor in influencing the occurrence of risky sexual behavior among teenagers. Teenagers having peers committing sexual intercourse had risk 2.66 times higher to commit risky sexual behavior. This case occurred because peer group bond could replace family bond, be source of affection, sympathy and caring, sharing experience to each other and be a place for teenagers to look for autonomy and independence. 10,11

Attitude to sexuality is another important factor influencing risky sexual behavior among teenagers. Teenagers who had permissive attitude to sexuality had risk 2.31 times higher to commit risky sexual behavior than teenagers who had positive attitude to sexuality. Attitude is predesposition factor very related to a person's behavior. Attitude is a syndrome or a set of symptoms in responding to an object. 12-15 This study is in line with study conducted in India finding that permissive attitude to sexuality was the important risk factor to do sexual activity earlier. 16 As well as study in Africa conducted to 247 student participants showing that premarital sexual behavior committed by a woman was unacceptable case. African women would get attitude, negative reaction and punishment if they did not maintain their virginity.17

Role of mass media is one of factors influencing risky sexual behavior among teenagers. Teenagers not exposed to media of information properly concerning sexuality had higher risk to commit risky sexual behavior than teenagers exposed to media of information properly concerning sexuality, although not significant in multivariate analysis. According to psychologist, sex education is mostly received from mass media worth 58.8%, however, most mass media provide improper information concerning sex education. This statement of psychologist was proven by researcher from North Caroline stating that teenagers who mostly got sexual urge from media tend to commit sexual intercourse at the age of 14 to 16 years 2.2 times higher than other teenagers less seeing sex exploitation from media. 18-20

Results of this study also showed that knowledge variable did not relate to risky sexual behavior among teenagers. This may occur because teenagers who felt they knew enough precisely dared to commit risky sexual behavior. Another possibility was that knowledge of

teenagers in this study only 'know it', their understanding of sexuality in more detailed was not deeply asked. So that, although their knowledge concerning sexuality looked quite good, teenagers kept committing risky behavior.

Although there was a tendency in which parents' sexual activity that had negative effect had higher risk of risky sexual behavior among their teenagers, but it was statistically not significant. This finding is in line with conveyed by another researcher stating that a person's sexual behavior was not related to his/her parents or family, but more related to behavior nor sayings of parents that became the real model for children. In this case, the most powerful environment is nuclear family. Future of children whether failed or not is also influenced by family.<sup>21</sup>

Religiosity level was also a variable not related to teenage sexual behavior in this study. This may occur because questions of religiosity in questionnaire was very normative, so such questions were generally answered 'good' by most respondents. Interview questionnaire in this study could not see respondents' religiosity in daily practice. A person's religiosity only could be seen through observation of his/her ability in understanding, living up and implementing norms of his/her religion through attitude and behavior of his/her daily life.

Domicile area was also the factor not related to teenage sexual behavior in multivariate analysis. This proved that high risky sexual behavior among teenagers was not caused by difference of domicile (urban – rural), but exposure of peers and negative attitude of teenagers themselves. The result of this study was slightly different with another study which found any difference of sexual behavior between people living in slum area and people living in non-slum area in Nairobi City. Results of the study in Nairobi showed that people in slum area started to commit sexual intercourse at the earlier age had more sexual partners and be less active to determine or take preventive ways from HIV/AIDS transmission. 6,22

# Conclusion

There is a relation between residential density and sexual activity. Parents living in dense house have risk two times higher to commit sexual activity that has negative effect on their teenagers. Parents living in urban slum area have risk 1.5 times higher to commit sexual activity that has negative effect for their teenagers. There is a tendency among teenagers who live in dense house or urban slum area having bigger risk to have risky sexual behavior, but it is statistically not significant. Factors having significant relation with the high risky teenage sexual behavior are male sex, negative attitude to sexual behavior and negative influence from peers.

#### Recommendation

For health agency and primary health care around such area, counseling programs for teenagers and training peer group counselors which along this time are only implemented in schools should also be implemented in risky regions, such as urban area, especially high residential density. Government, village/subdistrict and nongovernmental organization (NGO) should more apply establishment, activation and development of any teenagers' association existing in community.

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