Beginning the Thai Family Matters Project: An Areal Analysis of Bad Neighborhoods and Adolescents' Problematic Behaviours in Thailand

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Abstract

Under the Thai Family Matters program initiative, this study investigates an association between neighborhood characteristics and problematic behaviors including alcohol and drug use, and sexual and delinquent behaviors among Thai adolescents. Data were derived from 420 families whose children aged 13-14 were selected from 30,471 households enumerated and listed from 245 blocks in seven districts in Bangkok Metropolis including Min Buri, Pathum Wan, Bangkok Noi, Bang Kho Laem, Sai Mai, Wang Thonglang and Suan Luang. Probability Proportional to Size method (PPS) was used in the sample selection process. Interviews were conducted with one parent and one adolescent in each household. Areal analysis shows that adolescents' problematic behaviors are significantly related to the districts where they live as well as the bad neighborhood characteristics that they reported. The study confirmed that any micro - level family program to prevent or correct problematic behaviors of adolescents need to also take into account the macro - level approach to manage the difficult neighborhoods as well as to deal with the bad environment in the broader areas of Bangkok Metropolis where the adolescents live.

Keywords

adolescent; drug; sexual behaviour; neighborhoods; Thailand; delinquency; family; alcohol use

Overview

Thailand is undergoing a period of rapid societal change. There are many indications of this change across a range of socio-economic factors. Perhaps one of the most telling is that this year, for the first time in history, Thailand became a country in which over 50 percent of the population lives in urban settings (Prasartkul, Pramote, Sureeporn Punpuing and Patama Vapattanavong, 2007). With this shift come a number of implications, especially for families.

For example, a greater value is now placed on material goods as opposed to relationships. Young people have more unsupervised time and the influence of peer groups is increased (Chamratrithirong, et al., 2007). In addition, young people are exposed to a variety of media channels which present mixed messages about appropriate behaviours. Finally, by moving to urban settings, families often lose the support of extended families and other informal networks of support, thus placing a great burden on parents to provide the necessary guidance and structure to raise their children in a safe and healthy environment. As a result, several major risk behaviours among adolescents in Bangkok have been recently increasing in prevalence; and among the various key factors which underlying these risks, parental status and behaviour as well as peer influences are found to be especially significant (Ruangkanchanasetr, et al., 2005).

In addition to these broad social changes, two areas of specific - and related - concern are HIV/ AIDS and alcohol/other drug use. In the case of HIV/AIDS, recent reports from Thailand show that after the early successes of a HIV/AIDS condom campaign, there is increasing evidence of risky sexual behaviours, declining condom use, and potentially increasing HIV rates (Crispin, 2004; Allen et al., 2003). In particular, in a time series study from 1996 to 2003, Thailand Ministry of Public Health (2004) found that among Thais 15 to 20 years old, their past 12-month sexual experiences have increased 2% to 3% annually since 2000. Additionally, a cross-sectional study conducted at eight randomly selected schools among 425 youth aged 18 to 22 years in Thailand revealed that 23% were STD-positive; 50% were sexually experienced, of whom only 6% had used condoms for new sexual partners; and 10% had used condoms during recent sexual encounters (Thato et al., 2003). Also, in a study of younger adolescents (aged 12 to 18), the 2001 Bangkok Youth Risk Behaviour Survey found that, of the 10% reporting ever had sex and 70% had never used a condom (Ruangkanchanasetr et al., 2005).

With regards to alcohol use *The 2001 Bangkok Youth Risk Behaviour Survey* found that, of the 37% of adolescents (mean age 15.5 years) who had ever used alcohol, 56.1% were frequent drinkers (Ruangkanchanasetr et al., 2005). Findings from a behavioural-based sentinel surveillance conducted among high school and vocational students in 2003 indicated that 76.1% (628) of males and 61.6% (533) of females reported consuming alcohol occasionally and socially (Keiwkarnka et al., 2003).

Furthermore, evidence suggests an association between alcohol use and risky sexual behaviours exists (Thato et al., 2003; Allen et al., 2003); yet there are few behavioural-driven interventions, especially family-based interventions, targeting both alcohol use and risky sexual behaviours among young Thais (Allen et al., 2003; Thato et al., 2003).

Background and Objectives of the Family Matters Project in Thailand

In order to address these critical issues, a research project was developed and is currently being implemented in Thailand by a consortium of Thai and US organizations. The project has three specific aims: (1) to assess the relative importance of a U.S.-derived risk and protective factor theoretical model to the Thai culture; (2) to adapt *Family Matters* (a US-based prevention program that seeks to reduce risky behaviours among youth by improving communications among parents and adolescents) for use by Thai families with youth 12 to 14 years old; and (3) to pilot test *Family Matters* in Thailand using a randomized control group design with a six-month follow-up assessment. The assessment will also will examine the short-term effects of the program on alcohol use and risky sexual behaviours.

The *Thai Family Matters* program consisted of mailing five booklets to parents with subsequent telephone contacts by a health educator. Each booklet addresses a key aspect of strengthening families as well as protecting young people from unhealthy behaviours related to drug use and

sexual activity. Issues addressed include improving family communications; establishing rules; engaging in family activities; and discussing health-related issues among family members. As the families complete each booklet, a health educator calls to discuss their experience; provide additional information; and ensure that they are ready to proceed to the next set of materials.

A Family Survey to Explore the Bad Neighborhood and Prevalence of Problematic Behaviours

At the start of the *Thai Family Matter*s Project in 2006, a family survey of parents and adolescents in Thailand was considered an important first step so a baseline survey was developed during 2006 and the first half of 2007. The survey was titled Family Survey of Parents and Adolescents in Bangkok Metropolitan Area (2007). The survey was then pre-tested in May - June 2007 and subsequently carried out during the months of June and July, 2007. The survey was administered to a household representative sample of parents and adolescents aged 13-14 in the Bangkok metropolitan area. Bangkok was chosen to be the study site because of the rapidly changing environments and lifestyles of the city's population. The method of data collection was direct interview with the parents, and interviews with the help of ACASI laptops in the cases of the adolescents surveyed. The purpose of the survey was to explore in the Thai context the prevalence of family traditions and value systems. A particular focus was placed on family's relations and practices in the area of parenting styles in response to the threatening neighborhood and the adolescents' problematic behaviours.

Of the many topics explored by the Family Survey of Parents and Adolescents in Bangkok Metropolitan Area two key areas stood out as the most critical factors to consider at this time. One was the neighborhood characteristics of the areas around the households; a second was the prevalence of problematic behaviours related to sexual behaviour and alcohol and drug use among the adolescents. These subject matters are major concerns of the *Thai Family Matters Project* and thus are closely examined here.

The Sampling Design

The sampling frame of Family Survey of Parents and Adolescents in Bangkok Metropolitan Area (2007) was primarily based on the former *Bangkok Metropolitan Administration* (BMA) that divided districts into three areas or zones (inner, middle, and outer zones). The numbers of BMA Districts distributed by zone are 10, 27 and 13 in the inner, middle and outer zones respectively.

The population in each BMA District (at the end of 2006) was available from the Central Registration Bureau of the Department of Provincial Administration, Ministry of Interior, and was employed as the survey sampling frame. First of all, in order to have the three areas or zones representing their number of population in proportion to their size, the number of districts to be sampled from each of the three areas or zones was calculated. Since the population of the inner zone, the middle zone and the outer zone are 14.7%, 56.1% and 29.2% respectively, one district was selected from the inner zone; four were selected from middle zone; and two were selected from the outer zone.

As for the selection of districts from each of the three zones, the probability proportional to size (PPS) sampling method (with case multiplication technique) was used. As a result, the seven districts from the three zones are selected as listed below. The "blocks" generated within the enumeration district (ED), in each of the seven districts being available at the *Thailand National Statistic Office* (NSO), were used as the sampling frame. Numbers of blocks in each of the seven districts are shown in the above table. For each district, 35 blocks were selected using the PPS method of selection. A total of 245 blocks (35 blocks × 7 districts) was selected.

As a consequence, about 4,000 households in each district, or a total of 30,471 households in all seven districts were targeted households. The activity of block sampling selection was carried out by NSO upon request from Mahidol University research team. The team was also provided by NSO with 245 ED maps of these 245 blocks. The data collection teams was sent out to conduct household census and listings in each of those 245 blocks, including identifying qualified households (with children aged 13-14 years old) as well as making initial interview and request of household members for their willingness to participate in the study. Percent of willingness varies by district ranging from 83 percent in Sai Mai to 100 percent in Pathum Wan.

Zone	Districts	Total Blocks	Number of Blocks Selected
Inner Zone	Pathum Wan	148	35
Middle Zone	Bangkok Noi	364	35
	Bang Kho Laem	265	35
	Wang Thonglang	541	35
	Suan Luang	522	35
Outer Zone	Sai Mai	426	35
	Min Buri	331	35

Sixty households per district (420 households total) were randomly sampled to be interviewed. In most instances, mothers were the family member who was interviewed, for the parent interview, except for some households where fathers were interviewed. Only one child per household who was 13-14 years old was interviewed. In the case of households that had more than one child of this specific age range, the one having his/her birthday closest to the date of interview was selected.

As a consequence of the sample design mentioned above, seven districts in BMA are selected namely, Pathum Wan from the inner zone or nucleus of BMA where population density is the highest, Bangkok Noi, Bang Kho Laem, Suan Luang and Wang Thonglang from the middle zone of BMA where population density is moderate, and Min Buri and Sai Mai from the outer zone of BMA, where the population is the most sparsely distributed.

The seven districts selected also truly represent Bangkok where people are relatively not very poor. The sample covers the areas where percent poor people are under three percent in the cases of Min Buri, Sai Mai, Suan Luang and Bang Kho Laem, and where percent poor people ranges only from three to less than six percent as in the cases of Pathum Wan, Bangkok Noi and Wang Thonglang. No districts selected have percentage of poor people of six percent or more. The study sampled population therefore truly reflects the majority of BMA's population where the probably very poor areas are only the minority.

From the observation of the field workers or the interviewers of the family survey, the seven districts are considered to be consistently diverse in their environment status. Pathum Wan District, being in the inner zone of BMA, is unsurprisingly characterized by commercial buildings or shops and stores. Slum areas are only sparsely seen. For the four districts in the middle zone, all of them are mixture of slum areas and other housing style including either predominantly commercial shops, single houses or townhouses. In Suan Laung, some land plots are still vacant or brush areas. For the outer zone, the two districts included in the survey

are different. Min Buri was observed to be most predominantly having a slum area environment. Other land areas in Min Buri are mostly canals, or brush areas and are only sparsely populated. But in Sai Mai, the majority of areas are single house and townhouses. Only some slum area housing is found scarcely along the canal. As for the community collaboration with the interview team, in general, the data collection process was notably collaborative in the slum areas while the opposite is true for the single houses or townhouses.

Bad Neighborhood: Perception of the Parents

In this study, a series of questions were asked to the respondents to better understand their perspectives and judgments regarding the characteristics of their neighborhood. Slightly 30 questions on neighborhood problems were cited to respondents who then review the severity or seriousness of those problems in their neighborhood, rating each on a scale of 1 to 4. For example, questions were asked regarding the magnitude of rundown or abandoned areas; the safety of the neighborhood; the prevalence of major and minor crimes; and the impact of drug use and sexual activity related problems.

According to factor analysis of these neighborhood questions, it was revealed that, as far as parents are concerned, five factors are distinctively important in assessing the neighborhood problems in their areas of residence (Table 1). These factors include:

1. The threat of unsafe neighborhood

This factor includes the assessment of the bad neighborhoods related to the issue of police not caring about their problems; polices not being available; or city officials ignoring problems. Other issues are that were cited included neighborhoods being unsafe to be alone at night; groups of teenagers hanging out in public places making a nuisance of themselves; prevalence of pickpockets and being accosted on the street for money; incidence of drive-by shootings; having poor schools; transport not being available; prevalence of unsupervised children; and occurrence of people fighting.

2. The extent of abandon, rundown and gang areas

This factor includes the assessment of issues regarding the prevalence of rundown and poorly kept building and yards; abandoned houses and buildings; having organized crime or "mafia"; prevalence of prostitution and sex workers; incidence of sexual assaults; and rapes. Other issues are prevalence of selling of stolen goods; people living on the street; and the existing of gangs.

3. The problems of drug and gambling areas

This factor focuses on drug and gambling and included the assessment of neighborhoods that shelter people and young people who are using drugs or who are drunk; drug use or drug dealing in open; or houses known for selling drugs or using drugs. Other issues considered for this component were the incidence of illegal gambling as well as burglaries and thefts.

4. The prevalence of sexual behaviour related problems

This factor addresses the topics of particular neighborhoods in which groups of young people hang around and/or visiting bars and discos. It also took into account the prevalence of pregnant teenagers.

5. The magnitude of theft areas

The last factor or component reflects the neighborhood where there are high unemployment and many people being out of work, where there is vandalism, and where building and personal belongings being broken or torn up. The factor also includes the fact that in the neighborhood

there are little respect for rules, laws and authority and that it is unsafe being on the streets even during the day.

From this factor analysis (Table 1), the five factors which emerged from the study were conceptualized into two groups of components related to this study. The first grouping deals with the three neighborhood threats considered as external from the point of view of the parents. These three related environment pressures which caused parents concern related to heath and safety of their adolescents are components 1, 2 and 5. These include the threat of unsafe neighborhood; the extent of abandon, rundown and gang surroundings; and the magnitude of theft quarters. Regarding second grouping of factors, in this study it was revealed that parents are worried about key internal factors which also impact their teens' behaviours regarding drug and sexual behaviour. In this regard, factors 3 and 4 are concerned. In factor 3, the environmental problems of drug and gambling areas were cited; parents also expressed concern regarding young people and others who are using drugs or who are drunk; drug use or drug dealer in open; houses known for selling drug or drug sales or use; illegal gambling; and burglaries and thefts. Regarding the prevalence of sexual activity related problems, component 4 is extremely relevant. Parents focus on the extent to which group of young people who are hanging around and/or visiting bars and discos as well as the magnitude of teenager pregnancy in the neighborhood.

From these empirical evidences, it is important to note that parents make clear distinctions between the issues of external neighborhood safety, and drug and sex problem. Whether or not parents are aware of the probably of potential problems of their teens related to drugs and sex is unclear. It is clears that this is an area that needs more investigated. It is encouraging that at least parents can identify and single out these five neighborhood problems. As a consequence, they may be more prepared to respond to these threats effectively.

Bad Neighborhood Characteristics across the Seven Districts under Study

The five factors of bad neighborhood characteristics identified by the study's parent participants (using the full 31 question instrument) were further investigated across the seven districts under this study. Table 2 presents the means of the five factors resulted from the factor analysis presented in Table 1, across the seven districts. The distinct high scores reflecting the severity of the neighborhood problems among the seven districts are highlighted in the Table.

It is revealed that Pratum Wan which is situated in the inner zone is characterized by the highest problem of abandoned, rundown and gang areas. Sexual behavioural problem are also among the highest of the seven districts. Among the four districts in the middle zone, Suan Laung is characterized by high levels, if not the highest levels, of unsafe neighborhoods and prevalence of drug problems. To a certain extent, Wang Thonglang also appears to be a theft area. As for the outer zone, it is striking to observe that Min Buri is probably the worst district. The district ranks the highest in up to four dimensions of bad neighborhoods. Min Buri is the most unsafe place; the worst drug and gambling area; distinctively theft quarters; and neighborhood with highest sexual behaviour related problems. The other three districts not mentioned here are revealed to be, in general, good neighborhood localities.

It should be noted that the consistency of the neighborhood data relating to the five factors revealed from the empirical evidences here is very impressive. The further study of these five factors will probably be very logical. The constant pattern of bad neighborhood in Min Buri, for example, will be further investigated here in relation to subsequent adolescents' behaviour.

Problematic Behaviours of the Adolescents

In this section the problematic behaviours related to sexual related issues and drug use problems will be investigated. The data are collected from the adolescents who were instructed to use ACASI laptop computer to answer these sensitive questions. Table 3 shows the problematic behaviours of the adolescents related to sexual behaviour and drug use, across the seven districts. The information on sexual behaviour include measure of intention of sexual relationship, and the score of pre-sexual behaviour which is derived from 9 questions related to activities that may reflect the adolescents' propensity to have sex. As for drug use and delinquency, the adolescents were asked whether they have used alcohol, tobacco or other drugs, and whether they have been involved in serious delinquency.

It is revealed in Table 3 that in relation to problematic sexual behaviour, adolescents in the seven districts are quite diverse. The extent of adolescents who had sex intention early on (in the next 6 months) are higher in certain districts than the others. Sai Mai, Bang Kho Laem, Pathum Wan and Suan Laung rank among the highest. Pre-sexual behaviour index also vary across these districts. Prathum Wan, Suan Laung, Wang Thonglang and Sai Mai had the distinctively highest scores of sexual inclination. The rest of the districts are characterized by a clearly lower level of problematic sexual behaviour.

As for drug use, which include the consumption of alcohol, tobacco and/or other drug (ATOD), unfortunately, as high as slightly over one-fourth of the adolescents had experienced these behaviours (Table 3). Wang Thonglang, Sai Mai and Prathum Wan are the districts that have the highest percentage of ATOD use. Other districts are characterized by lower incidence of ATOD. Regarding the prevalence of delinquency, again over slightly one-fourth of the adolescents surveyed were involved in serious delinquency. The highest prevalence was in Suanluang distinctively (40%). The second highest magnitude of delinquency is in Pathumwan (32%).

In general, it should be noted that the districts of problematic behaviour consistently repeat themselves among Pathum Wan, Wang Thonglang, Suan Luang and Sai Mai. Except for Bang Kho Laem, the other two districts seem to be relatively clean and consistently in all respects. Although not totally consistent for all districts, the threatening sexual behaviour and drug problems seem to be inter-related. The districts with sexual behaviour problems seem to be also the districts with drug concerns or higher delinquency rates. Although not totally surprising, the nature of the inter-relation needs to be further investigated.

The Impact of Bad Neighborhoods on Problematic Sexual Behaviour, Drug Use and Delinquency

In order to gain insights into the impact of bad neighborhoods on problematic adolescent behaviour, presentation of the seven districts and the indicators on difficult neighborhood and problematic behaviours is also provided in Table 3. It can be observed that districts of bad neighborhood are, to a certain extent, related to problematic behaviours of the adolescents. The clean districts of Bangkok Noi are clean not only in terms of the neighborhood but also the problematic behaviours of the adolescents. Bang Kho Laem has clean neighborhood but adolescents there seem to intend to have sex early on. On the other extreme, the bad neighborhoods at Pathum Wan, Wang Thonglang and Suan Luang are related to the adolescents' problematic behaviour. This is with the exception of Min Buri where there is evidence of being unsafe; full of thefts; faced with drug dealers and users; and showing sex related problems. Nonetheless, despite the presence of these factors, in Min Buri these factors apparently are not related to adolescents' reports of problematic behaviour. Exception is also seen in the comparatively clean district of Sai Mai, unfortunately, ATOD and pre-sexual

activities are evident. In conclusion, with the main exceptions of Min Buri and probably also Sai Mai, the strong relationship of the bad neighborhood and problematic behaviours is clear. Further study of this issue is certainly necessary and worthwhile.

Results from Selected Extreme Case Studies

As stated earlier, Min Buri is an intriguing case of a bad neighborhood where the report of problematic behaviours from the adolescents is unexpectedly low; this situation warrants further investigation. From the census data in 2000 (not shown here) it can be noted that percentage of Thai-Muslim in Min Buri is distinctively the highest (21%) of all seven districts under study. It is evident that Thai-Muslim communities are very traditional and family values are strong. The adolescents of 13-14 years old are probably closely monitored by their parents and protected by religious practices. These may provide important factors that may shield them from the bad neighborhood quite effectively. Although further investigation into this hypothesis is worthwhile and needed, the findings here perhaps can point to the fact that family responses to the threatening environments may be also best attached to religions.

On the contrary, in the case of Sai Mai, bad environments are found to be not at all significant and the district seems to be relatively clean, yet adolescents reported problematic sexual and drug use behaviour. The finding of this extreme or contradictory case points to the fact that the bad environments under investigation here may not be all inclusive. There may also be other threats to the adolescents that are not evident here. The paradox is also that among all seven districts under study, Sai Mai ranks the highest in terms of the education of parents (data not shown here). The threats to the adolescents may be linked to this dimension of the environment. One of the threats may be the use or misuse of the Internet, the school environment or the business or shopping areas where adolescents may be accessed to the hidden bad environments. These issues need to be further investigated and should be incorporated into the *Thai Family Matters* project elements as well.

Results from the Areal Analysis

Because of the significant implications of the characteristics of the seven districts, multivariate analysis of the areal effect on the behaviour of adolescents was carried out; the result of this analysis is shown in Table 4. The four dependent variables discussed earlier (including problematic sexual intention and behaviour and drug use and delinquency among the adolescents) are investigated across the six districts with Bangkok Noi serving as a reference group. In addition, as discussed earlier, social values, religion, and other characteristic of parents reflected in the district's characteristics, seem to be important to children behaviour. As a summary indicator of parents' influence, the problematic behaviour of father's alcohol use is also examined across the seven districts. The results of the areal study here seem to be consistent with the descriptive case study conducted earlier in this paper.

Table 4 shows that adolescent's problematic behaviours are significantly related to certain districts where these adolescents live. Sai Mai, Bang Kho Laem, Pathum Wan and, to a lesser extent, Wang Thonglang and Suan Laung are associated with problematic early sexual intention and behaviour. Although ATOD use is not found to be area specific, serious delinquency is clearly characterized by Pathum Wan and Suan Laung. These findings are consistent with previous presentation of the high level of the problematic behaviour among these districts. In addition, fathers' behaviour is also related to the districts they live. The districts including Bang Kho Laem, Wang Thonglang, Suan Laung and Sai Mai are characterized by higher level of father's problematic behaviours from alcohol use. In a majority of districts, father's negative characteristics coincided with adolescent's problematic behaviours (Sai Mai, Bang Kho Laem, Suan Laung and Wang Thonglang).

These areal variations tend to suggest that although there are clear consistency in areas where problematic behaviours of adolescents and their parents are prevalent, certain discrepancy still exists in other areas. Family's influence on adolescents is important but may be only partial; other factors related to adolescents' behaviours in the different areas need to also be investigated. *Thai Family Matters* project designs are required to consider including these various social and contextual features.

Discussion

Areal analysis of the problematic behaviour of adolescents and perhaps also, their family, together with parental perception of the bad neighborhoods among communities in Bangkok, seems to suggest that the phenomena can be considered as an *epidemic* which, as this paper has attempted to demonstrate, is area based. The need for the remedy of the epidemic is urgent. To this end, it will be necessary to develop new program materials which provide direct support to Thai families at the family level. Furthermore, it is essential for such products to strike the proper balance of reflecting local Thai wisdom with a strong understanding of the technology and best practice programs successfully implemented in other countries throughout the world.

The *Thai Family Matters* project attempts to address this need by working in a collaborative and scientific fashion to adapt, test, implement and bring to scale a set of program materials to support parents in talking with their children about alcohol, other drugs and appropriate behaviours related to relationships and sexuality. But as this study shows, programs which aim to strengthen families' abilities to look after adolescents' behaviour must also be area specific and responsive to the level of severity of the problem as well as take into account the diverse demographic, socioeconomic and perhaps also cultural and religious characteristics, which vary across communities and geographical areas.

At the micro or family level, such programs to prevent or correct the problematic behaviors of adolescents should be comprehensively and continuously developed, revised and implemented. At the same time, the macro - level approaches and measures at the larger community levels need to be even more rigorous to manage the difficult neighborhood issues as well as to deal with the bad environment in the broader areas of Bangkok Metropolis where the adolescents live. Unless the two approaches are seriously followed and supplementary to each other, adolescents' problems will still be continuing major concerns.

The challenge as we go forward collectively is to consider these many ways in which we can augment programs which support individuals and families with a comprehensive and sustainable set of policy and other program initiatives of all levels. Such inclusive programs can serve to foster the creation of safe and healthy communities which promote the norms and conditions amenable to raising a generation of healthy, productive and well-balanced Thai youth. Our young people deserve this opportunity; and in turn, our country will benefit greatly as a result.

Acknowledgements

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Table 1

Factor Analysis of Bad Neighborhood from Parents' Perspectives (Rotated Component Matrix of Neighborhood Factors)

	Component*				
	1	2	3	4	5
Police not caring about our problems	0.760	0.318	0.261		
Police not available	0.758	0.315	0.287		0.206
City officials ignoring problems	0.731	0.244	0.215		0.207
Unsafe being out alone at night	0.692	0.208	0.288		
Groups of teenagers hanging out in public places making a nuisance of themselves	0.624	0.244	0.302	0.400	
Pickpockets and being accosted on the street for money	0.599	0.379	0.214	0.288	
Drive by shootings	0.595	0.557	0.219		
Poor schools	0.584	0.293		0.225	0.486
Transportation not available	0.555	0.546	0.239		
Unsupervised children	0.488	0.451	0.262	0.477	
People fighting	0.481	0.225	0.340	0.376	0.213
Run down and poorly kept buildings and yards	0.246	0.776			
Abandoned houses or buildings		0.718			0.251
Organized crime, or the 'mafia'	0.340	0.676	0.265	0.293	
Prostitution, 'sex workers'	0.234	0.662		0.212	0.441
Sexual assaults or rapes	0.487	0.655	0.351		
Selling of stolen goods	0.467	0.503	0.289	0.423	
People living on the street	0.449	0.467		0.308	0.281
Gangs	0.448	0.464	0.231	0.459	0.238
People who are using drugs or who are drunk	0.245		0.769		0.359
Young people who are using drugs or who are drunk	0.275	0.234	0.762		0.308
Drug use or drug dealing in open	0.485	0.294	0.604	0.297	
Houses known for selling drug use/drug sales	0.437	0.407	0.553	0.255	
Illegal gambling	0.341	0.460	0.518	0.317	
Burglaries and thefts	0.454	0.386	0.475	0.209	
Group of young people who are hanging around and/or visiting bars and/or discos.				0.841	
Pregnant teenagers			0.218	0.825	0.218
High unemployment, many people out of work.		0.210	0.291		0.676

| | Component[*] | | | | |
	1	2	3	4	5
Vandalism, buildings and personal belongings broken and torn up	0.399		0.272		0.668
Little respect for rules, laws, and authority	0.384		0.396		0.610
Unsafe being on the streets during the day	0.328	0.257		0.320	0.582

Extraction Method: Principal Component Analysis. Rotation Method: VarimaxwithKaiser Normalization.

[*] Components (in shaded areas)

Factor 1: Unsafe neighborhood

Factor 2: Abandon, rundown and gangster areas

Factor 3: Drug and gambling area

Factor 4: Sexual behaviour related problem

Factor 5: Theft area

Table 2

Mean Value of the Five Bad Neighborhood Factors from Parents' Perspective of the Seven Districts

District		Inner Zone		Middle Zone			Outer Zone	
		Pathum Wan	Bangkok No	BangKho Laem	Wang Thonglang	Suan Luang	Min Buri	Sai Mai
Factor 1: Unsafe neighborhood	Mean	0.202	-0.469	-0.486	-0.056	0.696	0.744	-0.414
	N	49	54	43	43	43	38	47
	Std. Deviation	1.159	0.578	0.772	0.877	1.060	0.910	0.731
Factor 2: Abandon, rundown and gangs areas	Mean	0.657	-0.264	-0.298	-0.215	0.355	-0.098	-0.158
	N	49	54	43	43	43	38	47
	Std. Deviation	1.341	0.418	0.651	0.800	1.028	1.429	0.629
Factor 3: Drug and gambling Areas	Mean	0.031	-0.377	0.293	-0.192	0.372	0.381	-0.340
	N	49	54	43	43	43	38	47
	Std. Deviation	1.106	0.729	1.058	1.069	0.972	1.138	0.603
Factor 4: Sexual behaviour related problems	Mean	0.322	0.020	0.055	-0.098	-0.454	0.323	-0.164
	N	49	54	43	43	43	38	47
	Std. Deviation	1.182	0.687	0.960	0.948	0.862	1.414	0.700
Factor 5: Theft area	Mean	-0.269	-0.284	-0.240	0.449	-0.550	0.967	0.136
	N	49	54	43	43	43	38	47
	Std. Deviation	1.083	0.427	0.733	0.814	0.911	1.361	0.776

Note : Shaded areas indicate districts with high bad neighborhood factor scores.

Table 3

Percentage of Adolescents Aged 13-14 Years Reporting Problematic Behaviours in the Seven Districts in Bangkok, 2007

Problematic Behaviours	Inner Zone	Middle Zone				Outer Zone		Total
	Pathum Wan • Abandon, rundown and gangs areas • Sexual Behavior related problems	Bangkok Noi	Bang Kho Laem	Wang Thong Lang • Theft area	Suan Luang • Unsafe neighbor hood • Drug and Gambling	Min Buri • Unsafe neighbor hood • Drug and Gambling • Sexual Behavior related problems • Theft area	Sai Mai	
	(N=59)	(N=60)	(N=60)	(N=60)	(N=60)	(N=60)	(N=60)	(N=419)
Problematic Sexual Behaviour								
Sex intention measure	1.18	1.05	1.27	1.09	1.23	1.07	1.35	1.17
Pre-sexual behaviour Index	1.1	0.4	0.6	0.9	1.0	0.4	0.9	0.7
Drug Use and Delinquency								
Percent ever used ATOD	30.4	20.8	26.8	34	27.6	23.3	32.1	27.6
Percent involved in serious delinquency	32.2	21.7	26.7	28.3	40	25	23.3	28.2

Note : Shaded areas indicate districts with high scores on problematic behaviour. Light areas have scores lower than means.

Table 4

Results of the Regression Analysis of Problematic Behaviours of Adolescents (13-14 years old) and their Fathers by the Seven Districts in Bangkok, 2007

	Adolescent and Father's Behaviours									
	Adolescent's Problematic Behaviours								Father's Problematic Behaviours from Alcohol Use[1]	
	Problematic Sexual Behaviour				Drug Use and Delinquency					
	Intention to Have Sex in Six months		Pre-sexual Behaviour Index		Ever Used ATOD		Serious Delinquency Scale			
District	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
District (Reference is Bangkok Noi)										
Pathum Wan	.072	.268	.156	.015**	.071	.286	.108	.091*	.056	.527
Bang Kho Laem	.132	.047**	.038	.547	.048	.484	.039	.546	.458	.000***
Wang Thonglang	.022	.741	.112	.080*	.099	.141	.083	.196	.172	.064*
Suan Luang	.102	.120	.124	.052*	.055	.424	.122	.058*	.243	.011**
Min Buri	.010	.885	-.016	.801	.021	.761	.028	.666	.015	.871
Sai Mai	.175	.008***	.110	.083*	.088	.195	.006	.931	.256	.010***
(Constant)		.000***		.021**		.001***		.005***		.000***
Number of cases	367		412		372		418		161	

[1]This behaviour is the summation of the following experience : 1. I have been unhappy because of my drinking; 2. Because of my drinking, I have not eaten properly; 3. I have failed to do what is expected of me because of my drinking; 4. I have felt guilty or ashamed because of my drinking; 5. I have taken foolish risks when I have been drinking; 6. When drinking, I have done impulsive things that I regretted later; 7. My physical health has been harmed by my drinking; 8. I have had money problems because of my drinking; 9. My physical appearance has been harmed by my drinking; 10. My family has been hurt by my drinking; 11. A friendship or close relationship has been damaged by my drinking; 12. My drinking has gotten in the way of my growth as a person; 13. My drinking has damaged my social life, popularity, or reputation; 14. I have spent too much or lost a lot of money because of my drinking; 15. I have had an accident while drinking or intoxicated.

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significance level of p < .01

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significance level of p < .05

*
significance level of p < .10