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The Impact of Thai Family Matters on Parent/Adolescent Sexual Risk Communication Attitudes and Behaviors

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Abstract

This article reports on a combined family-based substance abuse and HIV prevention intervention targeting families with children ages 13-14 in Bangkok, Thailand. Families (n=340) were randomly and proportionally selected from seven districts in Bangkok with half randomly assigned to an experimental or control condition. Families in the intervention condition were exposed to five interactive booklets about adolescent substance use and risky sexual behavior. Trained health educators followed up by phone to encourage completion of each booklet. Primary outcomes reported in this paper include whether the intervention increased the frequency of parent/child communication in general or about sexual risk taking in particular as well as whether the intervention reduced discomfort discussing sexual issues. We also tested to see if booklet completion was associated with communication outcomes at the 6-month follow-up. Multivariate findings indicate that the intervention significantly affected the frequency of general parent/child communication based on child reports. The intervention marginally affected frequency of parent/child communication about sexual issues based on parent reports. Booklet completion was

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associated with reduced discomfort discussing sex and was marginally associated with frequency of parent/child discussion of sex based on parent reports only. These findings indicate that a family-based program can have an impact on communication patterns.

Changes in the economy and culture in Thailand (Vuttanont, Greenhalgh, Griffin & Boynton, 2006) have been accompanied by the adoption of more liberal views of sexuality, particularly among adolescents and young adults. These modern views (more closely in line with those of Western youth) are in conflict with both the values of traditional Thai culture and those of older adults. National [Thai] data from 1996 to 2004 indicated that sexual activity among secondary school students was increasing (Adolescent Health and Development Unit, 2007); more recent data supports the continuation of that trend with the proportion of adolescents engaging in sex increasing from 2005 to 2008 (Bureau of Epidemiology, 2009, unpublished report) in both traditinal high schools (females from 9 to 15%; males from 18-24%) and vocational schools (females from 30 to 37%; males from 38 to 43%). Recent reports indicate the median age for first intercourse is 15 (Assanangkornchai et al., 2008). These decreases in the age of sexual initiation have reawakened concerns about adolescent risk of HIV, other STIs, and pregnancy (Allen et al., 2003; Whitehead et al., 2008) that had been previously allayed or minimized by the success of the 100% condom campaign in Thailand (Hanenberg, Rojanapithayakorn, Kunasol, & Sokal, 1994; Mason et al., 1998; Nelson et al., 2002; Rojanapithayakorn & Hanenberg, 1996).

One potentially protective factor for adolescents in an increasingly risky environment is the family unit, which continues to be strong and central to the cultural traditions and Buddhist practices of the nation (Sielman, 1994). However, intervention programs in Thailand to date have not targeted the family systems as a venue for the delivery of health promotion messages or as a resource for youth who have questions or concerns related to relationship development or sexual health. In fact, while parents have often relied on schools to deliver information about sexuality and sexual risk (Kay, Jones and Jantaraweragul, 2010), schools have historically been inconsistent in their delivery of sex education curricula. Although in 2001 sex education was actually incorporated into the nation's Compulsory Education curriculum (Noppakunthong, 2007) there is still not universal access by students in all schools (Nitirat, 2007)

Early in this study, Thai parents were invited to participate in both focus groups and interviews to share their insights and concerns about adolescent sexual behavior. They reported their discomfort with introducing discussions of sex and substance use with their adolescents and indicated that programs that would help them engage in such conversations would be helpful. This is consistent with previous research in Thailand which has found a lack of communication between parents and adolescents around risk behaviors (Cash, 1995; Ford & Sirinan, 1994; Rhucharoenpornpanich, in press; Vuttanont et al., 2006). Fear of creating dissension in the family often leads to adolescent secrecy about dating and sexual activity (Thongpriwan & McElmurry, 2006; Vuttanont et al., 2006), which in turn leads youth to seek advice from sources (e.g., other youth, the media) that are not suited to assist them in sound decision making, similar to findings from other studies of Asian youth (Shoveller, Johnson, Langille & Mitchell, 2004)

Family-based programs that provide parents with skills to engage in discussions around risk behaviors and reduce parental discomfort in addressing these sensitive topics have been noted in both US and international studies (Hollander, 2000; Yu, 2007) yet little work has been done with non-Caucasian or non-Western populations (Yu, 2007). Research on parent child communication in the US has suggested that youth are more likely to adapt parental norms and develop the ability to govern their own behaviors in the absence of external

supervision when they and their parents openly discuss relevant issues as well potential areas for disagreement. Parent child communication that sets clear expectations has been found to promote youth internalization of parent norms and expectations (Brody, Flor, Hollett-Wright, McCoy 1998; Brody et al., 2001; Whittaker & Miller, 2000) while contributing to overall self-control (Brody et al., 2001)

The impact of parent-child communication on sexual attitudes and behaviors may also depend on whether the child perceives the parent to be skilled, comfortable and open in discussing issues related to sexuality (Whitaker, Miller, May & Levin, 1999). This research has emphasized the importance of working with a low sexually involved adolescent population when the communication process is then more likely to precede sexual activity and when parental authority has greater influence (Rosenthal & Feldman, 1999).

The purpose of this paper is to present findings from a feasibility study to adapt, implement and evaluate a family based substance abuse and HIV prevention study targeting families with children 13-14 years of age living in Bangkok, Thailand. The primary outcomes reported here are (1) whether the program increased general parent/child communication, parent/child communication about sexual risk, and reduced discomfort when discussing sexual issues when compared to a control condition and (2) whether level of completion of the program was associated with gains in these domains.

The Intervention: Thai Family Matters

Thai Family Matters (TFM) is based upon Family Matters (FM), a universal substance abuse family intervention that has been found to reduce alcohol use at three month and one year follow-ups in a national, randomized trial in the U.S. (Bauman et al., 2002). It is based on the risk and protective framework that suggests variables such as family support, community, social support and modeling can influence adolescent risk taking (Hawkins et al.,1992). Both the original and adapted programs addressed theoretically derived risk and protective factors important to adolescent alcohol/other drug use (Bauman et al., 2002; Rosati et al., 2012) that can be influenced by family action. TFM differs in two ways: 1) first, the program was adapted to be consistent with the Thai context and cultural values; and 2) it was expanded to address sexual risk behaviors. A description of the processes used to adapt and implement the program can be found in a related manuscript (Rosati et al., 2012).

Upon completion of the baseline survey, 170 families (which represents half of the sample) who were randomly selected to participate in the intervention were provided with the first booklet along with instructions that a health educator would be calling them in the next day or two to walk through the booklet and to explain the program in greater detail. The health educators had been trained by the project investigators to explain the program, encourage the parents to ask questions about the process and the program, and offer encouragement in initiating discussions with their children. A series of five booklets (as opposed to four in the original FM) were distributed sequentially, with telephone support provided weekly (on average) by the health educator. As this family-based approach was novel to Thai parents, the health educators were important in that they not only provided information about the program but provided support and encouragement to the mothers they spoke with on the phone. Mothers reported that health educators were an important element of the program and that the telephone format was easier than accommodating face-to-face meetings (Rosati et al., 2012). Conversations were sometimes lengthy and mothers were almost universally pleased to speak with the health educator, who was viewed as a free and accessible resource.

Topics relevant to adolescent risk taking were incorporated into weekly exercises led by the parents. Content of the booklets provided to families included parental awareness of teen behaviors (particularly those that were the risk behaviors of focus in the program),

interactive exercises to improve family communications, encouragement of parents to outline expectations and rules for their teens around behaviors (especially related to risk behaviors), recognition of pressures external to families (peers and media) for engaging in risk behaviors, and interactive exercises to resist such pressures. In weekly discussions with the parent, the health educator recorded which exercises had been completed and how the parent assessed the success of those exercises. When the family completed all of the exercises within a booklet, the health educator sent the subsequent one. Upon completion of the program, the parent had a final discussion with the health educator and received a letter recognizing their participation in TFM. This in-home delivery method provided parents with exercises and scenarios to build core parenting capabilities to discuss alcohol, drugs and sexual risk behaviors with their younger adolescents, given that parents have great influence on shaping norms, expectations, and attitudes about risk-taking behaviors among younger age groups in Thailand.

Parent Recruitment and Sampling Strategy

Using a longitudinal design, families (n = 340) were randomly and proportionally selected from seven districts of Bangkok, Thailand (for greater detail on selection strategy see Chamratrithirong et al., 2009). Half of the families in the study sample were randomly assigned to the experimental condition and half to the control condition. After completing the pretest, those families randomly selected to be in the intervention condition were informed that they were invited to participate in the Thai Family Matters program (Byrnes et al., 2011). See Table 1 for the number of total households, number of household with adolescents, and number of households assigned by condition.

Survey Administration

Consent forms were given to parents prior to survey administration explaining the study protocol and purpose. They were asked to sign the forms to indicate their willingness to participate as well as their willingness for their child to participate. Once parental consent was received, adolescents were given assent forms to sign, indicating they understood the study protocol and wanted to participate in the study.

Parents participated in a face to face administrator interviewer-baseline survey and a six month follow-up survey conducted in the home. The survey methodology was selected because formative interviews indicated that parents were less comfortable with computers. All of the interviews were conducted with mothers because few fathers indicated a willingness to participate during formative work.

Adolescent baseline and 6 month survey data were collected using audio computer-assisted self-interviews (ACASI) on a laptop computer with one adolescent meeting the age criteria per family. These interviews were also conducted in the house. For this analysis both the parent and child survey data, were used (n=680). The six month follow-up rate was 94%.

Measures

To ensure that survey measures we selected from US-based studies were measuring the same construct in Thailand the following steps were taken: 1) instruments were adapted collaboratively by Thai and US researchers; 2) a Thai research member translated the survey into Thai and a second Thai researcher back-translated into English to reduce the possibility of a biased assessment; 3) the entire team reviewed the back-translation to insure that questions were effectively measuring key constructs and the original intent of the measures; and 4) adolescents and parents (not in the main study) were asked to participate in cognitive interviews about survey wording for clarity and interpretability. Finalized surveys were administered at baseline and at the six month follow-up.

Dependent Variables—Three dependent variables were derived from the parent and child six month surveys. The first dependent variable was a nine item general parent/child communication measure (Spoth, Redmond, Haggerty & Ward, 1995)Parent *respondents* were asked how often they spend time talking with their childabout important issues. Questions on the parent survey included such items as how often did the respondent "Sit down with my child and discuss his or her problems?" "Show support when my child about what he or she wants to do when grown up" Response categories ranged from "1=Most of the time-almost daily" to "4 = Never" (Cronbach alpha in our sample =0.83 for parent responses). Questions similar in nature were asked of the child respondent about discussions with his or her parent (Paschall, Ringwalt & Flewelling, 2003). This 10 item measure was slightly different than the Spoth measure but was developed specifically for youth. It asks questions about how often the child respondent talks with his or parents about " concerns" or "plans for the future" Cronbach alpha in our sample = .86 child responses) as well as questions about discussions of specific adolescent risk behaviors. The third measure was adapted from a nine item parent/child communication about sex scale (Diloria, Dudley, Soet, & McCarty, 2004). For the child survey all nine items were used with survey questions asking, "How many times have you talked to your parents about what sexual intercourse is" with response categories ranging from "1" "We never talk about it to "4 = We talk about it a lot of time" *(Cronbach alpha = 0.91, child responses)* For the parent survey on a single item was used from this scale stating "How often did you discuss with your son or daughter about having sex" with response categories ranging from "1 = Frequently" to "4 = Never". The third outcome is level of discomfort discussing issues about sex. Parents and children responded to a single item created for this study. The item states "How comfortable or uncomfortable would you feel discussing with your son or daughter about having sex. Response categories ranged from "1=Very uncomfortable " to "4= "Very uncomfortable". Identically worded questions were ask of the child respondent about level of discomfort discussing issues about sex with his or her parent All items were reverse coded with higher scores representing more frequent parent/child general or sexual communication or greater discomfort discussing sexual issues with their child.

Independent Measures—The independent measures for this analysis included: (1) assignment to intervention or control group; and (2) number of booklets completed (range 0-5). When examining the impact of dosage on our outcomes, the analysis was limited to the intervention group only. Covariates in all analyses included child's age, child's gender, family income and baseline standing on the outcome of interest.

Analyses

Separate multiple linear regression analyses were performed to examine changes in parent and child communication outcomes. We ran separate regressions based on the child and parent responses to these outcomes. We first examined changes in frequency of general parent/child communication, changes in parent/child communication about sex and level of discomfort discussing sex for the full sample (n=340). We then narrowed the analysis to the intervention group only (n=170) and assessed whether changes in these outcomes were associated with the number of booklets completed. For each regression model, we controlled for age of the child, family income level, child's gender and baseline standing on the outcome of interest and tested the impact of intervention status on our six month outcomes when controlling for baseline standing. For the parent and child models different, but partially overlapping, general communication scales were used (Spoth et al., 1995; Paschall et al., 2003). For the parent and child models measuring frequency of sexual communication different items were used. The parent model included a single item asking about frequency of sexual communication and the child model included a nine item measure of sexual

communication (Diloria et al., 2004). For level of discomfort discussing sex, the same single item measure was used for both parent and child.

Results

The TFM study (n=340 families) found high program completion rates. Of the 170 families in the intervention condition, all completed the first booklet (of five), 85% completed all five booklets, and families reported high levels of satisfaction with the program, suggesting that a family based intervention in Thailand is feasible and well received by families (Rosati et al., 2012).

Our descriptive analysis indicated that mothers in our sample were on average 41 years of age, married (83%), described their ethnicity as Thai (91%) and reported an average of 6 years of schooling. Child participants were on average 13.5 years of age, half were female and reported similar ethnic identities as their parents. Only 4% of the teen sample had ever had sexual intercourse, indicating targeting this age group will allow parents to initiate discussions about sexual risk taking before their youth are sexually active (Table 2).

Overall Program Impact

Our family based intervention was found to impact teen reports of the frequency of general parent/child communication at the six month follow-up, controlling for baseline standing on this outcome (β = .11, $p < .05$) (see Table 3). We also found that older teens were less likely to communicate with parents than younger teens (β = -.14, $p < .01$) (see Table 3) emphasizing the importance of intervening with younger ages in family based interventions. In a linear regression model examining the impact of the family based intervention on parental perception of the frequency of general parent/child communication, we found the intervention did not impact parent reports of parent/child general communication at the six month follow-up ($\beta = .05$, $p < .37$) (data not shown).

When examining the impact of the family based intervention on frequency of communication of sexual issues, we found that the intervention marginally impacted parent but not child reports. Parents in the intervention condition, when compared to parents in the control group, reported marginally greater parental child communication about sex at the six month follow-up when controlling for baseline standing on this outcome (β = .09, $p = .09$) (see Table 4), however we found no significant impact of the intervention on teen perception of frequency of sexual communication at the six month follow-up (β = -.01, $p = .80$) (data not shown). We also found no impact of the intervention on parent or teen perception of decreased discomfort talking about sex at the six month follow-up (β = -.13, $p = .2$; β = -.02, $p = .78$, respectively) (data not shown).

Dosage Effects

We next examined whether the completion of booklets by the family was associated with parent/child communication outcomes or levels of discomfort discussing issues related to sexual risk taking at the six month follow-up. When narrowing the analysis to those in the intervention condition only (n = 170) we found that the number of booklets completed was marginally associated with parent reported of frequency of parent/child communication about sex at the six month follow-up (β = .14, $p < .10$) (see Table 5) and significantly associated with reduced parental discomfort discussing sex based on parent reports (β = -.18, $p < .05$) (see Table 6). We did not see similar effects based on child reports of frequency of parent child communication about sex or reduced discomfort discussing sex at the six month follow-up (β = -.09, $p < .24$; β = .11, $p < .16$, data not shown).

Limitations

The study findings are based on self-reports of parent - child communication behaviors. A limitation of this analysis is that the communication measures for parents and children were overlapping, but not identical. The general communication measure for parents was a nine-item measure developed by Spoth and colleagues (1995); the parent/child general communication measures for children was a ten item measure developed by Paschal and colleagues (2003). The authors of the study elected to adapt previously validated measures for adaptation to the Thai environment rather than create completely new scales; while a sound approach, the result was that measures of parent/child communication are not identical. Thus, differences in measurement may, in part, account for the differences in the effect of the intervention on parent and child communication reports. Similarly, measures of the frequency of sexual communication were also different. The parent measure was a single item while the child measure of frequency of sexual communication relied on a nine item measure increasing its validity and reliability. Unfortunately this may have masked some findings because the parent measure was not as discrete as the child measure. The single item level of discomfort discussing sex was identical in both child and parent surveys.

Parent data was collected only from mothers for two reasons. First, in our initial pilot study, very few fathers indicated a willingness to assume the primary role in the study (completing surveys and interacting with health educators). Second, the scope of the study would not allow for us to recruit and enroll enough families where both parents were willing to be active participants in all aspects of the study. However, this did not preclude fathers from being involved in the implementation of the exercises; all booklets were designed to be inclusive of all family members living in the household (limited only by developmental appropriateness for young children).

Finally, because the purpose of this study was to assess the feasibility of adapting and implementing a family based substance abuse and sexual risk reduction intervention to Thai families, we were restricted to a six month follow-up period and small sample size (n=340), limiting the ability to assess change over time and reducing statistical power to detect intervention effects.

Conclusion

Feasibility

Our formative work on the Thai Family Matters study indicated that parents felt a need for a program that would enable them to have more honest and open discussions with their youth about substance use and sexual behavior. Once adapted and implemented, the program demonstrated strong feasibility and acceptability by parents. The study exhibited high consent and follow-up rates, with 85% of participants completing all five booklets, suggesting that family based approaches can be successfully adapted for and implemented with Thai families. In addition to being well-liked, the low-cost nature of the program (small booklets and a health educator that can serve hundreds of families), makes the intervention both sustainable and able to be adapted for delivery in rural communities as well urban ones. In fact, the Thai government indicated their interest in adopting the program more widely in a letter of support for a follow-up grant application.

Impact

Based on our 6-month findings, the intervention had a significant impact on teen perception of parent-child general communication and marginally impacted parent reports of the frequency of parent child communication of sexual issues. We also found that booklet completion was positively associated with increases in the frequency of parent/child

communication about sex and reduced discomfort discussing sexual issues based on parent reports. We did not see a similar effect for child reports on these outcomes. Studies in Western Europe and the US on parent/ child concordance suggest that children frequently underestimate the amount and frequency of parent/ child communications about sex (Hollander, 2000; Jaccard, Dittus & Gordon, 1998; Newcomer & Urdy, 1985). For example in Jaccard's study of African American mothers and teens (ages 14-17), 72% of mothers reported that they strongly agreed with the statement that they had talked with their teen about sex, while 45% of teens concurred. It has also been suggested by Jaccard and colleagues (1998) that maternal reports of parent-teen communication may be biased toward reflecting all communication efforts on the part of the mother "independent of their impact on the teen" (page 258) whereas the teen report may be biased "toward reflecting only communication that affected the teen and that the teen judges to be noteworthy" (page 258), suggesting that parent and teen reports reflect different perspectives of the communication process.

Regardless of whose report is most reflective of the actual frequency of communication, it is important to note that theoretical and applied research suggests that teen reports of parent/ child communication are likely to be more predictive of sexual attitudes and behaviors because such report reflect cognitions that the teen is acting upon (Jaccard et al., 1998). Future research should more fully explore the content and depth of the information communicated about sexual risk taking while also seeking to better understand and impact child perceptions of these communication strategies if we are to meaningfully impact attitudes and sexual behaviors of youth.

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Table 1

Recruitment for pre-test interview (Rosati et al., 2012).

Households (hh) identified (7 districts, n=31,036)	Households with 13-14 year old teens	Households refusing to participate in either the baseline survey or the intervention study	Households agreeing to participate in both the baseline survey and the intervention study	Random sample of households selected for study
Minburi (4659 hh)	147	63	84	50
Pathumwan (4715 hh)	105	10	95	48
Bangkoknoi (4553 hh)	136	19	117	50
Bangkorlaem (3998 hh)	122	21	101	46
Sai Mai (4312 hh)	119	50	69	48
Wangthonglang (4949 hh)	135	8	127	48
Suanluang (3860 hh)	108	13	95	50

Table 2

Descriptive characteristics of the study sample (n=340)

	Mothers		Teens	
	Mean	**SD**	**Mean**	**SD**
Age	41.0	5.62	13.45	.52
Parent Years of Education	6.1	10.2		
	%	**n**	**%**	**N**
Female	100		50	170
Ethnicity				
Thai	91.0	309	91.0	309
Thai-Chinese	8.0	27	8.0	27
Other	1.0	4	1.0	4
Marital Status				
Married	83.2	283	----	----
Divorced/separated	12.1	41		
Widowed	4.7	16		
Income (Baht)				
Low 4000-14,000	46.8			
Middle 14,000-24,000	30.0			
High 24,001	23.2			
Ever had intercourse	---	----	4	14

Table 3

Impact of the intervention on general child/parent communication [a] (child report)

	B	SE	β	t	p value
Intervention	.17	.08	.11	2.01	*
Teen Age	-.22	.08	-.14	-2.67	**
Teen Gender	-.16	.08	-.10	-1.85	^
Family Income	.00	.00	-.07	-1.37	
Baseline c/parent communication	.33	.06	.31	5.78	***

Note:

^ p<.10;

* p <.05;

** p <.01

[a] Child report

Table 4

Impact of the intervention on parental perception of child/parent communication about sex[a]

	B	SE	β	t	p value
Intervention	.20	.12	.09	1.67	^
Teen Age	.06	.12	.03	.47	
Teen Gender	-.05	.13	-.02	-.42	
Family Income	.00	.00	.09	1.70	^
Baseline c/parent communication	.33	.06	.31	5.68	***

Note:

^ p<.10;

* p <.05;

** p <.01,

*** p<.001

[a] Parent report

Table 5

Impact of booklet completion on parental perception of frequency of sex communication [a] (intervention group on)

	B	SE	β	t	p value
Booklets completed	.15	.09	.14	1.77	^
Teen Age	.04	.16	.02	.28	
Teen Gender	-.22	.17	-.10	-1.29	
Family Income	0.0	.00	.01	.19	
Baseline c/parent communication [a]	.30	.08	.29	3.66	***

Note:

^ p<.10;

* p <.05;

** p <.01,

*** p<.001

[a] Parent report

Table 6

Impact of booklet completion on parental discomfort of discussing sexual risk behaviors [a] (intervention group only)

	B	SE	β	t	p value
Books completed	-.16	.07	-.18	-2.35	*
Teen Age	-.18	.12	-.11	-1.49	
Teen Gender	.10	.13	.06	.82	
Family Income	.00	.00	-.02	-.21	
Baseline c/parent communication	.26	.07	.30	3.87	***

[a] Parent report

Note:

^ p<.10;

* p <.05;

** p <.01,

*** p<.001