

A cross-sectional survey of local Neighborhood Watch scheme participants concerning the risk of "stranger danger" to children on their way to and from school

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The objective of this study is to analyze the attitude of Neighborhood Watch scheme participants towards "stranger danger". The subjects consist of 140 participants in local Neighborhood Watch schemes. The data were obtained by anonymous hand-distributed questionnaires to scheme participants. In addition we carried out on-site surveys (inspections) of the Neighborhood Watch residences. Participants whose residences scored full marks on the scale of suitability as Neighborhood Watch houses had made a conscious decision to stay at home during the hours children travel to and from school. We concluded that the ability of children to avoid harm is connected with (a) scheme participants' level of risk perception and (b) community awareness. Furthermore, improving residents' sense of community may play an important role in protecting children from "stranger danger".

Keywords: Stranger danger, risk mitigation, Neighborhood Watch scheme, sense of community

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1. Introduction

Schools in Japan have traditionally been considered as safe places for children. However, recently that perception has been shattered by some shocking incidents of school violence (Sasaki, 1998; The Japan Times, 2004). For example, in May of 1997, the decapitated head of an 11-year-old child was found outside a school gate in Kobe. A 14-year-old student from a nearby middle school later confessed to the crime (Sasaki, 1998). More recently, a man entered Ikeda Elementary School in Osaka and stabbed to death 11 children (The Japan Times, 2004).

Naturally, parents everywhere try to protect their children from harm, and when children reach school age, the range of concerns increases (Direnfeld,

2003; Pynoos, et al., 1987). Motor vehicle accidents have previously been the greatest source of concern. However, increasingly in Japan, protecting children now also means shielding them from intentional acts of violence by fellow students and intruders to the school. Recently, there have also been a number of incidents of elementary school children being abducted on their way to and from school, with one of the abductions leading to the child being murdered in Nara Prefecture (The Japan Times, 2004).

Media coverage of events like these is forcing parents in Japan to re-evaluate their perceptions of the safety of children making their way to and from school and to re-examine the roles they play in the lives of their children. Incidents of adults stalking children have recently also increased in Japan (National Police Agency, 2004) but there have



Figure 1 An example of the Neighborhood Watch sticker used in Ehime Prefecture. The actual sticker is A4 size (21cm by 29.7cm). The design of the mascot, Iyo-mamorukun, combines the traditional police insignia with the use of a mikan orange, an agricultural product for which Ehime is well known.

been few strategies developed to deal with such problems. One current strategy is the Neighborhood Watch scheme. In Ehime Prefecture, the police put into operation such a scheme under the name "Iyo-mamorukun-no-ie" (see: **Figure 1**). In cooperation with local Parent Teacher Associations (PTAs), volunteers have also been dispatched to keep an eye on playgrounds and the zones around schools as a deterrent against child molesters.

However, it is likely that neither group has developed sufficient preventive strategies against the risks of strangers danger because children and their parents lack experience in dealing with issues like stalking and abduction, and the participants in Neighborhood Watch schemes also lack guidance and an adequate frame of reference. Therefore, it is likely that these groups are influenced by neighborhood rumors and local gossip.

Reports and warnings from the police have made children and their parents concerned about the potentially serious consequences of "stranger danger", but this has also resulted in increased levels of anxiety because there are as yet few concrete measures to deal with the problem.

In this study we investigate the perceptions that Neighborhood Watch scheme participants have of the risk of "stranger danger". Moreover, we also inquire into aspects of the Neighborhood Watch scheme and into community awareness in relation to the risk of "stranger danger".

2. Methods

2.1. Study design and procedure

The survey and field study was carried out in the community surrounding two public elementary schools located a kilometer apart in the center of Matsuyama City in Ehime Prefecture. The purpose and content of our questionnaires was explained to the subjects beforehand. All the respondents also provided their consent to participate in the study.

In this study, we used the data gathered from visiting the Neighborhood Watch scheme houses. We administered a questionnaire on attitudes and risk perceptions to "stranger danger" of participants in the Neighborhood Watch scheme (see: **Appendix No.1**).

We also evaluated each residence using a list of nine factors relating to how well the house fit the requirements of a good Neighborhood Watch house. Marks in the Neighborhood Watch House Checklist were awarded as follows: "yes"= 2, "no" = 1, maximum score: 18 and minimum score: 9 (see: **Appendix No.2**).

2.2. Statistical analysis

We compared the answers from the questionnaires given to the Neighborhood Watch scheme participants with the assessments we made of each Neighborhood Watch house. Categorical variables were assessed with the Chi-square test with Yate's correction or Fisher's exact test, as appropriate. We used STATISTICA 7.0 software (Stat Soft, Inc.) for all analyses, with significance being set at $p < 0.05$. All P value were two-tailed.

To examine the factors associated with the participants' risk perception, a multiple logistic regression analysis was used. A univariate analysis was performed to associate the participants' risk perception with each of the variable factors of their assessments and then the variables were analyzed using the forward selection stepwise procedure ($p \leq 0.05$ as inclusion and $p \geq 0.10$ as exclusion).

3. Results

Table 1 shows a breakdown of the Neighborhood Watch scheme participants. There were 140 participants in the survey. The response rate was 77.9%, with 109 questionnaires completed. We

Table 1 Reasons given for joining Neighbourhood Watch

Scheme participant	Number of participants	Joined following request by school or PTA	Volunteered to join scheme	Joined at request of community leader	No reason given
Store	37	13	14	5	5
House*	26	15	4	7	
Barber shop	9	7	1	1	
Company office	7	4	3		
Convenience store	5	2	3		
Clinic	5	3	2		
Café	5		4	1	
Hotel	3		3		
Dry cleaner	2		2		
Welfare Center	2		2		
Pharmacy	2	2			
Post office	2	1	1		
Corner store	1		1		
Sports center	1		1		
Juku (cram school)	1		1		
Fire station	1	1			
Total	109	48	42	14	5

*Only homes where there were children present were eligible to join the scheme

compared the answers given by the 109 respondents to an independent assessment of the suitability of the participants' establishments. **Table 1** also shows that 44 percent of the scheme participants joined because of a request by a school or PTA, 38.5 percent volunteered for the scheme and 12.9 percent joined at the request of a community leader.

Table 2 shows a summary of the responses from the Neighborhood Watch scheme participants. The detailed responses given to Q4 indicated that the participants protected two children from incidents of "stranger danger" last year.

Table 3 shows the relationship between the independently assessed suitability of Neighborhood Watch shops/houses compared to the inhabitant's self-assessment. There was a significant relationship between houses/shops which scored full marks and the answers given to Q13, based on the univariate analysis ($p < 0.05$ by Chi-square test). Houses which scored full marks usually had someone at home during the hours children are traveling to and from school.

4. Discussion

Due to a pre-existing cooperative relationship between Ehime University's Faculty of Education and the two survey schools, we were able to obtain the addresses of all the Neighborhood Watch residences in the surrounding community and we

Table 2 Answers from Neighborhood Watch scheme participants (n=109)

	number (%)		number (%)
Q1 Under one year	2 (1.8)	Q10 Yes	79 (72.5)
From one to two years	1 (0.9)	No	27 (24.8)
More than two years	106 (97.2)	No response	3 (2.8)
Q2 Detailed response	105 (96.3)	Q11 Yes	84 (77.1)
No response	4 (3.7)	No	10 (9.2)
		No response	15 (13.8)
Q3 Yes	100 (91.7)	Q12 Yes	53 (48.6)
No	1 (0.9)	No	18 (16.5)
No response	8 (7.3)	No response	38 (34.9)
Q4 Detailed response	98 (89.9)	Q13 Yes	69 (63.3)
No response	11 (10.1)	No	32 (29.4)
		No response	8 (7.3)
Q5 Yes	69 (63.3)	Q14 Yes	23 (21.1)
No	17 (15.6)	No	35 (32.1)
No response	23 (21.1)	No response	51 (46.8)
Q6 Yes	40 (36.7)	Q15 Yes	56 (51.4)
No	67 (61.5)	No	11 (10.1)
No response	2 (1.8)	No response	42 (38.5)
Q7 Yes	10 (9.2)	Q16 Yes	27 (24.8)
No	39 (35.8)	No	42 (38.5)
No response	60 (55.0)	No response	40 (36.7)
Q8 Yes	42 (38.5)	Q17 Yes	37 (33.9)
No	64 (58.7)	No	16 (14.7)
No response	3 (2.8)	No response	56 (51.4)
Q9 Detailed response	42 (38.5)	Q18 Detailed response	79 (72.5)
No response	67 (61.5)	No response	30 (27.5)
		Q19 Detailed response	44 (40.4)
		No response	65 (59.6)

visited each house to deliver our questionnaires.

This study investigates the question "What value do Neighborhood Watch schemes have in protecting children against "stranger danger"? Our results included the accounts of two children

Table 3 Comparison of Neighborhood Watch participant responses with independent assessment of suitability of home

	Score of the Neighborhood Watch houses		P value
	full marks(18)	less than full marks(13-17)	
	(n=31) *	(n=78)*	
Q1 < 1 year	0	2	NS
from 1 to 2 years	0	1	
> 2 years	31	75	
Q3 Yes	3	5	NS
No	27	3	
Q5 Yes	20	49	NS
No	6	11	
Q6 Yes	11	29	NS
No	20	47	
Q7 Yes	2	8	NS
No	13	26	
Q8 Yes	12	30	NS
No	18	46	
Q10 Yes	24	55	NS
No	6	21	
Q11 Yes	26	58	NS
No	5	5	
Q12 Yes	16	37	NS
No	4	14	
Q13 Yes	26	43	0.025
No	5	27	
Q14 Yes	6	17	NS
No	7	28	
Q15 Yes	18	38	NS
No	3	8	
Q16 Yes	5	22	NS
No	13	29	
Q17 Yes	8	29	NS
No	5	11	

*: Numbers may not add up to column totals because of non-responses.

NS: not significant

who experienced the threat of stranger danger and subsequently took refuge in Neighborhood Watch houses. This demonstrates a concrete example of the important role the Neighborhood Watch schemes can play in protecting children from "stranger danger".

Participant residences should display the Neighborhood Watch sticker prominently, for example on the front door or gate leading to the house. However, not all scheme participants displayed the stickers in places where children could easily see them, thereby defeating the purpose of the scheme. In some instances large dogs also inhabited the front yards of participant houses, preventing children from taking refuge there.

Recently, more affluent parents have been able

to turn to professionals who can provide quick and easy services for monitoring the whereabouts of their children. One local telecommunications company has begun marketing a device called "Itsu-mo-Navi" which ensures that a child and her parents are just a phone call apart (available from: <http://www.zmap.net>). The phone has a tracking device that pinpoints a child's exact location on an electronic map. These gadgets might help to locate children in the event of a kidnapping, but they are doing little to restore faith in the safety of Japan's schools (Kitasuka, et al., 2002).

In another situation, a group of parents who were motivated enough to take part in volunteer patrols, boosted the sense of community awareness in their area with the result that the sharing of information between schools, police and community was maximized. Children were left better informed of any dangers or possible dangers in their neighborhood and thus were better able to avoid them (Harada, 2003; 2004).

Our results show a significant relationship between Neighborhood Watch houses which scored full marks and the answers given to Q13 (Houses which scored full marks usually had someone at home during the hours children travel to and from school). Our conclusion is that the most reliable Neighborhood Watch houses are those where the inhabitants are at home during the hours children are traveling to and from school. When we visited Neighborhood Watch houses during our field survey, houses which scored full marks welcomed us and someone was usually at home all day. Forty-eight percent of houses scoring full-marks wrote some additional comments concerning the Neighborhood Watch scheme (Q19) in detail, which indicates perhaps that the hosts have a strong sense of community.

However, we must be careful about this argument, because 77.4 percent of the residents scoring full marks were stores. The period during which stores are open usually incorporates the period during which children travel to and from school, perhaps biasing the results.

We conclude that the ability of children to avoid harm is connected with community awareness and the risk perception of Neighborhood Watch scheme participants. This survey represents a pilot study of the implementation of such schemes. Further studies are currently in progress to investigate the factors involved in assessing the relationship between sense

of community and children’s risk mitigation behavior with a view to establishing a clear set of principles for effective implementation of Neighborhood Watch schemes throughout Matsuyama City.

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- Japanese Association of School Health
- Association of Japanese Clinical Psychology

Appendix No.1

Neighborhood Watch House Questionnaire

1. How long have you been part of the Neighborhood Watch scheme ?

- ① Less than one year ② One to two years
③ More than two years

2. Please write down your reason(s) for joining the Neighborhood Watch Scheme.

()

3. Have any children sought refuge in your house since you joined the Neighborhood Watch scheme?

- ① Yes ② No

4. If you answered "Yes" to question 3, please describe the situation in detail:

()

5. Do you think that Matsuyama has become less safe than it once was?

- ① Yes ② No

6. Are you familiar with the sound of the personal handheld alarms which have been issued to your children ?

- ① Yes ② No

7. While inside your home, do you think you would notice the sound of a personal handheld alarm sounded outside?

- ① Yes ② No

8. Have you made modifications to your home which makes it easier for children to use in the event they need to seek refuge?

- ① Yes ② No

9. If you answered "Yes" to question 8, please describe the situation in detail.

()

10. Do you always leave your gate and front door open so that children can easily enter your house?

- ① Yes ② No

11. In the evening do you always keep a light on at the entrance to your house ?

- ① Yes ② No

12. Do you have a front door intercom in good working order?

- ① Yes ② No

13. Is there usually someone at home during the hours children are traveling to and from school?

- ① Yes ② No

14. In situations where school or the neighborhood is reporting information about suspicious characters are you immediately within reach?

- ① Yes ② No

15. When information about suspicious characters is made public, are you in a position to cooperate with the police and school to protect children?

- ① Yes ② No

16. Do you hope that your house will have a role as a place not only of refuge but also a place where neighborhood children can talk and play?

- ① Yes ② No

17. Do you think your house can play an important role as a shelter for school children in the event of natural disasters (earthquake, flood, etc)?

- ① Yes ② No

18. Please write down the reasons for your answer to question 17 in detail:

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19. Please write any additional comments concerning the Neighborhood Watch scheme.

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Appendix No.2

Neighborhood Watch scheme Checklist

1. The house displays the Neighborhood Watch sticker in a conspicuous and easily visible place.

- ① Yes (2 points) ② No (1 point)

2. The house is easily accessible to children (e.g., does not have a high gate)

- ① Yes (2 points) ② No (1 point)

3. The front gate is always open.

- ① Yes (2 points) ② No (1 point)

4. The house always gives the impression that someone is home.

- ① Yes (2 points) ② No (1 point)

5. The house always has an outdoor light on in the evenings.

- ① Yes (2 points) ② No (1 point)

6. There is easy access to the front of the house, free of parked bikes and cars.

- ① Yes (2 points) ② No (1 point)

7. The outdoor light and front gate are in good working order.

- ① Yes (2 points) ② No (1 point)

8. The house has an easily accessible front entrance (free of impediments).

- ① Yes (2 points) ② No (1 point)

9. The entrance to the house is clearly visible.

- ① Yes (2 points) ② No (1 point)