Citizen participation in the safety domain through neighborhood-WhatsApp-groups: insights in the motivations of citizens

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Abstract

This research was a first exploration gain more insight into the motivations of citizens to participate in neighborhood-WhatsApp-groups and to better understand why and how people became a member, which factors played a role in this decision and if this could be explained by factors at individual, social and institutional level. A survey was used to collect the data and the participants were recruited in several neighborhoods in Delden (Overijssel, The Netherlands) in which a neighborhood-WhatsApp-group existed.

Analysis showed that the psychological factors risk perception, community participation and outcome expectancy played an important role for participating in neighborhood-WhatsApp-groups. This means that citizens were more likely to be a member of a neighborhood-WhatsApp-group if they experienced lower risk perceptions, if they in general participated more in their community and if they were more positive about measures that can be taken to ensure a safer neighborhood (positive outcome expectancies).

For both members and non-members the psychological factor outcome expectancy was an important factor for being a member or becoming a member of a neighborhood-WhatsApp-group and safety reasons were pointed out by citizens as the main reason why they had become or would like to become a member of such a group. As such, to get more citizens to participate in neighborhood-WhatsApp-groups, it is important to point out that participating in these groups contribute to the safety of the neighborhood and to create positive outcome expectancies. Meaning, that citizens have the feeling that participating in neighborhood-WhatsApp-groups works.

Keywords: community policing, citizen initiatives, neighborhood-WhatsApp-groups, community engagement theory, safety domain

Introduction

In the Netherlands there has been a shift from a welfare state to a participation society, in which active citizenship plays an important role. This includes a transition from government to governance, which means a shift from a hierarchical steering government to a government that collaborates with citizens. In such a structure, government and citizens participate together in various networks (Hajer, Van Tatenhove & Laurent, 2004). It also means that citizens are expected to take more responsibility for their life and actively contribute to society (Van Dam, Eshuis & Aarts, 2008). Thus, the government is taking on a more facilitating role and citizens are expected to take more initiative. In the literature terms as self-reliance, citizen participation, responsibility and active citizenship are often cited when defining a participation society.

Citizens can contribute to a participation society in several ways and in different domains (e.g. safety, healthcare). This research will focus on citizen participation in the safety domain, particularly in the context of community policing. In community policing citizens are helping the police by preventing and detecting crimes in their communities (Bullock & Sindall, 2014). Citizens can contribute to community policing in several different ways: (neighborhood) surveillance, detection of suspicious persons/circumstances, care for the public space, conflict mediation, contact promotion between neighbors or between neighbors and the police, information sharing and influencing policy (Boutellier, Van der Land & Van Stokkom, 2014). Much research has been done on citizen participation, community policing and neighborhood initiatives in the safety domain (Gill, Weisburd, Telep, Vitter & Bennett, 2014; Bullock & Sindall, 2014; Van der Wijdeven, 2013; Newman & Tonkens, 2011; Schreurs, Kerstholt & Giebels, 2017). According to Kerstholt, De Vries, Mente and Huis in 't Veld (2015) it is expected that the role of citizens will increase in the future in all areas of the police domain. Citizens can help the police sooner and easier, because of ICT developments that for example allow them to take pictures or make videos, which can help the police to solve a case.

The smartphone application WhatsApp is an example of an ICT development that citizens can use to participate in community policing. The application WhatsApp is a mobile messaging application that allows people to exchange messages, images, videos and audio media messages. People are able to send messages to one person or create groups. Citizens can use the "neighborhood-WhatsApp-group" as a digital neighborhood watch where they can inform each other by sending messages or pictures of suspicious situations, emergencies and crimes. It is an easy way for citizens to participate in the safety domain.

Research of Akkermans and Vollaard (2015) into the effects of neighborhood-WhatsApp-groups, shows that involvement of residents in neighborhood-WhatsApp-groups greatly reduces the number of burglaries. Further, it seems that the decline is prolonged and burglaries do not move to adjacent neighborhoods, however this was not proven. The neighborhood-WhatsApp-groups used in their research were focused on information exchange between residents, police and local authority. Neighborhood-WhatsApp-groups that are used in the safety domain have been mentioned in the media in the last couple of years. A number of groups have shown that neighborhood initiatives like neighborhood-WhatsAppgroup can work well (Gemeente Lelystad, 2016) and according to mister Van der Velden, national project leader burglary of the Dutch National Police, the growth of neighborhood-WhatsApp-groups partly explains the decrease in the number of burglaries (Schoonhoven, 2016).

There are therefore some signs that neighborhood WhatsApp groups can contribute to reduce crimes and to increase safety in neighborhoods. However, there are still many citizens (neighborhoods) who do not contribute to community policing through citizen initiatives like neighborhood-WhatsApp-groups (Bullock & Sindall, 2014). Beside the success of neighborhood-WhatsApp-groups and the lower crime rates, little is known about citizens' motivations to join or to not join neighborhood-WhatsApp-groups. Therefore, this research will focus on underlying psychological mechanisms and reasons why citizens do or do not join a neighborhood-WhatsApp-group. This is relevant, because participation in such groups seems an easy, efficient, safe and inexpensive way to reduce crime and to increase safety in neighborhoods. In order to get more citizens to participate in neighborhood-WhatsApp-groups. The research question is: *Which factors play a role for citizens to join a neighborhood-WhatsApp-group in the safety domain and can this be explained by factors at individual, social and institutional level*?

Multi-level model

There are several factors that may play a role in the decisions of citizens to participate in an initiative like neighborhood-WhatsApp-groups. Paton (2008) describes community engagement in a multi-level model, which explains that the decisions that people make are influenced on individual (e.g. usefulness of behavior), social (e.g. relationship with or

influence by neighbors) and institutional (e.g. trust in police) level. The multi-level-model of Paton (2008) is focused on preparation behavior for a disaster (e.g. tsunami or earthquake). In this study the theory is applied in a different context, namely community policing. The biggest difference with the community engagement theory of Paton (2008) is that this research is about a different type of safety (social safety) and that it is not only focused on prevention (preparation behavior) but also on responsive behavior, as citizens need to respond to a suspicious situation or when a potential crime actually takes place.

According to this multi-level model there are several factors that influence the probability that people will prepare for a disaster or risk. In this research the model will be used to investigate whether factors on these three levels can explain the decisions and motivations of citizens to join a neighborhood-WhatsApp-group. The following factors of Paton (2008) will be used: risk perception, affect, self-efficacy and outcome expectancy on the individual level, sense of community, community participation and collective efficacy on the community level and trust on the institutional level.

In addition to the psychological factors that might influence the decision of citizens to join a neighborhood-WhatsApp-group, citizens may also have other reasons to become a member of a neighborhood-WhatsApp-group, for example simply by being asked. Therefore, citizens will be asked about their main reason to join or to not join a neighborhood-WhatsApp-group. Citizens who already have joined a neighborhood-WhatsApp-group will also be asked about how they became a member of the neighborhood-WhatsApp-group.

Individual level: risk perception, affect, self-efficacy and outcome expectancy

A risk is a combination of the probability that a specific event occurs and its consequences. These consequences mostly have a negative impact on the health, safety or wellbeing of people (e.g. illness, financial loss, environmental impacts) (Slovic & Weber, 2002). Pidgeon, Hood, Jones, Turner and Gibson (1992) define risk perceptions as: "people's beliefs, attitudes, judgments and feelings, as well as the wider social or cultural values and dispositions that people adopt, towards hazards and their benefits" (p.89). Risk perception is subjective; it can differ per person (e.g. men-woman, culture, expert-lay people) (Slovic et al., 2002) and people with higher risk perceptions are more likely to take protective measures (Paton, Burgelt & Prior, 2008). In this research risk perception is about the probability that a criminal activity in the neighborhood would occur and how likely the consequences are.

When a risk is judged by feelings it is called the affect heuristic (Finucane, Alhakami, Slovic & Johnson, 2000). According to Slovic and Peters (2006) people perceive risk in two

ways: risk as feelings and risk as analysis. Risk as feelings are instinctive and intuitive reactions to risks, while risk analysis refers to logic, reason and scientific considerations. Further, they indicated that people mostly handle fast and automatically by feelings when confronted with a risk. People are likely to use an affect heuristic when they have to make a decision. The way people feel (their affect) toward something (e.g. person, object or activity) influences the decisions people eventually make (Finucane, Alhakami, Slovic & Johnson, 2000). The perceived risk and perceived benefit of e.g. an object or activity are related to the strength of positive or negative affect that people associate with that particular object or activity (Alhakami & Slovic, in Slovic, Finucane, Peters & MacGregor, 2004). People do not only base their judgment on what they think about a person, object or activity, but also on how they feel about that certain person, object or activity. People are likely to judge risks as low and benefits as high when their feelings are favorable towards it. In contrast, if their feelings towards something are unfavorable they tend to judge the risks as high and benefits as low (Finucane, Alhakami, Slovic & Johnson, 2000; Slovic, Finucane, Peters & MacGregor, 2004). In this research affect is about how citizens would feel when they think about the probability that a criminal activity would occur in their neighborhood.

Self-efficacy is the estimation of a person about his or her competences to perform on a certain task (De Vries, Dijkstra & Kuhlman, 1988). If persons do not perceive themselves as capable to perform the adaptive response, they are less likely to formulate intentions to act on a risk (Paton, 2003; Paton, Smith & Johnston, 2005). In this research self-efficacy is about the estimation or perceived ability of a citizen about his or her competences needed to join and be a member of a neighborhood-WhatsApp-group.

People can have positive or negative outcome expectancies. Paton (2008) proposes that taking protective measures starts with outcome expectancy beliefs. If people are negative about the outcome, this decreases the probability of accepting and implementing protective measures and if people believe that their actions can improve personal safety and/or decrease consequences it can motivate people to prepare. Floyd, Prentice-Dunn and Rogers (2000) use the term response efficacy and describe it as the faith people have in their adaptive response, and to what extent they believe that the response will be effective in protecting themselves or others. In this research outcome expectancy is about measures that can be taken regarding a safer neighborhood and to which extent these measures are effective (e.g. becoming a member of a neighborhood-WhatsApp-group).

Community (social) level: sense of community, collective efficacy and community participation

Sense of community involves feelings of belonging, the belief that persons in a group matter to each other and to the group, and a shared belief among the members that the needs of all members will be met (McMillan & Chavis, 1986). Attachment in a community can lead to collective action like voluntary participation (Ryan, Agnitsch, Zhao & Mullick, 2005). According to Denters and Van Heffen-Oude Vrielink (2004) close neighborhood ties lead to willingness of residents to tackle neighborhood problems and it also contributes to residents who better cooperatively address neighborhood problems. Furthermore, sense of community is an important factor to predict preparation behavior of people (Paton, Johnston, Smith & Millar, 2001). When outcome expectancies of a risk or disaster are uncertain, people tend to ask other people for advice or information (Paton, Okada & Sagala, 2013).

Collective efficacy was defined by Bandura (1997) as: "a group's shared beliefs in its conjoint capabilities to organize and execute the course of action required to produce given levels of attainments" (p. 477). According to Sampson, Raudenbush and Earls (1997) collective efficacy is defined as a combination of social cohesion between neighbors and the willingness to intervene on behalf of the common good. Sampson (2006) adds that collective efficacy can refer to the shared expectations people have for social action. Collective efficacy in this research is about the extent to which citizens have the feeling that they are able to collectively make decisions, solve any problems and increase safety in the neighborhood.

Community participation is the involvement of persons in activities of planning, governance and developing plans/programs at local level (Williams, 2007). According to Becker et al. (2011) community participation is the degree of active involvement of people in a community. Citizens contribute to developing and accomplishing the community goals through community participation. There are several ways to participate in a community, for example offering social support, time, money or resources to community activities or helping in a local group. Further, community participation has some benefits: it can help people to obtain new information, learn new competences, make new social contacts, to be personally involved in important matters, issues and progresses and build a sense of pride (Becker et al., 2011). In this research community participation will be used to measure and to get insight into how active people in general are in their community to predict participation in neighborhood-WhatsApp-groups.

Institutional level: trust

Trust can affect how citizens and community groups perceive the motives, actions, information and resources from other persons, agencies and societal institutions (Paton, 2007). People perceive organizations (e.g. the police) as more trustworthy when these organizations are acting in the interest of the community (Paton & Bishop, 1996; Paton, in Paton, Smith, Daly & Johnston, 2008). Trust can also affect the choices people make in an uncertain situation (Becker, Paton & Johnston, 2015), as people are more inclined to follow up on advice or take some sort of action when they trust the source where the information came from (Cole & Fellows, 2008). People are more motivated to prepare on a risk if they trust the source were information comes from (Paton, Smith, Daly & Johnston, 2008). Further, trust plays a role in effective interpersonal relations, group processes and societal relationships. The quality of the relationship a citizen or community has with a societal institution (e.g. police) influences the degree of trust community members have in societal institutions. The experiences of an individual with agencies or institutions can be a measure for subjective trust or suspicion (Paton, 2007). In this research trust is about the extent citizens trust the police in having the knowledge to cope with crime, informing citizens on time and giving the right advice to citizens.

Research question and expectations

This research will be a first exploration to gain more insight in the motivation of citizens to better understand why and how people become a member of a neighborhood-WhatsAppgroup. It will be conducted among citizens in several neighborhoods with neighborhood-WhatsApp-groups in Delden (Overijssel, The Netherlands). The research question is: *Which factors play a role for citizens to join a neighborhood-WhatsApp-group in the safety domain and can this be explained by factors at individual, social and institutional level?*

It is expected that the psychological factors on social level (sense of community, collective efficacy and community participation) have the most influence on the choice to become a member, because neighborhood-WhatsApp-groups are social initiatives (citizens do it together with their neighbors). It is expected that people who score higher on the social factors are more likely to join a neighborhood-WhatsApp-group.

Method

Participants

In total 214 people have participated voluntary in this research. The participants were recruited in several neighborhoods in Delden (Overijssel, The Netherlands) in which a neighborhood-WhatsApp-group existed. Of the 214 participants 86 participants were members of a neighborhood-WhatsApp-group and 128 participants were not (yet) members of a neighborhood-WhatsApp-group.

Of the 86 participants who were a member of a neighborhood-WhatsApp-group 38 participants were male (44.2%) and 48 were female (55.8%). Their average age was 56.9 (SD = 12.8) and average number of years they lived in the neighborhood was 18.5 years (SD = 9.8). The highest level of education of the majority was higher education (66.3%).

Of the 128 participants who were not a member of such a group 60 participants were male (46.9%) and 68 were female (53.1%). Their average age was 56.9 years (SD = 13.1) and the average number of years they lived in the neighborhood was 21 years (SD = 10.4). The highest level of education of the majority was higher education (49.2%) and middle-level applied education (MBO, 12.8%). As can be seen, there is a difference in education between members and non-members; members are higher educated than non-members.

Of the 128 participants who were not a member 94 persons would like to become a member. An overview of this data can be found in table 1.

Variables	Member of a neighborhood-WhatsApp-	Not a member of a neighborhood-WhatsApp-
	group	group
Gender (N)		
Male	38 (44.2%)	60 (46.9%)
Female	48 (55.8%)	68 (53.1%)
Total	86 (100%)	128 (100%)
Age (years)		
Mean (SD)	56.9 (12.8)	56.9 (13.1)
Range	30-81	21-83

Table 1. Demographic data

Continuation

Variables	Member of a neighborhood-	Not a member of a
	WhatsApp-group	neighborhood-WhatsApp-group
Live in neighborhood (years)		
Mean (SD)	18.5 (9.8)	21 (10.4)
Range	1-38	1-49
Education (%)		
Basic education	1.2%	0.8%
VMBO	3.5%	15.6%
HAVO	7%	5.5%
VWO	7%	3.9%
MBO	12.8%	24.2%
HBO	41.9%	36.7%
WO	24.4%	12.%
Other	1.4%	0.8%

Method

A quantitative research method is used to collect the data. The chosen research method is a survey questionnaire, which is conducted among citizens in several neighborhoods in Delden. A survey questionnaire can be used to collect information about characteristics, actions or opinions of many people (Pinsonneault & Kreamer, 1993). According to Verhoeven (2010) surveys are one of the most commonly used methods to measure opinions, attitudes and knowledge of large groups of people. Segers (1999) adds that a survey is a good way to research experiences, preferences and motives of people and other subjective phenomena. The participants were asked about psychological aspects (see the section about instrument and measures), their membership, main reason to join or to not join a neighborhood-WhatsAppgroup, contact with neighbors and experience with nuisance or unsafe situations in their neighborhood.

Procedure

Participants were recruited in several neighborhoods in Delden with neighborhood-WhatsApp-groups. Some neighborhoods alert other people of their neighborhood-WhatsAppgroup through a sign (which looks like a traffic sign) or by signing up their group on the website www.wadp.nl. In the local newspaper of Delden there was an ad about neighborhood-WhatsApp-groups that were established in Delden. In this way the researcher found the neighborhoods with neighborhood-WhatsApp-groups and the participants were recruited by going from door to door and by asking the residents if they wanted to participate. Between 17:30 and 20:30 hours in the evening the researcher went by the houses in several neighborhoods. These times were chosen because of the high chance that respondents would be at home. If people agreed to participate in the research, the questionnaire was left behind and an appointment was made to pick up the questionnaire at a later time.

Instrument and measures

In this research the existing questionnaire of Paton (2013) was used to explore if psychological factors, on individual, social and institutional level, played a role for citizens to participate in neighborhood-WhatsApp-groups. The items were adapted to the context of this research. The questionnaire that was used for this research can be found in Appendix A. The items were measured on a five-point Likert scale (e.g. strongly disagree to strongly agree). Additionally, items were added to the survey to measure affect, which were also measured on a five-point Likert scale (e.g. not at all, barely, somewhat, quite, very much).

In addition to the psychological constructs, which might influence the decision of citizens to join a neighborhood-WhatsApp-group, citizens may also had other underlying reasons to become a member and therefore the questionnaire also included a few open questions.

Finally, to gain insight into the research population there were a few items in the questionnaire about demographic characteristics such as gender, age, education level, etc. (as can be seen in table 1). Participants were asked to fill in an informed consent before they could participate in the research. Participants were also asked if they wanted to stay informed about this research. Participants who wanted to stay informed could voluntarily choose to note their e-mail address. The researcher debriefed participants by e-mail about the results of this research.

Dependent and independent variables

The dependent variable in this research is membership (member or non-member of a neighborhood-WhatsApp-group). Citizens were asked if they were a member of a neighborhood-WhatsApp-group (answer options: yes/no).

The independent variables in this research are risk perception, affect, self-efficacy, outcome expectancy, sense of community, collective efficacy, community participation and trust. The eight variables each have four to ten items. All items were measured on a five-point Likert scale (e.g. strongly disagree to strongly agree or not at all to very much). The independent variables were measured on individual, social and institutional level. Table 2 on the next page shows an overview of these variables on individual, social and institutional level along with an example item. Further, table 2 shows the mean scores, standard deviation and the Cronbach's alpha of the various scales. Generally, a scale with a value higher than .70 is considered reliable (George & Mallary, 2003). As can be seen all variables have a Cronbach's alpha >.70, which means that the items of the various scales probably measure the same concept.

Additional questions

Beside the psychological constructs, that can influence the decision of citizens to join a neighborhood-WhatsApp-group, citizens may also have other reasons to become a member. Therefore citizens were asked about what their main reason was to join or to not join a neighborhood-WhatsApp-group (open question). Citizens who had already joined a neighborhood-WhatsApp-group were asked about the most important reason why they became a member of this group and how they became a member. Citizens who were not a member of a neighborhood-WhatsApp-group were asked if they would like to become a member of a neighborhood-WhatsApp-group (yes/no) and what the most important reason would be to become or not to become a member of a neighborhood-WhatsApp-group.

Furthermore, to get more insight into existing neighborhood-WhatsApp-groups there were a few questions added to the questionnaire for citizens who already joined a neighborhood-WhatsApp-group. These participants were asked about 1) what the main purpose is of their neighborhood-WhatsApp-group (multiple-choice), 2) how active they are in the group (five-point Likert scale: e.g. passive to active) and 3) if the police officer is joining the group (yes/no). The multiple-choice answer options of the first question were 'safety of neighborhood', 'provide care', 'social activities/contacts' or 'different'. The answer option 'different' allowed participants to write down and explain their answer.

Finally, there were two questions added to the questionnaire about contact with the neighbors and experience with nuisance or unsafe situations in their neighborhood (both on a five-point Likert scale). The first question was '*How do you rate the contact with the neighbors in general*?' (e.g. very unpleasant to very pleasant). The other question was '*How*

much experience do you have with nuisance or unsafe situations in your neighborhood?' (e.g. no experience to much experience). These questions were added to the questionnaire because neighborhood-WhatsApp-groups are social initiatives in the safety domain and these two aspects (experience with nuisance or unsafe situations and contact with neighbors) might play a role in or have influence on the choice to become a member or not.

Level	Variable	Example	Items (N)	α	Mean (SD)
	Risk perception	To what extent do you consider that you will			
		become a victim of a crime in your	10	.817	2.6 (0.6)
		neighborhood?			
	Affect	How do you feel (e.g. tense, fearful, worried,			
Individual		angry, unsafe, hopeless, pessimistic) when you	6	.911	2.7 (0.8)
		think about the possibility a crime will occur in			
		your neighborhood?			
	Self-efficacy	I am able to participate in a neighborhood-			
		WhatsApp-Group.	6	.722	3.8 (0.6)
	Outcome expectancy	Participation in a neighborhood-WhatsApp-			
		group can increase the safety in the	5	.814	3.9 (0.5)
		neighborhood.			
	Sense of community	My neighbors would help me in an emergency.	5	.749	4.1 (0.6)
	Collective efficacy	We can improve the quality of life in the	6	.829	3.7 (0.5)
Social		neighborhood, even when resources are scarce.			
	Community participation	I have worked with others to improve community	5	.738	2.4 (0.8)
		life.			
Institutional	Trust	I trust the police to meet the needs of the	5	.897	3.7 (0.6)
		residents of this neighborhood.			

Table 2. Overview independent variables, example items and Cronbach's Alpha reliability analysis

Results

Descriptive statistics

To get more insight into the population and existing neighborhood-WhatsApp-groups a few descriptive statistics were conducted. Most participants assessed contacts with their neighbors as pleasant or very pleasant and a minority assessed these contacts as neutral. Furthermore, people who were not members of a neighborhood-WhatsApp-group answered more often that they had no experience with nuisance or unsafe situations in their neighborhood than people who were members of a neighborhood-WhatsApp-group.

Variables	All participants	Members	Non-members	
Evaluation contact				
neighbors				
Mean (SD)	4.3 (0.7)	4.3 (0.7)	4.2 (0.7)	
Range	3-5	3-5	3-5	
Experience with nuisance				
Mean (SD)	1.7 (0.9)	1.6 (0.9)	0.9 (1.9)	
Range	1-5	1-5	1-5	

Table 3. Overview evaluation contact with neighbors and experience with nuisance or unsafe experience in neighborhood

The purpose of the existing neighborhood-WhatsApp-groups is mainly (97.7%) to monitor the safety in the neighborhood and a minority (2.3%) of the groups is used for social purposes. Of the 86 persons who were a member of such a group 36% indicates that the police officer is a member of the group, 31.4% indicates that the police officer is not a member of the group and 32.6% indicates that they do not know if the police officer is a member of the group. Further, 82.6% of the members of neighborhood-WhatsApp-groups were asked by someone to become a member of the group, 7% of the members had established a neighborhood-WhatsApp-group themselves, 5.8% of the members had asked if they could become a member and 4.7% indicates that there was another explanation how they became a member. Finally, of the 128 persons, who were not a member of neighborhood-WhatsApp-groups, 94 persons (73.4%) indicate that they would like to become a member.

Correlation analysis

Correlations, means and standard deviations between all variables are shown on the next page in table 4. The correlations between the dependent variable and independent variables will be discussed here. The Spearman Rho correlation analysis showed positive correlations between membership and self-efficacy ($R_s = .24$, p < .01), outcome expectancy ($R_s = .29$, p < .01), collective efficacy ($R_s = .19$, p < .01), community participation ($R_s = .44$, p < .01), education ($R_s = .21$, p < .01) and experience with nuisance or unsafe situations ($R_s = .21$, p < .01). Positive correlations mean that higher values on one variable (membership) go together with higher values on the other variable (self-efficacy, outcome expectancy, collective efficacy, community participation, education and experience with nuisance or unsafe situations).

Variables	М	SD	1	2	3	4	5	6	7	8
1. Member	1.4	0.5	-							
2. Risk perception	2.6	0.6	039	-						
3. Affect	2.7	0.8	051	.399**	-					
4. Self efficacy	3.8	0.6	.242**	.017	104	-				
5. Outcome expectancy	3.9	0.5	.285**	.149*	.106	.340**	-			
6. Sense of community	4.1	0.6	.055	101	032	.146*	.259**	-		
7. Collective efficacy	3.7	0.5	.185**	064	.011	.350**	.384**	.499**	-	
8. Community participation	2.4	0.8	.436**	.116	.060	.341**	.382**	.286**	.510**	-
9. Trust	3.7	0.6	.034	096	028	.149*	.159*	.139*	.232**	0.53
10. Age	57	12.9	037	.018	.065	415**	051	.097	081	059
11. Gender	1.5	0.5	.026	.169*	.200**	.030	094	021	069	124
12. Education	6.2	1.6	.208**	037	146*	.234**	.120	.096	.094	.160*
13. Years in neighborhood	20	10.2	127	.105	.183**	201**	.032	.180**	.014	093
14. Review neighborhood contact	4.3	0.7	044	101	106	.085	.104	.615**	.378**	254**
15. Experience with nuisance or	1.7	0.9	.210**	.230**	.045	.001	.085	045	023	.090
unsafe situations in neighborhood										

Table 4. Correlations between all variables

Table 4. Correlation between all variables

Continuation

Variables	9	10	11	12	13	14	15
9. Trust	-			<u> </u>	<u> </u>		
10. Age	144*	-					
11. Gender	001	206**	-				
12. Education	.025	125	198**	-			
13. Years in neighborhood	042	.475**	005	246**	-		
14. Review neighborhood contact	.145*	.010	.007	.072	001	-	
15. Experience with nuisance or	167*	.009	024	.175*	065	105	-
unsafe situations in neighborhood							

Note. *p < .05, ** p < .01

Difference between the two groups: members and non-members

Before conducting the statistical hypothesis tests the Kolomogorov-Smirnov test and the Shapiro-Wilk test for normality were conducted to explore whether the data was normally distributed. As can be seen in table 5 the results from the tests show that the data is not normally distributed (p < 0.05) except for the variable risk perception, which is normally distributed (p > 0.05).

	Kolmogorov-Smirnov ^a			Shapiro-W	Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.	
Risk perception	.061	214	.051	.992	214	.299	
Affect	.075	214	.006	.979	214	.003	
Self Efficacy	.121	214	.000	.965	214	.000	
Outcome Expectancy	.185	214	.000	.951	214	.000	
Sense of community	.131	214	.000	.962	214	.000	
Collective efficacy	.121	214	.000	.967	214	.000	
Community participation	.074	214	.006	.976	214	.001	
Trust	.184	214	.000	.905	214	.000	

Table 5. Test of Normality

^a. Lilliefors Significance Correlation

Non-parametric tests were chosen, because the data was not normally distributed. The Mann-Whitney U-test was conducted to compare the two groups: members of neighborhood-WhatsApp-groups and non-members of neighborhood-WhatsApp-groups. As can be seen in table 6 there is a significant difference between members and non-members of neighborhood-WhatsApp-groups on the variables self-efficacy, outcome expectancy, collective efficacy and community participation. Members score higher on these variables than non-members. Regarding risk perception, affect, sense of community and trust the test shows no significant differences between members.

Table 6. Comparison o	f independent variables i	between members and	non-members
	,		

	Mean rank	Mean rank no	Mann-Whitney	Sig.
	members	members	U	
Risk perception	104.6	109.5	5252.5	.579

	Mean rank	Mean rank no	Mann-Whitney	Sig.
	members	members	U	
Affect	103.7	110.1	5177.5	.461
Self Efficacy	125.7	95.3	3941	.000
Outcome Expectancy	128.6	93.3	3689	.000
Sense of community	111.6	104.7	5151	.423
Collective efficacy	121.3	98.2	4315.5	.007
Community participation	140.3	85.5	2686.5	.000
Trust	110	105.8	5290	.624

Table 6. Comparison of independent variables between members and non-membersContinuation

Psychological variables and membership

A logistic regression analysis was conducted to check the influence of the psychological factors (independent variables) on membership (dependent variable). The Nagelkerke's R² suggests that the model with the dependent variable membership and independent variables risk perception, affect, self efficacy, outcome expectancy, sense of community, collective efficacy, community participation and trust predicts 33% of the variation in outcome. Table 7 shows the results of the logistic regression analyses model. Outcome expectancy and community participation have a positive influence on membership. The results suggest that people who score higher on outcome expectancy and community participation were more often a member of a neighborhood-WhatsApp-group. Risk perception is marginally significant, which suggests that people who score lower on risk perception were more often a member of a neighborhood-WhatsApp-group.

-	-		-			
Variable	В	S.E.	Wald	df	Sig.	Exp (B)
Risk perception	630	.325	3.761	1	.052	.533
Affect	116	.212	.298	1	.585	.891
Self efficacy	.525	.324	2.361	1	.124	1.691
Outcome expectancy	.928	.419	4.919	1	.027	2.530
Sense of community	440	.350	1.679	1	.209	.644
Collective efficacy	623	.505	1.523	1	.217	.536

Table 7. Overview of variables that predict membership

Variable	В	S.E.	Wald	df	Sig.	Exp (B)
Community participation	1.498	.294	26.010	1	.000	4.471
Trust	183	.279	.428	1	.513	.833

Table 7. Overview of variables that predict membership

Psychological variables and level of activity

Continuation

To see if the psychological variables influence how active members are in a neighborhood-WhatsApp-group a linear regression analysis was conducted. This analysis showed no significant results, which suggests that none of the psychological factors influences how active members were in neighborhood-WhatsApp-groups (see table 8). Members in general were not that active in a neighborhood-WhatsApp-group as can be seen in table 9.

	Unstanda	Unstandardized		Standardized		
	Coefficie	nts	Coefficie	Coefficients		
	В	S.E.	Beta	t	Sig.	
Risk perception	331	.248	166	-1.333	.186	
Affect	.008	.155	.006	.051	.959	
Self efficacy	.292	.293	.121	.998	.322	
Outcome expectancy	.354	.327	.130	1.083	.282	
Sense of community	.150	.256	.079	.587	.559	
Collective efficacy	.042	.360	.019	.118	.906	
Community participation	.323	.212	.207	1.523	.132	
Trust	400	.221	217	-1.807	.075	

Table 8. Result of linear regression analysis

Table 9. Overview member activity in neighborhood-WhatsApp-groups

Evaluation	N	%
Very passive	23	26.7
Passive	25	29.1
Neutral (passive/active)	25	29.1
Active	9	10.5
Very active	4	4.7

Psychological variables and willingness of non-members to become members

Citizens who were not (yet) a member of a neighborhood-WhatsApp-group were asked if they would like to become a member of a neighborhood-WhatsApp-group (yes/no). A logistic regression analysis was conducted to see if the psychological variables affect the choice of people who were not a member but did want to become a member of a neighborhood-WhatsApp-group. The Nagelkerke's R² suggests that the model with the dependent variable no/not yet members and independent variables risk perception, affect, self efficacy, outcome expectancy, sense of community, collective efficacy, community participation and trust predicts 39% of the variation in outcome. Table 10 shows the results of the logistic regression analyses model. Risk perception and outcome expectancy had a positive influence on the choice of people who were not a member but did want to become a member of a neighborhood-WhatsApp-group. The results suggest that people in this group with a higher score on risk perception and outcome expectancy were more willing to become a member of a neighborhood-WhatsApp-group.

Variable	В	S.E.	Wald	df	Sig	Exp (B)
Risk perception	1.042	.491	4.509	1	.034	2.835
Affect	133	.330	.164	1	.686	.875
Self efficacy	.474	.426	1.239	1	.266	1.607
Outcome expectancy	2.458	.687	12.799	1	.000	11.677
Sense of community	.067	.536	.016	1	.901	1.069
Collective efficacy	140	.784	.032	1	.858	.869
Community participation	.000	.416	.000	1	.999	1.000
Trust	476	.401	1.409	1	.235	.621

Table 10. Overview of variables that predict why no members would like to become members

Main reasons of citizens for membership

Participants were asked about what their main reason was to join or to not join a neighborhood-WhatsApp-group (open question). Before analyzing the data, the researcher has coded all the answers, so that the data could be analyzed in SPSS. A second coder coded 75 of the 214 questionnaires. After this a Cohen's Kappa analyses was conducted for the 75 questionnaires in SPSS to calculate the inter-rater reliability. The inter-rater reliability was 0.954, which means that the agreement between de two coders was good.

Main reasons of members of neighborhood-WhatsApp-group

Of the participants who are already members of a neighborhood-WhatsApp-group, the majority of the participants stated that their main reason for membership was the safety of the neighborhood (48.1%). An overview of the reasons the participants gave is shown in table 11. Examples of answers participants gave (translated from Dutch):

'Safety in neighborhood', 'More safety in neighborhood', 'For overall safety', 'Safety in the streets' and 'Together making the neighborhood more safe'

Respons	es	N	Percent
Safety		51	48.1%
Prevent	on	14	13.2%
Social c	ontrol	9	8.5%
Informi	ng each other	9	8.5%
Other re	ason	7	6.6%
Social a	spects	6	5.7%
Feelings	of safety	5	4.7%
Unsafe	experience	2	1.9%
Contact	and/or accessibility of neighbors	1	0.9%
WhatsA	pp-messenger is an easy/handy tool	1	0.9%
Reason	unknown	1	0.9%
otal		106	100%

Table 11. Reasons of members why they became a member

Main reasons of participants who are non-members to become members

Of the participants who were not (yet) members of a neighborhood-WhatsApp-group, but would like to become members of such a group, 46% of the participants stated that their main reason was the safety of the neighborhood. An overview of the reasons the participants gave is shown in table 12. Examples of answers participants gave (translated from Dutch):

'Safety in my neighborhood', 'Safety considerations', 'Keeping the neighborhood safe', 'Safety in neighborhood, signaling and passing on unusual situations' and 'Safety – burglary prevention'.

	Responses	Ν	Percent
	Safety	57	46%
	Informing each other	18	14.5%
	Feelings of safety	9	7.3%
	Social control	9	7.3%
	Social aspects	6	4.8%
	Prevention	6	4.8%
	Only for relevant information and/or for correct use of the group	5	4%
	Contact and/or accessibility of neighbors	4	3.2%
	Not yet the right resources or contacts	4	3.2%
	Other reasons	4	3.2%
	Reason unknown	1	0.8%
Total		124	100%

Table 12. Reasons of non-members who would like to become a member

Main reasons of participants who are non-members and do not want to become members Of the participants who do not want to become members of a neighborhood-WhatsAppgroup, 32.4% of the participants perceived membership as irrelevant or unnecessary for their neighborhood and 11.8% do not have the right resources to join such a group. An overview of the reasons the participants gave is shown in table 13. Examples of answers participants gave (translated from Dutch):

'No need of', 'More safety in neighborhood', 'I do not think it is necessary in this neighborhood', 'Not in possession of an iPhone' and 'Not in possession of a smartphone'.

Responses	N	Percent
No interest or unnecessary	11	32.4%
Not the right resources	4	11.8%
Already using other resources	3	8.8%
Reason unknown	3	8.8%
Privacy	2	5.9%
Irrelevant information on or incorrect use of the group	2	5.9%

Table 13. Reasons of non-members who do not want to become members

Table 13. Reasons of non-members who do not want to become members

Contini	lation		
	Does not know how such a group or WhatsApp works	1	2.9%
	Other reason*	8	23.5%
Total		34	100%

*The category 'other reasons' is very broad and because of that the exact answers of participants can be found in Appendix B

Discussion

This research was a first exploration to get more insight into the motivations of citizens to join neighborhood-WhatsApp-groups and to better understand why and how people became a member, which factors played a role in this decision and if this could be explained by factors at individual, social and institutional level. The findings of this research can partly be explained through existing theories but also contribute to them.

On individual level, the psychological factors risk perception and outcome expectancy had an influence on membership. People were more often a member of a neighborhood-WhatsApp-group when they had lower risk perceptions (this was marginally significant). This is not in line with the theory of Paton, Burgelt and Prior (2008), which states that people who have a higher risk perception are more likely to take protective measures. A possible explanation could be that members experience lower risk perceptions because of their membership in such a group. In other words, they might feel that, because of their membership, it is less likely that a criminal activity would occur in the neighborhood. Further, positive outcome expectancies played an important role when it came to being a member of a neighborhood-WhatsApp-group. This means that people were more often a member of neighborhood-WhatsApp-group when they were more positive about measures that can be taken to ensure a safer neighborhood. This is in line with the multi-level-model of Paton (2008), which states that if people are positive about the outcomes it increases the probability of accepting and implementing protective measures and that if people believe that their action can improve personal safety it can motivate people to prepare.

On social level, community participation had an influence on membership. Becker et al. (2011) state that community participation is the degree of active involvement of people in a community. This study shows that people who in general participated more in their community were more likely to be a member of a neighborhood-WhatsApp-group. Moreover, it should also be mentioned that the majority (83%) of the participants were asked by someone to join a neighborhood-WhatsApp-group. These results could perhaps be explained by the fact that community participation has some benefits such as obtaining new information, making new social contacts and personally being involved in important matters, issues and progresses (Becker et al., 2011). So, it might be that that citizens who in general participate more in their community enjoy those benefits: they might have a bigger social network and therefore were more likely to be asked to join the neighborhood-WhatsApp-groups.

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The psychological variable trust on institutional level had no influence on membership. Perhaps this could be explained by the difference in context between this study and the multi-level-model of Paton (2008). The multi-level model (Paton, 2008) is focused on physical safety, while this research is about social safety. When it comes to physical safety, trust in institutions plays an important role, because people in this kind of situations (e.g. earthquake, tsunami) usually depend on professionals (e.g. for information and resources). However, this is not the case in this study. This study is about a citizen initiative and citizen participation in the domain of social safety, whereby citizens are trying to prevent or detect suspicious persons/situations and/or possible crimes in their neighborhood. Thus, this study is about what citizens themselves are doing to make their neighborhood safe(r) and perhaps therefore trust in the police did not play a role.

Furthermore, information was gathered about existing neighborhood-WhatsAppgroups. Most groups were established to monitor the safety in the neighborhood and the majority of members was asked by someone to become a member of a neighborhood-WhatsApp-group. Moreover, safety and prevention were the main reasons why members joined the neighborhood-WhatsApp-group. None of the psychological factors had an influence on how active members were in neighborhood-WhatsApp-groups. This may be explained by the fact that members in general were not that active in their neighborhood-WhatsApp-group. As all participants gave almost the same answer there was not a lot of variation.

Additionally, a few explorative analyses were conducted to see if the psychological factors had an influence on the choice of non-members to become a member of a neighborhood-WhatsApp-group. For non-members the psychological factor outcome expectancy also played an important role when it came to the willingness to become a member of a neighborhood-WhatsApp-group. Non-members were more likely to become a member of a neighborhood-WhatsApp-group when they were more positive about measures that can be taken to ensure a safer neighborhood (positive outcome expectancies). So, to motivate non-members to join a neighborhood-WhatsApp-group it is important to create positive outcome expectancies. Further, non-members were more likely to become a member of neighborhood-WhatsApp-group when they perceived a higher risk perception. High risk perceptions might be a reason for non-members to become a member of a neighborhood-WhatsApp-group as a tool to reduce the risk of criminality in the neighborhood. Lastly, the main reasons of non-members to become a member set of non-members and to inform each other.

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This study also had a few limitations. First, in this study two groups were compared (members and non-members), but it has not been taken into account that psychological variables might change, because people were members of a neighborhood-WhatsApp-group. In future research a pretest-posttest research design could be used to see if psychological variables change when people become members of such a group. Furthermore, all the participants in this study were from Delden (Overijssel, The Netherlands), so the reader should keep in mind that the results cannot be generalized to all neighborhoods with neighborhood-WhatsApp-groups.

Implications

Present insights into citizens' motivations to join or to not join a neighborhood-WhatsAppgroup, have some implications to get more citizens to participate in community policing through the use of neighborhood-WhatsApp-groups. The results of this research showed that the psychological factor outcome expectancy was an important factor when it comes to being a member or becoming a member of a neighborhood-WhatsApp-group and safety reasons were pointed out by citizens as the main reason why they had become or would like to become a member of such a group. Thus, to get more citizens to participate in neighborhood-WhatsApp-groups it is important that citizens have the feeling that participating in neighborhood-WhatsApp-groups works (positive outcome expectancies) and that such groups can contribute to a safe(r) neighborhood.

To have positive outcome expectancies of neighborhood-WhatsApp-groups, it might be useful to present facts about the positive effects of neighborhood-WhatsApp-groups (such as the decline of burglaries in neighborhoods where residents participate in such a group) and to give examples of municipalities in the Netherlands that indicate that citizen participation in neighborhood-WhatsApp-groups can contribute to a safer neighborhood. Further, statistics can be presented to give an indication of the number of neighborhood-WhatsApp-groups that already exist in the area in the safety domain. To create positive outcome expectancies, it also might help if one knows what to do and what is expected. In this case it might be useful if one knows how to become a member of such a group (or how to create such a group) and what is expected of you as a member (e.g. keeping an eye on the neighborhood, informing neighbors if there are suspicious circumstances). For example, an information folder or a webpage on the website of municipalities can be created to present facts, statistics and information about neighborhood-WhatsApp-groups and instructions about how to become a member of such a group or how to create such a group. In sum, citizens who in general participate more in their community were more likely to be a member of a neighborhood-WhatsApp-group. Moreover, it seems that positive outcome expectancies and safety reasons played an important role when it came to being a member or being willing to become a member of a neighborhood-WhatsApp-group. Thus, when promoting community policing and neighborhood initiatives like neighborhood-WhatsApp-groups it is important to create positive outcome expectancies and to emphasize that neighborhood-WhatsApp-groups can contribute to a safer neighborhood. Further, for municipalities it might be useful to try to increase citizen participation, because people who in general participate more in their community are also more likely to participate in other initiatives.

References

- Akkermans, M., & Vollaard, B. (2015). *Effect van het WhatsApp-project in Tilburg op het aantal woninginbraken een evaluatie*. Tilburg: Tilburg University
- Bandura A. (1997). *Self-Efficacy: The Exercise of Control*. New York: W.H. Freeman and Company
- Becker, J. S., Johnston, D. M., Daly, M. C., Paton, D., Mamula-Seadon, L., Petersen, J.,
 Hughes, M. E., & Williams, S. (2011). *Building community resilience to disasters: A practical guide for the emergency management sector*. Lower Hutt: GNS Science
- Becker, J., Paton, D., & Johnston, D. (2015). *Communication of Risk: A community resilience perspective*. Lower Hutt: GNS Science
- Boutellier, J. C. J., Land, M. van der, & Stokkom, B. A. M. van (2014). *Burgers in veiligheid: een inventarisatie van burgerparticipatie op het domein van sociale veiligheid*. Den Haag: WODC, Ministerie van Veiligheid en Justitie
- Bullock, K., & Sindall, K. (2014). Examining the nature and extent of public participation in neighbourhood policing. *Policing and Society*, *24*(4), 385-404. doi:10.1080/10439463. 2013.844130
- Cole, T. W., & Fellows, K. L. (2008). Risk Communication Failure: A Case Study of New Orleans and Hurricane Katrina. *Southern Communication Journal*, 73(3), 211-228. doi:10.1080/10417940802219702
- Dam, R. I. van, Eshuis, J., & Aarts, M. N. C. (2008). Zelforganisatie. Een studie naar gemeenschapsvorming in de Amsterdamse Doe-het-Zelf Maatschappij en de Golfresidentie Dronten. Wageningen: Wageningen UR
- Denters, S. A. H., & Heffen-Oude Vrielink, M. J. van (2004). *Achtergrondstudie Stedelijk Burgerschap*. Enschede: Kennis Instituut Stedelijke Samenleving
- Denters, S. A. H., Tonkens, E. H., Verhoeven, I., & Bakker, J. H. M. (2013). *Burgers maken hun buurt*. Den Haag: Platform31
- Finucane, M. L., Alhakami, A., Slovic, P., & Johnson, S. M. (2000). The Affect Heuristic in Judgments of Risks and Benefits. *Journal of Behavioral Decision Making*, 13(1), 1-17. doi:10.1002/(SICI)1099-0771(200001/03)13:1<1::AID-BDM333>3.0.CO;2-S
- Floyd, D. L., Prentice-Dunn, S., & Rogers, R.W. (2000). A Meta-Analysis of Research on Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(2), 407-29 doi:10.1111/j.1559-1816.2000.tb02323.x

- Gemeente Lelystad (2016, April 11). Samen werken aan veilige buurt via WhatsApp groep. Retrieved from https://www.lelystad.nl/4/Gemeente/Blijf-op-de-hoogte/Nieuws-2016/Nieuws-2016-April/Samen-werken-aan-veilige-buurt-via-WhatsApp-groep.html
- George, D., & Mallery, P. (2003). SPSS for Windows step by step: a simple guide and reference. 11.0 update (4th ed.). Boston: Allyn & Bacon
- Gill, C., Weisburd, D., Telep, C., Vitter, Z., & Bennett, T. (2014). Community-oriented policing to reduce crime, disorder and fear and increase satisfaction and legitimacy among citizens: a systematic review. *Journal of Experimental Criminology*, 10(4), 399-428. doi:10.1007/s11292-014-9210-y
- Hajer, M. A., Tatenhove, J. P. M. van, & Laurent, C. (2004). Nieuwe vormen van governance: een essay over nieuwe vormen van bestuur met een empirische uitwerking naar de domeinen van voedselveiligheid en gebiedsgericht beleid. Bilthoven: RIVM
- Kerstholt, J. H., Vries, A. de, Mente, R., & Huis in 't Veld, M. (2015). Politie en burgers: van informatie delen naar volwaardige samenwerking. *Tijdschrift voor Veiligheid, 14*, 78-88. doi:10.5553/TvV/1872794820150140304005
- McMillan, D. W., & Chavis, D. M. (1986). Sense of Community: A Definition and Theory. *Journal of Community Psychology, 14*(1), 6-23. doi:10.1002/1520-6629(198601)14:1< 6::AID-JCOP2290140103>3.0.CO;2-I
- Newman, J., & Tonkens, E. (Eds.) (2011). Participation, Responsibility and Choice: Summoning to Active Citizen in Western European Welfare States. Amsterdam: University of Amsterdam Press
- Paton, D., Okada, N., & Sagala, S. (2013). Understanding Preparedness for Natural Hazards: A cross cultural comparison. *Journal of Integrated Disaster Risk Management*, 3(1), 18-.35. doi:10.5595/idrim.2013.0051
- Paton, D. (2008). Risk communication and natural hazard mitigation: how trust influences its effectiveness. *International Journal of Global Environmental Issues*, 8, 2–16. doi:10.1 504/IJGENVI.2008.017256
- Paton, D., Burgelt, P., & Prior, T. (2008). Living with bushfire risk: social and environmental influences on preparedness. *The Australian Journal of Emergency Management*, 23(3), 41-48
- Paton, D., Smith, L., Daly, D., & Johnston, D. (2008). Risk perception and volcanic hazard mitigation: Individual and social perspectives. *Journal of Volcanology and Geothermal Research*, 172, 179-188

- Paton, D. (2007). *Measuring and monitoring resilience in Auckland*. Lower Hutt: GNS Science
- Paton, D., Smith, L., & Johnston, D. (2005). When good intentions turn bad: promoting natural hazard preparedness. *Australian Journal of Emergency Management*, 20(1), 25-30
- Paton, D. (2003). Disaster preparedness: a social-cognitive perspective. *Disaster Prevention* and Management, 12(3), 210-216. doi:10.1108/09653560310480686
- Pidgeon, N., Hood, C., Jones, D., Turner, B., & Gibson, R. (1992). Risk perception. In Royal Society (Eds.), *Risk: analysis, perception and management* (pp. 89-134). London: The Royal Society
- Pinsonneault, A., & Kraemer, K. L. (1993). Survey Research Methodology in Management Information Systems: An assessment. *Journal of Management Information Systems*, 10(2), 75-105. doi:10.1080/07421222.1993.11518001
- Ryan, V. D, Agnitsch, K. A., Zhao, L., & Mullick, R, (2005). Making Sense of Voluntary Participation: A Theoretical Synthesis. *Rural Sociology*, 70(3), 287-313. doi:10.1526/ 0036011054831198
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy. *Science*, 277(5328), 918-924. doi:10.1126/sci ence.277.5328.918
- Sampson, R. J. (2006). Collective efficacy theory: Lessons learned and directions for future inquiry. In Cullen, F. T., Wright, J. P., & Blevins, K. R. (Eds.), *Taking stock: The Status of Criminological Theory* (pp. 149-167). New Brunswick: Transaction Publishers
- Schoonhoven S. (2016, July 10). WhatsApp tegen inbrekers werkt. *De Telegraaf*. Retrieved from https://www.telegraaf.nl/tech/397076/whats-app-tegen-inbrekers-werkt
- Schreurs, W., Kerstholt, J. H., & Giebels E. (2017). Citizen participation in the police domain: the role of general attitude and morality (under review).
- Segers, J. (1999). Methoden voor de maatschappijwetenschappen. Assen: Koninklijke Van Gorcum
- Slovic, P., & Peters, E. (2006) Risk Perception and Affect. *Current Directions in Psychological Science*, *15*(6), 322-325. doi:10.1111/j.1467-8721.2006.0046.x
- Slovic, P., Finucane, M. L., Peters, E., & MacGregor, D. G. (2004). Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality. *Risk Analysis*, 24(2) 311-322. doi:10.1111/j.0272-4332.2004.00433.x

- Slovic, P., & Weber, E. U. (2002, April). *Perception of Risk posed by extreme events*. Paper presented at the Conference Risk Management strategies in an Uncertain World, Palisades, NY. Paper retrieved from https://www.researchgate.net/publication/209805
 350 Perception of Risk Posed by Extreme Events
- Verhoeven, N. (2010) *Wat is onderzoek? Praktijkboek methoden en technieken voor het hoger onderwijs* (3^e druk). Den Haag: Boom Onderwijs
- Vries, H. de, Dijkstra, M., & Kuhlman, P. (1988). Self-efficacy: The third factor besides attitude and subjective norm as a predictor of behavioral intentions. *Health Education Research*, 3(3), 273-282. doi:10.1093/her/3.3.273
- Wijdeven, T.M.F. van der (2012). *Doe democratie: Over actief burgerschap in stadswijken*. Delft: Eburon
- Williams, P. (2002). The Competent Boundary Spanner. *Public Administration*, 80(1), 103-124. doi:10.1111/1467-9299.00296

Appendices

Appendix A Survey Questionnaire
1. Wat is uw postcode?
2. Hoe lang woont u al in deze buurt? jaar
3. Hoe beoordeelt u uw contact met de buren in het algemeen?
 4. Bent u lid van een buurt-WhatsApp-groep? ☐ Ja → ga naar vraag 7 ☐ Nee → ga naar vraag 5
5. Zou u graag lid willen worden van een buurt-WhatsApp-groep?
6. Waarom zou u wel of niet lid worden van een buurt-WhatsApp-groep? Benoem de belangrijkste reden → U kunt hierna doorgaan naar vraag 12
 7. Hoe bent u lid geworden van de buurt-WhatsApp-groep? Ik heb de buurt-WhatsApp-groep opgericht Ik ben gevraagd of ik lid wilde worden Ik heb gevraagd of ik lid kon worden van de groep Anders
8. Wat was voor u de belangrijkste reden om lid te worden van de buurt-WhatsApp-groep?
9. Is de wijkagent lid van de buurt-WhatsApp-groep?
10. Hoe actief ben u in uw buurt-WhatsApp-groep? Geef uzelf een cijfer

Passief	1	2	3	4	5	Actief

11. Voor welk doeleinde wordt de Buurt-WhatsApp-Groep voornamelijk gebruikt?

Veiligheid in de buurt

- Zorgvoorziening
- Sociale activiteiten/contacten
- Anders

12. Hoe waarschijnlijk vindt u het, ...

Dat er een criminele activiteit als	Zeer onwaarschijnlijk	Tamelijk onwaarschijnlijk	Neutraal	Tamelijk waarschijnlijk	Zeer waarschijnlijk
inbraak of beroving plaatsvindt in uw buurt?	1	2	3	4	5
Dat u last ondervindt van een criminele activiteit als inbraak of beroving in uw buurt?	□ 1	2	□ 3	4	5
Dat u last ondervindt van leefbaarheidsproblemen als hangjongeren of graffiti in uw buurt?	□ 1	2 2	□ 3	4	— 5
Dat u last ondervindt van buurtconflicten?	□ 1	2	\square	4	— 5
Dat u slachtoffer wordt van criminele activiteiten in uw buurt?	□ 1	2	\square	4	□ 5

13. Stel dat er een criminele activiteit plaatsvindt in uw buurt. Hoe waarschijnlijk vindt u het dan dat het volgende gebeurt?

Grote schade aan de openbare voorzieningen (weg, speeltuin, etc.) in uw buurt	Zeer onwaarschijnlijk 1	Tamelijk onwaarschijnlijk 2	Neutraal	Tamelijk waarschijnlijk 4	Zeer waarschijnlijk 5
Grote schade aan uw huis/ bezittingen	□ 1	□ 2	\square	4	— 5
U en/of uw gezinsleden in een bedreigende situatie terecht komen	□ 1	2	\square	4	\Box_5
Uw leven ontregeld raakt door psychische schade	□ 1	2	\square	4	— 5
U zich niet meer veilig voelt in de buurt		2	\square 3	4	5

14. Hoeveel ervaring heeft u met overlast of onveilige situaties in uw buurt?

Geen ervaring	1	2	3	4	5	Veel ervaring

15. Hoe voelt u zich als u denkt aan de mogelijkheid dat er een criminele activiteit plaatsvindt in uw buurt?

-	Helemaal niet	Nauwelijks	Enigszins	Nogal	Heel erg
Gespannen					
Angstig					
Bezorgd					
Boos					
Onveilig					
Hulpeloos					

16. U kunt op verschillende manieren bijdragen aan een veiligere buurt. De volgende stellingen hebben betrekking op de mate waarin u uzelf in staat acht om hieraan bij te dragen. Kunt u aangeven in welke mate de volgende stellingen op u van toepassing zijn?

Ik acht mijzelf in staat om toezicht te houden op de buurt	Totaal niet	Niet echt	Een beetje	Redelijk goed	Zeer goed
Ik acht mijzelf in staat om informatie te verzamelen over verdachte omstandigheden in de buurt	□ 1	2	□ 3	\square	5
Ik acht mijzelf in staat om signalen op te vangen van overlast en criminaliteit	□ 1	2		4	5
Ik acht mijzelf in staat om informatie over verdachte situaties te delen met buren	□ 1	2 2	\square 3	\square	5
Ik acht mijzelf in staat om deel te nemen aan een buurt-WhatsApp-groep	□ 1	2	□ 3	4	5
Ik beschik over de juiste middelen (smartphone, netwerk) om deel te nemen aan een buurt-WhatsApp-groep	□ 1	2	□ 3	4	— 5

17. De maatregelen die u kunt treffen met betrekking tot een veiligere buurt leiden tot verschillende resultaten. De volgende vragen gaan over in hoeverre u denkt dat deze maatregelen effectief zijn. Kunt u aangeven in welke mate u het met de volgende stellingen eens bent?

Ik denk dat de buurt veiliger wordt als ik toezicht houd	Zeer mee oneens	Oneens 2	Neutraal 3	Eens 4	Zeer mee eens
Toezicht houden draagt bij aan een veiliger gevoel in de buurt	□ 1	□ 2	\square 3	4	5
Deelname aan een buurt-WhatsApp-groep bevordert de veiligheid	□ 1	2	\square 3	4	5
Een buurt-WhatsApp-groep draagt bij aan een veiliger gevoel in de buurt	□ 1	2	\square 3	4	5
Het waarschuwen of informeren van buren over verdachte situaties draagt bij aan een veiligere buurt	□ 1	2 2	$\boxed{3}$	4	5

18. De volgende stellingen gaan over de buurt waarin u woont. Kunt u aangeven in welke mate u het met de volgende stellingen eens bent?

Ik voel me thuis in deze buurt	Zeer mee oneens	Oneens	Neutraal 3	Eens 4	Zeer mee eens
Mijn buren zullen mij helpen indien dat nodig is	□ 1	2	3	4	5
lk wil hier altijd blijven wonen	□ 1	2	3	\square	5
lk voel mij verbonden met de mensen in mijn buurt	□ 1	□ 2	\square	4	5
lk heb vrienden in de buurt die ik regelmatig zie	□ 1	2	□ 3	4	5

19. Buurten verschillen in de mate waarin bewoners in staat zijn om eventuele problemen gezamenlijk op te lossen. Kunt u voor uw buurt aangeven in welke mate u het met de volgende stellingen eens bent?

Wij zijn als buurt in staat om besluiten te nemen, ook al verschillen de meningen	Zeer mee oneens	Oneens	Neutraal	Eens	Zeer mee eens
Wij kunnen als buurt de leefbaarhe van de buurt verbeteren, ook al zijr de middelen schaars		2	3	4	5
In moeilijke situaties zijn we als bu in staat om samen te werken aan een oplossing	urt 🔲 1	2	3	4	5
De mensen in deze buurt zijn bereid inspanningen te leveren om de buurt te verbeteren	□ 1	2	□ 3	4	5
Over het algemeen proberen wij als buurt eerst zelf problemen op te lossen	□ 1	2	3	□ 4	□ 5
Wij zijn als buurt in staat om de veiligheid in de buurt te vergroten	□ 1	2	\square	\square	— 5

20. Er zijn verschillende manieren om u in te zetten voor uw buurt. Kunt u bij onderstaande stellingen aangeven in hoeverre deze op u van toepassing zijn?

Ik heb met anderen samengewerkt om de leefbaarheid van onze buurt te verbeteren	Nooit	Zelden	Soms	Regelmatig	Vaak D 5
We hebben ons als buurt georganiseerd om de veiligheid te vergroten	□ 1	2	\square 3	4	— 5
Ik neem deel aan buurtactiviteiten zoals een buurtbarbecue of braderie	□ 1	2	\square 3	□ 4	□ 5
Ik woon openbare bijeenkomsten bij als het buurtkwesties betreft	□ 1	2	\square	4	5
Ik ben betrokken bij vrijwillige activiteiten ten behoeve van de verbetering van de woonomgeving (bijv. buurtcomité, buurtpreventie, huurdersvereniging)	□ 1	2	3	4	□ 5

21. In het geval van een onveilige situatie spelen meerdere partijen een rol. Kunt u aangeven in welke mate u het met de volgende stellingen eens bent?

Ik vertrouw erop dat de politie rekening houdt met de behoeften van de bewoners van deze buurt	Zeer mee oneens	Oneens	Neutraal 3	Eens D 4	Zeer mee eens
Ik vertrouw erop dat de politie over veel kennis beschikt om criminalitei tegen te gaan	□ it 1	2 2	\square 3	□ 4	5
Ik vertrouw erop dat de politie adequate maatregelen neemt indien er sprake is van een dreigende situatie	□ 1	2	\square 3	□ 4	— 5
Ik vertrouw erop dat de politie mij op tijd informeert	□ 1	2 2	\square 3	4	5
Ik vertrouw erop dat de politie mij het juiste advies geeft over hoe ik moet handelen	□ 1	2 2	\square 3	4	5
22. Wat is uw leeftijd in jaren?					

23. Wat is uw geslacht? Man

Vrouw

24.	Wat	is	uw	hoogst	voltooide	opleiding?
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Geen opleiding
Basisopleiding (lagere school)
VMBO (VMBO-tl,MAVO, MULO, ULO, IVO, middenschool)
HAVO
VWO (atheneum, gymnasium, HBS, MSVM, MSS)
MBO (MEAO, MSPO, MTS, BOL, BBL)
HBO (HTS, HEAO, MO-A, Pegagogische Academie)
WO
Anders

Wilt u op de hoogte blijven van dit onderzoek? Vul dan hieronder uw e-mailadres in. E-mail:

Hartelijk bedankt voor het invullen van deze vragenlijst!

Appendix B Other reasons of people who were not a member and do not want to become a member

Participant 1	Reason in Dutch Weinig thuis	Reason in English Little at home / Not much at home
2	Mijn man is bij de politie. Hij heeft er meer last dan gemak van denk ik	My husband works at the police. He would be more bothered by than that he would have any benefit from it, I guess
3	Geen gevoel van onveiligheid	No sense of insecurity
4	Ben niet op de hoogte met deze zaken	I'm not aware of this kind of things / I'm not ware of this type of business
5	Schept verplichtingen	Creates obligations
6	Niet bezig met Whats-App	Not busy with WhatsApp / Not working with WhatsApp
7	Denk dat me dat teveel tijd en gedoe kost	I think it takes too much time and effort
8	WhatsApp → via Google/Facebook, ik wil zo min mogelijk met Google/Facebook te maken hebben. Een onderlinge verbinding met de buurt is oke	WhatsApp → through Google/Facebook, I want to have as little as possible to do with Google/Facebook. A mutual connection with the neighborhood is okay