6

CONCLUSION AND DISCUSSION

6.1 INTRODUCTION
Social relationships with family and friends are important for people’s life circumstances and have an influence on people’s behaviour. In line with this, previous studies on prisoners have shown that social relationships are important for prisoners’ life circumstances during incarceration as well as their life outcomes after release (see for an overview Visher and Travis, 2003; Cochran, 2014). Although, imprisonment seems to have a negative impact on existing social relationships of prisoners, still little is known about the characteristics of and changes in their social networks. This dissertation has provided insight into the composition, overlap and changes in the social network of prisoners. The research questions of this dissertation were as follows:

1. What does the core discussion network of prisoners look like prior to their incarceration? To what extent does the core discussion network of prisoners differ prior to incarceration from the core discussion network of the general Dutch population?

2. To what extent do prisoners have criminal network members in their core discussion network prior to incarceration? Who are these criminal network members and what are the characteristics of these criminal relationships? Which characteristics of a) the network member; b) the prisoner; and c) the relationship are related to the probability of having a criminal network member in one’s core discussion network?

3. To what extent do prisoners’ core discussion network and criminal network overlap prior to incarceration? How do differences in network overlap relate to a) characteristics of the prisoner; and b) characteristics of the network members?

4. How do social networks of prisoners after release differ from their social networks prior to imprisonment? To what extent are a) characteristics of the prisoner; and b) characteristics of the network members associated with relationship stability, dissolution and formation?

Because this thesis has focused on prisoners and more specifically on their social networks, theories were used from both the criminological literature and the general social network literature. The theories from the criminological literature that were used are: the
social ability and social inability models (Hansell and Wiatrowski, 1981) and the theory of
social signalling and stigma (Goffman, 1963). Theories from the general social network
literature are the idea about investment considerations (Lin, 2001; Coleman, 1990) and the
idea about meeting opportunities (Blau, 1977; Feld, 1982). Although these theories are very
useful for gaining insight into the composition, overlap and changes in prisoners’ social
networks, they have not been applied before to gain a better understanding of the social
networks of prisoners.

Furthermore, this thesis has used data of the Prison Project; these data are unique in
a number of ways. First, the data are longitudinal and were gathered among more than 1900
prisoners in the Netherlands. To examine network changes, prisoners were asked about
their social network before and after incarceration. Secondly, by means of the name
generator/interpreter method, network data were obtained at relationship level. That is,
network members of prisoners were identified with their names, nicknames or initials,
after which several questions were asked about each of these members and about the
relationships with these members. Data at relationship level have the advantage that
prisoners could be asked about the status of their relationships during follow-up
measurements (i.e. has a relationship been broken off, is it stable or new to the network?).
Thirdly, the network data are related to two parts of the social network that may have a
great influence on the rehabilitation process of prisoners: the core discussion network and
the criminal network. Core discussion network members are considered to be main
providers of help and support (McPherson, Smith-Lovin and Brashears, 2006), whereas
criminal network members give prisoners access to criminal resources (Sutherland, 1947;
Burgess and Akers, 1966). Fourthly, the network questions were based on the network
questions in the Survey on the Social Networks of the Dutch (in short: SSND; Völker and
Flap, 2002; Völker, Flap and Mollenhorst, 2007). By using data of the SSND, a comparison
could be made between the social networks of prisoners and the social networks of the
general Dutch population.

In short, by means of these unique data, the use of theories from the criminological
and the social network literature, and the formulation of new research questions, this
dissertation has contributed to and advanced the research literature on prisoners’ social
networks.

The next paragraph will describe the main empirical findings of this thesis and will
answer the questions that were central in this dissertation. The main findings are also
summarized in Table 6.1 (presented at the end of this chapter). Paragraph 6.3 will evaluate
the theoretical arguments in light of the findings, and will address limitations of this study.
This chapter will conclude with suggestions for future research, and with the practical and
policy implications of the findings of this study.
6.2 SUMMARY AND MAIN FINDINGS

6.2.1 Comparing prisoners’ networks with the core discussion network of the general population (RQ1)

Chapter 2 of this dissertation has described and compared the core discussion network of prisoners prior to incarceration. It has examined the core discussion network of prisoners in terms of network size, network density, relationship quality (contact frequency, levels of trust, relationship duration) and embedded socioeconomic resources (network member’s educational level and employment status).

This study has revealed that the core discussion network of prisoners consists of intimate and strong social ties, which is in line with previous findings on core discussion networks of people in the general population (Marsden, 1987; McPherson et al., 2006; Mollenhorst, Völker and Flap, 2008). Prior to incarceration, about four out of five prisoners have a core discussion network. Prisoners discuss their important personal matters with about two people and they generally discuss these matters within a closely-knit network. The core discussion network of prisoners consists of relatively strong relationships, which is evident from a high level of trust, a long relationship duration and high contact frequency. Furthermore, both family and non-family members make up the core discussion network of prisoners prior to incarceration, but the network members are in majority family members.

Next to similarities, some differences were observed between the core discussion networks of prisoners and the core discussion networks of the general population. The core discussion network of prisoners is a more closely-knit network than the core discussion network of the general population is. In addition, prior to incarceration, prisoners see or speak to their network members more frequently, but seem to have less trust in their core discussion network members. Overall, these results provide more support for the social ability model than they do for the social inability model. However, the social ability model does not present a complete picture of the structure and quality of the relationships in prisoners’ networks. Especially notable is the lower level of trust prisoners have in their core discussion network members, as this network consists of people’s strong social relationships. The finding on trust might be related to the number of criminals prisoners have in their core discussion network prior to incarceration. Prisoners might trust their core discussion network members less because they ascribe negative characteristics to criminal network members, such as selfishness and untrustworthiness (see also Gottfredson and Hirschi, 1990). Previous research into active offenders has shown as well that criminals generally have less trust in other criminals, because they themselves are at risk of becoming a victim or being betrayed by their criminal network members (Rosenfeld et al., 2003; Wright and Decker, 1994). This study suggests that this trust issue may also play a role in the core discussion network of prisoners.

With regard to embedded socioeconomic resources in the core discussion network,
this thesis shows that prisoners have less socioeconomic resources in their core discussion network than people in the general population have. To be more specific, prior to incarceration, prisoners are more likely to have core discussion network members who are unemployed. They also are more likely to have core discussion network members who have a lower educational level. These differences remained when controlling for differences in respondents’ own socioeconomic status.

Taken together, when compared to people in the general population, prior to incarceration, prisoners generally have a core discussion network that is similar to or – in some respects – more favourable in terms of structure and relationship quality. However, prisoners’ core discussion network members seem to lack socioeconomic resources and seem to have less trust in their network members.

6.2.2 Criminals in the core discussion network (RQ2)

Chapter 3 of this thesis has examined criminal network members in the core discussion networks of prisoners prior to incarceration.

One out of seven prisoners had at least one core discussion network member who had provided him with criminal knowledge, and one out of five prisoners had at least one core discussion network member who was involved in criminal activities. Men, friends and same-aged counterparts are more likely to be the criminals in prisoners’ core discussion network. Although most previous studies have focused on juveniles and their criminal peers, these findings on the characteristics of criminal network members seem to be in line with earlier findings about the composition of the criminal network (Reiss and Farrington, 1991; Morselli, Tremblay and McCarthy, 2006; Van Mastrigt and Farrington, 2011).

Prior to incarceration, prisoners have less trust in their criminal core discussion network members. This lower level of trust in criminal network members was found for network members who had provided prisoners with criminal knowledge, and for network members who were involved in criminal activities. Again, this finding supports the idea that trust issues between criminals may play a role in the core discussion network of prisoners. Moreover, no clear differences were found between criminal core discussion network members and non-criminal core discussion network members in terms of relationship duration and contact frequency. Again, these findings provide more support for the social ability model than for the social inability model.

Finally, prisoners with more prior prison terms are more likely to have criminals among their core discussion network members. A possible explanation may be that prisoners who have served a longer prison term have had more opportunities to meet criminal others and to intensify their criminal relationships. Based on the idea of meeting opportunities, it was also expected that prisoners with a longer criminal career and prisoners who had been convicted in the past would have more criminals in their core discussion network. This study did not find a significant association, however, between the
length of the criminal career and the number of committed offences in the past on the one
hand, and having criminals in the core discussion network on the other. Possibly, the length
of the criminal career and the number of committed offences in the past do not result in an
increased likelihood of discussing important personal matters with criminal others,
whereas the number of previous sentences does. A detention period is often related with
high levels of stress and uncertainty (Sykes, 1958; Toch, 1998), which may make prisoners
more inclined to seek out fellow inmates-criminals for support and discussing personal
matters. Outside the prison walls, it is easier to fall back on non-criminal network members
to discuss important personal matters than when one is incarcerated. This might explain
why, departing from the idea of meeting opportunities, it was found that prisoners who had
served more previous sentences had more criminals in their core discussion network, but
it was not found that prisoners with a longer criminal career and prisoners who had been
convicted in the past had more criminals in their core discussion network.

6.2.3 Overlap between the criminal network and the core discussion network
(RQ3)
Chapter 4 of this thesis has examined the levels of overlap between the criminal network
and the core discussion network of prisoners prior to incarceration. The criminal network
was the central focus of the analysis in this chapter. The criminal network was identified by
asking prisoners to report the names, nicknames or initials of those with whom they
discussed criminal activities and exchanged criminal knowledge and skills in the six months
prior to their arrest. The findings from Chapter 4 provided insight into the degree to which
criminal network members of prisoners were also core discussion partners (= functional
network overlap), and the degree to which criminal network members were tied to
prisoners’ core discussion partners prior to incarceration (= structural network overlap).

Nearly one out of three prisoners has a criminal network member prior to
incarceration. If prisoners have network members with whom they exchange criminal
knowledge and skills, they do this on average with about two people. It was found that non-
family members, same-aged counterparts and males are most likely to be criminal network
members.

Considerable levels of overlap were observed between prisoners’ criminal network
and their core discussion network prior to incarceration. That is, one out of three criminal
network members is also a core discussion partner (functional network overlap), and one
out of two criminal network members is tied to more than fifty per cent of the core
discussion network members (structural network overlap). Overlap between prisoners’
core discussion network and their criminal network increases if prisoners lived in the same
neighbourhood as their criminal network members prior to incarceration. Moreover,
prisoners who shared multiple social settings with their criminal network members (e.g.
the neighbourhood, school and the workplace) have higher levels of structural network
overlap. One reason for these findings may be that meeting criminal network members causes prisoners’ criminal network members to know their non-criminal (core discussion) network members and to also discuss non-criminal important matters with their criminal network members.

6.2.4 Changes in the social networks of prisoners (RQ4)
Chapter 5 has examined the changes in the social networks of prisoners in the period from before to after their incarceration. Using data from the first and second measurement of the Prison Project, this chapter examined which social relationships changed, which were maintained after imprisonment, and which were newly included in the network of prisoners. Similar to Chapters 2 and 3, this chapter had the core discussion network of prisoners as focus of the analysis.

The findings from Chapter 5 suggest that the network size is highly stable in the period from before to after incarceration. It was found that the average number of people with whom prisoners discussed important personal matters remained stable at around two network members. Moreover, after release, prisoners’ core discussion network became somewhat more centred on the family, instead of on friends and the romantic partner. This result is in line with previous studies showing that family members play an important role in the lives of ex-prisoners shortly after release (e.g. Visher, LaVigne and Travis, 2004). Furthermore, the proportion of criminals decreased slightly which suggests that prisoners do not replace their (non-criminal) core discussion relationships with criminal ties (e.g. fellow inmates).

Despite the stability in network size, it was found that there is a high turnover rate in the core discussion network of prisoners. About sixty per cent of the core discussion relationships dissolve from the core discussion network, and are replaced by new core discussion relationships. In contrast, among the general Dutch population, Mollenhorst and colleagues (2014) found that, between 2000 and 2007, about seventy per cent of the core discussion relationships were replaced by new ones. This turnover rate was found, however, over a seven-year period. Prisoners involved in the Prison Project were re-interviewed six to eighteen months after the first measurement. Therefore, the turnover rate that was found for prisoners seems to be relatively high. Moreover, in light of future research, this result indicates that it is important to examine network changes at relationship level, because important changes in the social network of prisoners may otherwise remain unobserved.

Furthermore, several characteristics of the prisoner and characteristics of the social relationship affect the probability that relationships dissolve, remain stable and are formed in the period from before to after imprisonment. First, prisoners who are incarcerated for a longer period of time are more likely to face relationship discontinuation, and are also more likely to have new core discussion network members. A possible explanation for this finding
is that a longer prison sentence increases the time prisoners are confronted with the obstacles and barriers related to prison visits (for barriers, also see Bales and Mears, 2008; Christian, 2005). This may increase the probability of relationship deterioration. Yet, prisoners who are incarcerated for a longer period of time seem to replace their loss of ties by new core discussion relationships. These new core discussion relationships are not relationships with fellow inmates, but relationships with others who were already present in these prisoners’ social networks prior to incarceration (but did not discuss important personal matters with the prisoner at that time).

A second conclusion is that prisoners who cannot return to the same place of residence are more likely to face relationship discontinuation. From the idea of meeting opportunities, it seems likely that prisoners who cannot return to the same place of residence have fewer opportunities to re-establish their ‘old’ core discussion relationships, and therefore are more likely to face relationship dissolution. This finding is in line with previous studies in the more general network literature, showing that a relocation leads to a decrease in contact frequency and can lead to relationship discontinuation (South and Haynie, 2004; Neyer and Lang, 2003).

Thirdly, the number and type of core discussion relationships prisoners maintained prior to incarceration affect relationship dissolution and relationship formation. Prisoners who had relationships of better quality and had relationships with family members are less likely to face relationship discontinuation; they are also less likely to have new core discussion relationships. In addition, prisoners with a larger core discussion network prior to incarceration are more likely to face relationship discontinuation and are less likely to have new core discussion relationships. These results provide support for the idea that previous investments in social relationships reduce the probability that relationships are discontinued.

Finally, it was found that prisoners who are suspected of involvement in sexual and violent crimes are more likely to face relationship discontinuation and are also more likely to have new core discussion relationships. This finding partly supports the theory of social signalling and stigma (Goffman, 1963), which constitutes the basis of the argument that prisoners who have been accused of being involved in a sexual or violent crime are more likely to face stigma (see also Van Schellen, 2012). Prisoners accused of being involved in a sexual or violent crime indeed experience higher levels of relationship loss, but it seems that they are still able to replace their dissolved ties with new core discussion relationships.

6.3 DISCUSSION

6.3.1 Theoretical implications
This dissertation has drawn upon theories from the field of criminology and the field of
sociology to derive hypotheses about the composition, overlap and changes in the social networks of prisoners. In what follows, it will be discussed whether or not these principles and theories were successful in explaining characteristics of and changes in prisoners’ social networks.

Social ability and social inability models
In the criminological literature, there are different views on the quality of criminal relationships. Two theoretical perspectives, based on different views on the quality of criminal relationships, are the social ability model and the social inability model (Hansell and Wiatrowski, 1981). Whereas the social inability model assumes that offenders lack the social skills to maintain strong social relationships, the social ability model assumes that offenders have the same social skills as non-offenders have. Overall, the results from this thesis are more in line with the social ability perspective than they are with the social inability model. In line with the social ability model, it was found that prisoners have network members to whom they feel emotionally close. Prisoners have network members with whom they discuss important personal matters, they see or speak their core discussion network often, and they have known their core discussion network members for a relatively long period of time. These findings suggest that prisoners have sufficient social skills to maintain strong ties. Furthermore, prisoners’ social relationships with criminal core discussion network members are very similar to their social relationships with non-criminal core discussion network members in terms of relationship duration and contact frequency.

Despite the fact that the findings are mostly in line with the social ability model, one remark should be made about the model. An important finding of this dissertation is that prisoners trust their core discussion network members less than the general population does. Moreover, it was found that prisoners have less trust in their criminal core discussion network members as well. The social ability model did not predict these findings. As has already been argued in the previous section, this lesser amount of trust may be related to the way in which criminals perceive other criminals. As is the case for people in general, criminals may attribute negative personal characteristics to other criminals (see also Gottfredson and Hirschi, 1990). The fear of criminals that they themselves will fall victim to a criminal offence or the fear that criminal offences may come to light through criminal network members, may be related to the lower levels of trust in criminal relationships (Wright and Decker, 1994). Therefore, the social ability model offers a better explanation for the network size and quality of prisoners’ relationships, but does not provide a complete picture of their social relations – especially when it comes to trust.

Investment considerations
This thesis also relied on the idea of investment considerations. According to the idea of investment considerations, people are reasoning actors who tend to invest in social
relationships that have high (expected future) benefits and low costs (Coleman, 1990; Lin, 2001; Rusbult, 1980). This study shows that direct benefits of and previous investments in social relationships provide an explanation for the composition and changes in the social networks of prisoners. However, no support was found for the idea that expected future benefits and present costs of social relationships play a role in the composition and the changes in prisoners’ social networks.

This study shows that direct benefits, in particular the principle of homophily (i.e. that people tend to engage in relationships with others similar to them), indeed provide an explanation for the composition of prisoners’ social networks prior to their incarceration. It was found that prisoners, who generally have a lower socioeconomic position in society (Western, 2002; Visher et al., 2004), have fewer socioeconomic resources in their core discussion network than people in the general population have.

Furthermore, it was found that previous investments affect the likelihood that social networks of prisoners change in the period from before to after incarceration. Prisoners experience fewer changes in their social network if they have more family relationships and have stronger relationships prior to their incarceration. The reasons brought up in the literature for the fact that people less quickly break off the relationships in which they have invested, are twofold. First, a greater investment in existing relationships generates more credit and more sympathy among network members, making them more willing to provide help and support in times of crisis (Hurlbert, Beggs and Haines, 2000; Van Busschbach, 1996). Secondly, a greater investment in existing social relationships decreases the likelihood that relationships will be ended, because breaking off highly invested social relationships means that previous investments will be lost (Terhell, Broese van Groenou and Van Tilburg, 2007). Although neither of these explanations were tested directly, this study found support for the general idea that previous investments are positively related to the probability that social relationships will be continued.

This study shows that expected future benefits do not provide an explanation for the composition of and changes in prisoners’ social network. The idea of future benefits, arising from the social capital theory (Coleman, 1990; Flap, 1999), assumes that people tend to invest in relationships that may be useful to them in the future. No support was found for the hypotheses that were derived from the social capital theory. The fact that these hypotheses were not supported, may indicate that future benefits of a relationship are not decisive for being or not being part of prisoners’ core discussion network. This conclusion is in line with previous research by Van Busschbach (1996). In her study, Van Busschbach found that future benefits are less important for the maintenance of intimate social relationships than the direct benefits of a relationship. According to Van Busschbach, being part of the intimate social circle does not depend on the future benefits of a social relationship, but is more likely to depend on factors such as having shared interests and having similar lifestyles. The mutual understanding that individuals generally experience in
relationships with similar others constitutes the primary reason for choosing the network members with whom one discusses important personal matters. The results of this thesis indicate that the direct benefits might also be more decisive for the composition of and changes in the core discussion network of prisoners than the future benefits are.

Finally, no support was found for the idea that the present costs of a relationship influence the changes in prisoners’ social networks. It was expected that prisoners who were incarcerated farther away from home would experience more changes in their social network, because a longer travel distance for family and friends would increase the costs of maintaining existing social relationships. Yet, no support was found for this hypothesis. A possible explanation for the fact that this association was not found, may be that, in case of a prison sentence, travel distances in the Netherlands are relatively easy to cope with. In comparison to many other countries (e.g. the United States), the Netherlands is relatively small and its travel distances short. In addition, the place of residence is often taken into account when a prisoner is placed in a Dutch correctional facility. As a result, in many cases, the travel time and the ensuing costs for relatives and friends are limited. Possibly, when testing this hypothesis with data from other (larger) countries, one may come to other conclusions about travel distance and relationship discontinuation.

**Meeting opportunities**

Another principle used in this dissertation relied on the idea that social relationships are a result of meeting opportunities. The idea of meeting opportunities assumes that people have to meet one another in order to form ties (Blau, 1994; Feld, 1982). Or stated differently: ‘There is no mating without meeting’ (Verbrugge, 1977). The idea of meeting opportunities proved valuable when explaining the composition, overlap and changes in the social networks of prisoners.

Based on the argument of meeting opportunities, it was expected that meeting criminals leads to the formation and strengthening of criminal relationships. In previous criminological studies, researchers have already argued that criminal relationships (i.e. co-offending ties) are more likely to be formed if criminals meet one another in criminal (convergence) settings (see, among others, Felson, 2003). In line with this idea, prisoners who had been incarcerated before proved to have more criminals in their core discussion network prior to their incarceration. Furthermore, it turned out that prisoners who lived closer to their criminal network members and prisoners who shared multiple social settings with their criminal network members had more overlap between their criminal network and their core discussion network.

When looking at the changes in the social networks of prisoners, the idea of meeting opportunities is supported, too. Feld and Carter (1998) argued that important life events lead to network changes because a life event often causes people to leave particular settings and to enter new ones. A prison sentence forces people to leave, among other
things, their neighbourhood, job and family. These changes complicate the opportunities to have contact with former network members, yet, at the same time, the prison setting provides opportunities to engage in new social relationships (e.g. with fellow inmates). In line with the expectations based on the meeting opportunity argument, it was found that prisoners serving longer prison terms had a greater chance of both losing relations and having new ones. Furthermore, it was found that prisoners who were unable to return to their former neighbourhood also ran a greater risk of losing existing social ties.

Social signalling and stigma
The theory of social signalling and stigma (Goffman, 1963) has been used in research on the social consequences of crime and imprisonment (see, for instance, Apel, Blokland, Nieuwbeerta and Van Schellen, 2010). In line with previous research, this thesis shows that the theory of social signalling and stigma can be helpful to explain network changes among prisoners as well.

The theory of social signalling and stigma assumes that delinquency or a prison incarceration can result in negative responses from society, making it difficult for ex-prisoners to maintain and engage in social relationships. Besides the expectation that detention leads to network changes among prisoners, it was also expected that prisoners who are suspected of committing a violent or sexual offence experience more difficulties to maintain and form social relationships. Van Schellen (2012) already suggested that one reason why violent and sexual crimes generally lead to negative responses (more than other types of crimes) is that family members or friends are themselves victims or are afraid to fall victim to these crimes. In support of this idea, it was found that prisoners suspected of a violent or sexual crime have a greater chance of losing social relationships. Yet, unsupportive of the idea, it was found that prisoners who are suspected of a violent or sexual crime have a greater chance of forming new social relationships. A possible explanation for this unexpected result is that prisoners can hide their involvement in crimes from (potential) new network members, which enables them to replace their lost relationships with new ones. While it may be difficult for prisoners to keep silent to existing social ties about a detention or a criminal offence, for starting new relationships it is not necessary to be open about their penitentiary past.

6.3.2 Methodological implications
This dissertation has answered some important questions about the composition, overlap and changes in the social networks of prisoners. Despite the contribution of this study to the existing literature, it also has some limitations that should be mentioned.

First, the conclusions of this dissertation are based on a selective group of prisoners. In this dissertation, the social networks were examined of male prisoners aged 18 to 65,
who were born in the Netherlands. Although these criteria ensure that the sample covers most of the prisoners in the Netherlands, there are also groups of prisoners who have not been interviewed, such as women and prisoners who were not born in the Netherlands. Moreover, prisoners involved in this study had been in pretrial detention for approximately three weeks, which means that this study deals with prisoners who were suspected of involvement in more serious offences. Additionally, the data used did not include prisoners with serious psychological problems. Prisoners who suffer from such problems may have fewer social skills and face more social issues. This may result in differences between the social networks of those who do and those who do not suffer from serious psychological problems. Due to these selection criteria, conclusions of this thesis cannot be generalized to prisoners outside the scope of this study.

Secondly, to examine changes in the social network of prisoners, data of prisoners with relatively short prison spells were used. That is, of the initial sample of 1909 prisoners, this study analyzed data of 702 prisoners who were released and interviewed before July 2012. The prison terms of these prisoners ranged from a few weeks to over a year. Although most prisoners in the Netherlands serve relatively short prison sentences (ninety per cent of Dutch prisoners are incarcerated for less than a year; Linckens and De Looff, 2013), future research should also examine the consequences of prison terms that exceed one year. Prisoners who serve longer prison sentences may experience bigger network changes, because they face the barriers related to prison visits for a longer time period.

Thirdly, the prison setting in which the first interview took place may have affected the answers given in the interview by the respondent. In pretrial detention, a police investigation is often still ongoing, making prisoners suffer frequently from high levels of stress and uncertainty (Sykes, 1958). These conditions may result in prisoners being more careful about the information they provide to others, especially if they have to report about their criminal network members. Moreover, during the first measurement, prisoners were asked about the social relationships they maintained before they entered prison. Instead of asking prisoners about their social situation in the previous six months, they were asked about their social situation in the six months prior to incarceration. Although prisoners were in pretrial detention for only three weeks, recall bias may have affected the answers that prisoners gave about their social relationships (see also Henry, Moffitt, Caspi, Langley and Silva, 1994).

Fourthly, criminal behaviour of the network members was measured in this dissertation by asking respondents about the criminal involvement of their network members in the past year. Using such direct measures of criminal network members has the potential drawback that respondents may tend to under- or over-report the level of delinquency of their network members. A problem that can arise when using self-report data is that respondents may tend to project their own behaviour onto that of their network members (Young and Weerman, 2013). That is, prisoners who are more criminally active
may report that their network members are more criminally involved than they actually are. When collecting ego network data – as has been done in this dissertation – it seems unfeasible to approach all network members and ask them about their criminal behaviour. Nonetheless, the use of self-report methods may have biased the measure of network members’ criminal involvement.

6.3.3 Suggestions for future research

Building upon findings from this study and previous studies, future research can extend existing knowledge in a number of ways.

First, it would be interesting to examine changes in the criminal networks of prisoners. If criminal relationships are not part of prisoners’ immediate social circle, it can be expected that relationships in the criminal network are located in a more peripheral position in the social network and are generally weaker than relationships in the core discussion network. Therefore, it might be found that these relationships are more likely to dissolve in the period from before to after incarceration. Moreover, the prison setting pre-eminently offers the opportunity to meet other criminals. It would be interesting to examine whether relationships formed in prison are also maintained after release (outside the core discussion network). Future research could shed light on whether relationships that were newly formed in prison increase the size of the criminal network after release, or whether these relationships replace former criminal relationships. Answering these questions would further extend our knowledge of the social networks of prisoners.

Secondly, in order to get a more complete view of the social networks of prisoners, it would be valuable to ask more than two name generator questions. For instance, as it has also been asked in the Survey of the Social Networks of the Dutch (Völker and Flap, 2002), one could ask prisoners about the network members they go to for a visit in their leisure time. Or about the network members prisoners turn to for help if they are busy with a small chore at home (e.g., furniture needs to be moved or a ladder needs to be held) (Völker and Flap, 2002). These are the name generator questions that generally lead to names of network members with whom individuals maintain weaker ties. Although answering multiple name generator questions can be a time-consuming task, adding more name generator questions would shed light on other parts of prisoners’ social networks. This would be especially interesting in light of the finding that new core discussion network members are already present in the social networks of prisoners prior to incarceration. Future research should examine the extent to which new network members were already important to prisoners prior to incarceration, and which network members had a peripheral position in the social network prior to incarceration.

Thirdly, it is important for future research to collect information about social networks of criminal suspects who have not been sentenced to prison. This study revealed that sentence length is positively related to relationship dissolution and relationship formation.
However, this study was unable to examine whether imprisonment itself affects the social networks of prisoners. That is, it remains unclear whether a prison sentence has a different effect on social networks than a non-prison sentence has. In future research, network data might be collected for a comparable group of non-prisoners (e.g., offenders receiving a community-based sanction). By comparing changes in the networks between prisoners and non-prisoners, relevant questions can be answered about the impact imprisonment itself has on the social networks of people.

Fourthly, future research should examine whether the composition, overlap and changes in prisoners’ social networks have an effect on prisoners’ life circumstances and the risk of recidivism. From previous studies, it is already known that staying in touch with family and friends while in prison and having family and friends after release, can improve prisoners’ life outcomes. Moreover, it has also been found that staying in touch with family and friends during incarceration decreases the likelihood that prisoners reoffend after release. As already mentioned, core discussion networks and criminals networks of prisoners might in particular affect a successful transition of prisoners back into society. Research on whether core discussion networks or criminal networks of prisoners relate to recidivism and success (or failure) after release would extend our knowledge about the role social relationships play in the lives of prisoners.

6.3.4 Policy and practical implications
The findings of this dissertation have a number of implications for the development and improvement of policy and practices. On the basis of these findings and of what is known from previous studies, there is ground to formulate some recommendations for future practices.

First of all, the findings of this thesis contribute to the debate about the severity and length of punishment for offenders convicted of crimes. Prior research has revealed that the length of prison sentences is positively associated with the risk of reoffending (Gendreau, Goggin and Cullen, 1999; but see also Snodgrass, Blokland, Haviland, Nieuwbeerta and Nagin, 2011). Furthermore, recent work by Ramakers and colleagues (2014) has found that longer prison terms can have negative consequences for ex-prisoners’ employment prospects. In addition to these findings, it was found that longer prison terms lead to changes in the immediate social circle of prisoners. As family and friends are the main providers of help and support after release (Visher et al., 2004) and can contribute to a reduction in the risk of reoffending (Visher and Travis, 2003; Berg and Huebner, 2011), it seems that – from a social network perspective – imposing longer prison sentences can have detrimental effects.

Furthermore, the findings suggest that a key priority of policy should be to increase the probability that former prisoners return to the same place of residence. This study has shown that prisoners who did not return to the same place of residence were more likely to
lose existing social ties. Yet, in the effort to secure housing and to achieve a successful return of prisoners, one should be aware of the relationships prisoners maintain with friends from the same neighbourhood. This dissertation has shown that criminal friends are more likely to be part of prisoners’ immediate social circle if they live closer to the prisoner. Therefore, an effort should be made to stimulate the formation of constructive social networks among former prisoners, and to discourage the maintenance of criminal relationships in general and criminal relationships in the neighbourhood in particular.

In line with the previous recommendation, policy measures should focus on the continuation of (non-criminal) family ties. Family relationships include relationships with the romantic partner, parents, siblings and other relatives. Although family relationships are generally more stable than non-family relationships, still fifty per cent of the family relationships disappear from the core discussion network of prisoners. Previous studies have shown that family relationships are very important to prisoners when it comes to providing help and support after release (Visher et al., 2004). Therefore, action should be taken to prevent the dissolution of family ties (e.g. by increasing the opportunities for a prisoner to stay in touch with family members while incarcerated, for instance by allowing more family visits or creating opportunities for prisoners to go home to family during the weekends).

Finally, more attention needs to be devoted to prisoners who are suspected of involvement in violent or sexual offences. The results in this dissertation have shown that these prisoners are more likely to face relationship discontinuation. Therefore, for this group of prisoners, more guidance and practical help could be beneficial in order to sustain them and to compensate for the support they may miss out on because of lost relationships.

By focusing policy on the improvement and maintenance of social relationships, it is possible to advance the rehabilitation of ex-prisoners. This study has provided answers to important questions about the composition, overlap and changes in the social networks of prisoners. Hopefully, future research will continue to pay attention to prisoners’ social relationships, and to make progress, not only in the research field, but also in professional practice. In this way, it will be possible to improve the position of former prisoners in society and reduce recidivism.
### PERSONAL NETWORKS OF PRISONERS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Aims</th>
<th>Sociograms reflecting the aims</th>
<th>Main conclusions</th>
</tr>
</thead>
</table>
| 2       | 1. To describe the core discussion network of prisoners in terms of network structure, relationship quality and embedded socioeconomic resources.  
2. To compare prisoners' core discussion network with the core discussion network of the general Dutch population. | ![Sociogram with prisoners and general population] | Compared to the general population, prisoners have... |
|         |      |                                |... as many people with whom they discuss important personal matters.  
... a more closely knit network.  
... less trust in their core discussion network members.  
... more contact with their network members.  
... known their network members for the same amount of time.  
... less embedded socio-economic resources in the core discussion network. |
| 3       | 1. To describe the criminal network members who make up prisoners' core discussion network prior to incarceration.  
2. To examine the quality of the criminal relationships in the core discussion network.  
3. To investigate whether the number of criminals in the core discussion network can be explained by characteristics of the prisoner. | ![Sociogram with core, criminal, and friends] | One in seven prisoners had at least one core discussion network member who provided them with criminal knowledge.  
One in five prisoners had at least one core discussion network member who was involved in criminal activities.  
Friends, men and same-age counterparts are more likely to be the criminal core discussion network members.  
Relationships of (high) trust are less likely to be relationships with criminal core discussion network members.  
Prisoners who served more terms in prison have more criminals in their core discussion network. |
| 4       | 1. To examine the level of overlap between the criminal network and the core discussion network of prisoners prior to incarceration.  
2. To investigate whether and to what extent variance in network overlap can be explained by characteristics of the prisoner and the particular relationship between the prisoner and his network member. | ![Sociogram with overlap and core] | Considerable overlap was found between prisoners' criminal network and their core discussion network.  
One out of three criminal network members is also a core discussion partner.  
One out of two criminal network members is tied to more than fifty percent of the core network members.  
Network overlap increases if prisoners live closer to their criminal members, and share more social settings with their criminal network members prior to incarceration. |
| 5       | 1. To describe the differences and similarities between the core discussion network of prisoners prior to and after incarceration.  
2. To examine the characteristics of the prisoner and the network member that relate to the probability that prisoners have stable, dissolved or new core discussion network members. | ![Sociogram with core and network before and after release] | Before and after imprisonment, the average core discussion network size is about two.  
Despite the stability in network size, 60% of prisoners' network members are replaced.  
'New' core network members are not inmates, but often emerge from pre-existing (family) ties.  
Network changes depend on the length of a prison term, the type of crime, the relationship quality prior to incarceration, and a return to one's former home. |

**Table 6.1: Overview of Chapters: Aim(s), Sociograms Reflecting the Aims and Main Conclusions**