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Receiving visits in Dutch prisons: a study on the determinants and consequences of prison visitation

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Visitation patterns and post-release offending: exploring variations in the timing, rate, and consistency of prison visits

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Abstract

Purpose: Prior research and theory suggest that receiving visits in prison can reduce recidivism. However, recent scholarship shows that there is variability in whether, how often, and when individuals are visited while incarcerated which may affect post-release outcomes. This study therefore investigates how the frequency and timing of prison visits relate to post-release offending among individuals incarcerated in the Netherlands.

Method: Data were drawn from the Dutch Prison Visitation Study, which includes detailed measures of visitation, recidivism, and several covariates. Group-based trajectory models were employed to identify visitation patterns. Then, logistic regression models were used to estimate the effects of these trajectories on the likelihood of reconviction.

Results: The results demonstrate that consistent, frequent visitation and visits near release are associated with reductions in reconvictions, especially in the first six months after release. No significant associations were found between individuals who only sporadically receive visits or experience a decrease in visits in the months before release on recidivism when compared to non-visited individuals.

Conclusions: These findings suggest that some visits (such as frequent, consistent visits) may be beneficial for reducing recidivism in the short-term. More research is needed to understand how and why these visits contribute to reductions in recidivism.

Keywords: visitation, recidivism, prison, social support, group-based trajectory modelling

7.1 Introduction

Each year over 10 million individuals are incarcerated worldwide (Walmsley, 2015). Although the time spent in prison is intended to prevent crime, recidivism risks are high among individuals released from prison (Durose et al., 2014; Weijters et al., 2019). This is perhaps not surprising as persons released from prison face major challenges and stresses of having a criminal background (Visser et al., 2004). A critical differentiating factor between those who can manage these challenges and those who are less successful is the availability of social support (Kjellstrand et al., 2021; Maruna & Toch, 2005). Existing research shows that individuals who have social support after being released from prison are less likely to recidivate (Boman & Mowen, 2018), have improved mental health during reentry (Wallace et al., 2016), and are more likely to find housing and employment (Berg & Huebner, 2011; Hickert et al., 2019). Yet, maintaining contact with loved ones while incarcerated can be challenging. One of the few opportunities presented to individuals to facilitate meaningful social interaction and stay connected to family, friends, and the community while incarcerated is through prison visits.

A considerable amount of scholarship has already been directed at studying the extent to which receiving visits in prison is related to post-release outcomes. The bulk of this research focuses on recidivism. While such studies have found that visits are associated with reductions in recidivism (see Mitchell et al., 2016 for a systematic review and meta-analysis), an examination of recent empirical work on visits' effects suggest that the relation is more complex. Current scholarship consistently finds that the relation between visitation and recidivism is heterogeneous. For instance, not all visits are positive experiences nor necessarily suitable for improving relationships, which can impact outcomes. Baker et al. (2021) found that negative visitation experiences as opposed to positive visitation experiences actually *increased* individuals' concerns about recidivism, housing, and debts. Similarly, evidence suggests that more restrictive conditions of confinement, which impose more constraints and surveillance for visiting, are less effective in reducing recidivism (Turanovic & Tasca, 2021). These studies raise an important question: which visits and when are visits related to reductions in recidivism? To probe this question, articulate measures which capture the heterogeneity of prison visitation are needed. The work produced in recent years has made a good start, as studies have shifted the focus from whether individuals are visited to who is visiting (Bales & Mears, 2008; Duwe & Johnson, 2016) and how visits are experienced (Baker et al.,

2021; Turanovic & Tasca, 2021). But, with one exception (Cochran, 2014), research rarely considers how the timing of visitation is associated with recidivism.

Distinct visitation patterns have been identified among diverse samples of individuals incarcerated in the United States (U.S.; Cihan et al., 2020; Cochran, 2012, 2014; Hickert et al., 2018; Young & Hay, 2020), showing that some individuals are never visited, some are visited every month, some only received a single, sporadic visit, and some are only visited early in their prison term. Such diverse visitation experiences in terms of how often individuals receive visits and when individuals are visited may differentially affect post-release outcomes. For example, it is possible that a single, sporadic visit is less effective than frequent visitation in reducing recidivism. Also, receiving visits near release may be crucial for planning for an individuals' imminent reentry.

Against this backdrop, the current study seeks to advance research on prison visitation and recidivism by examining whether the frequency and recency of visits (i.e., near release) influence post-release offending among individuals incarcerated in the Netherlands. This study uses group-based trajectory modelling to identify longitudinal visitation patterns among 541 men. Then, we use logistic regression models to test how these patterns relate to all offending and serious offending up to two years after release.

Theory and Research on Visitation Patterns and Recidivism

Visitation patterns can be defined by their frequency (e.g., consistent vs. sporadic) and recency (e.g., at the start or end of prison term). Individuals may receive visits during certain periods in prison and not at all in other periods. Some individuals may receive visits upon admission but then experience a slow decline in the frequency of these visits later on. Others may experience an increase in visits leading up to their release. Even for those who are consistently visited, the amount of visitation may differ from weekly, monthly, or even yearly visits. Such patterns – differing in frequency and timing – have been identified in five U.S. studies (Cihan et al., 2020; Cochran, 2012, 2014; Hickert et al., 2018; Young & Hay, 2020). All five studies also identified a relatively large group of individuals who did not receive visits while incarcerated. Yet, since the extant knowledge about visitation patterns in prison stems solely from the U.S., it remains unclear as to whether other patterns exist for different populations and contexts.

Even so, several theoretical arguments can be made that both the frequency and recency of visits may have differential implications for recidivism. To start, the most common pattern found in prior research is 'never visited' (Cihan et al., 2020;

Cochran, 2012, 2014; Hickert et al., 2018; Young & Hay, 2020). There are several reasons why some individuals are not visited in prison, ranging from practical challenges (e.g., American and Dutch research show that far travelling distance impedes visits, see Chapter 4 and Clark & Duwe, 2017) to relational difficulties (e.g., social relationships may become strained as individuals engage in criminal behavior, Connor & Tewksbury, 2015). Moreover, some individuals even opt out of visits to spare family and friends emotional or financial hardship (Janssen, 2000; Pleggenkuhle et al., 2018). Even though some individuals are not visited, they may still have contact with family and friends in other ways such as phone calling or letter writing. However, visits are considered a vital bonding opportunity to maintain and cement relationships (Turanovic & Tasca, 2021). Recent studies also suggest that visits in and of themselves are important for reentry expectations and outcomes (Anderson et al., 2020; Hickert et al., 2019). Thus, without such relationships, non-visited individuals may have difficulties finding housing, securing employment, and overcoming the negative labels (i.e., criminal, offender) and processes (i.e., discrimination in jobs) that individuals experience after being released from prison (Maruna & Toch, 2005; Visser et al., 2004), and consequently, are more likely to recidivate.

Conversely, there are individuals who consistently receive visits in prison (Hickert et al., 2018). Receiving visits throughout a prison term may be especially protective against harmful impacts of incarceration (De Claire & Dixon, 2017; Liebling, 1999). Also, receiving constant visits can help protect against adopting a criminal identity while incarcerated (Wolff & Draine, 2004). That said, experiencing at least some visitation – even if consistent – could still not be “enough” to produce such changes. For instance, receiving visits every other month may be less effective than when someone receives regular, weekly visits. Frequent visits namely allow individuals the opportunity to not only maintain, but also *strengthen*, their relationships to prosocial others which, according to the social bonds theory, helps restrain individuals from committing crime (Hirschi, 1969). Also, if relationships are willing to visit often, they may also be more willing (or able) to provide critical emotional or instrumental support in navigating the dramatic change in circumstances and uncertainty after release (Berg & Huebner, 2011; Christian et al., 2006; Hickert et al., 2019; La Vigne et al., 2016). Consequently, the expectation is that individuals who receive frequent visits would have the lowest rates of recidivism.

Beyond whether and how often individuals receive visits, the timing or recency of visits may also be important for recidivism. Visits near release may be useful for planning and organizing practical matters for an individuals’ imminent reentry. These visits could also help individuals feel more optimistic about their return (Visser &

O'Connell, 2012), reduce anxiety about their return (Mancini et al., 2015), and help remind individuals of their social roles within their outside networks (Cochran & Mears, 2013; LeBel, 2012). Contrarily, if individuals' experience a decrease in visits over time than relationships have likely weakened, making it difficult to access these contacts upon release.

Unfortunately, research providing empirical testing of visitation patterns on recidivism is scant. A study conducted by Cochran (2014) stands as the sole exception. Using prison administrative data on visits across the entire prison term, Cochran (2014) conducted group-based trajectory models for over 11,000 individuals incarcerated in Florida serving 8-17 months in prison. The results showed that visited individuals were less likely to recidivate than non-visited individuals, but different visitation patterns correlated with differing levels of recidivism. Individuals who were visited early and consistently were less likely to recidivate than non-visited individuals. Surprisingly, receiving visits near release was not associated with recidivism.

The Current Study

The current study advances the literature on visitation effects by identifying common visitation patterns among individuals incarcerated in the Netherlands and testing how these patterns relate to recidivism. Data from the Dutch Prison Visitation Study (DPVS) were used which includes detailed measures of visitation, recidivism up to two years after release, as well as a long list of measures on individuals' characteristics known to be important for visitation and recidivism (including demographic characteristics, criminal history, and individuals' pre-prison social networks). Controlling for these covariates helps to account for possible selection effects into visitation.

Since the data were collected in the Netherlands, this study provides unique insight into visitation patterns in Dutch prisons. The Dutch Prison Service (*Dienst Justitiële Inrichtingen*) strives towards a positive, humane prison climate evidenced by prison regimes with daily schedules consisting of work, education, and recreation. Visitation is a standard part of this schedule. Individuals incarcerated in the Netherlands have the right to one hour of visits a week with up to three unique visitors per visit. Extant studies demonstrate that most incarcerated individuals (estimates ranging from 74-89%) in the Netherlands receive visits while incarcerated (see Chapter 3 & 4; Hickert et al., 2019). Most visits are contact visits, meaning individuals and their visitors can sit together with limited physical contact (i.e., brief kiss and/or hug at beginning and end of visit). Visiting conditions are thus, relatively uniform across prisons and regimes. This last point is important as

research indicates that differences in visiting conditions may impact visits' effects on recidivism (Turanovic & Tasca, 2021). In addition, even though Dutch penal policies became harsher in recent decades (Kruttschnitt & Dirkzwager, 2011), reentry is studied in a relatively mild penal climate (e.g., short sentences, humane prison climate, limited access to criminal records) compared to other Western countries. Together with this penal climate, the relatively high visitation rates indicates that a study of visitation effects in the Netherlands offers an interesting alternative to many Western countries and the bulk of visitation research that is largely based on American data.

7.2 Method

Dutch Prison Visitation Study

This study uses data from the DPVS, a unique nationwide study which aims to examine prison visitation from different perspectives and in all its variety. This study is a part of a large-scale national research project (the Life in Custody study) which periodically measures the quality of life in Dutch prisons using the Prison Climate Questionnaire (Bosma et al., 2020a) among all persons incarcerated in the Netherlands (Van Ginneken et al., 2018). All persons are individually approached and invited to participate. The purposes of the study are explained and participants are handed paper surveys to complete in private, or offered the opportunity to complete the survey with researcher assistance. Surveys were distributed and collected by research assistants from the university in the same week to ensure confidential treatment of the data. Participants were asked explicitly to consent for research participation and to link their survey data to administrative information, including visitation and criminal records.

For the present study, we use data from the 2017 data collection which combines collected survey data on individuals' social network (using procedures described above, for more details see Van Ginneken et al., 2018) and prison administrative data on several individual characteristics (including age and nationality) and visitation. While many Dutch prisons have administrative data on visitation, not all prisons use the nationwide system '*TULP Bezoek*' and even when they do the quality of the information recorded varies enormously. After site visits and inspection of the data, eight prisons were shown to have the most complete visitation data. These eight prisons are in both urban as well as more rural areas throughout the Netherlands and house adult males from all regimes. In terms of cell capacity and staff-prisoner ratio these prisons are comparable to other Dutch prisons.

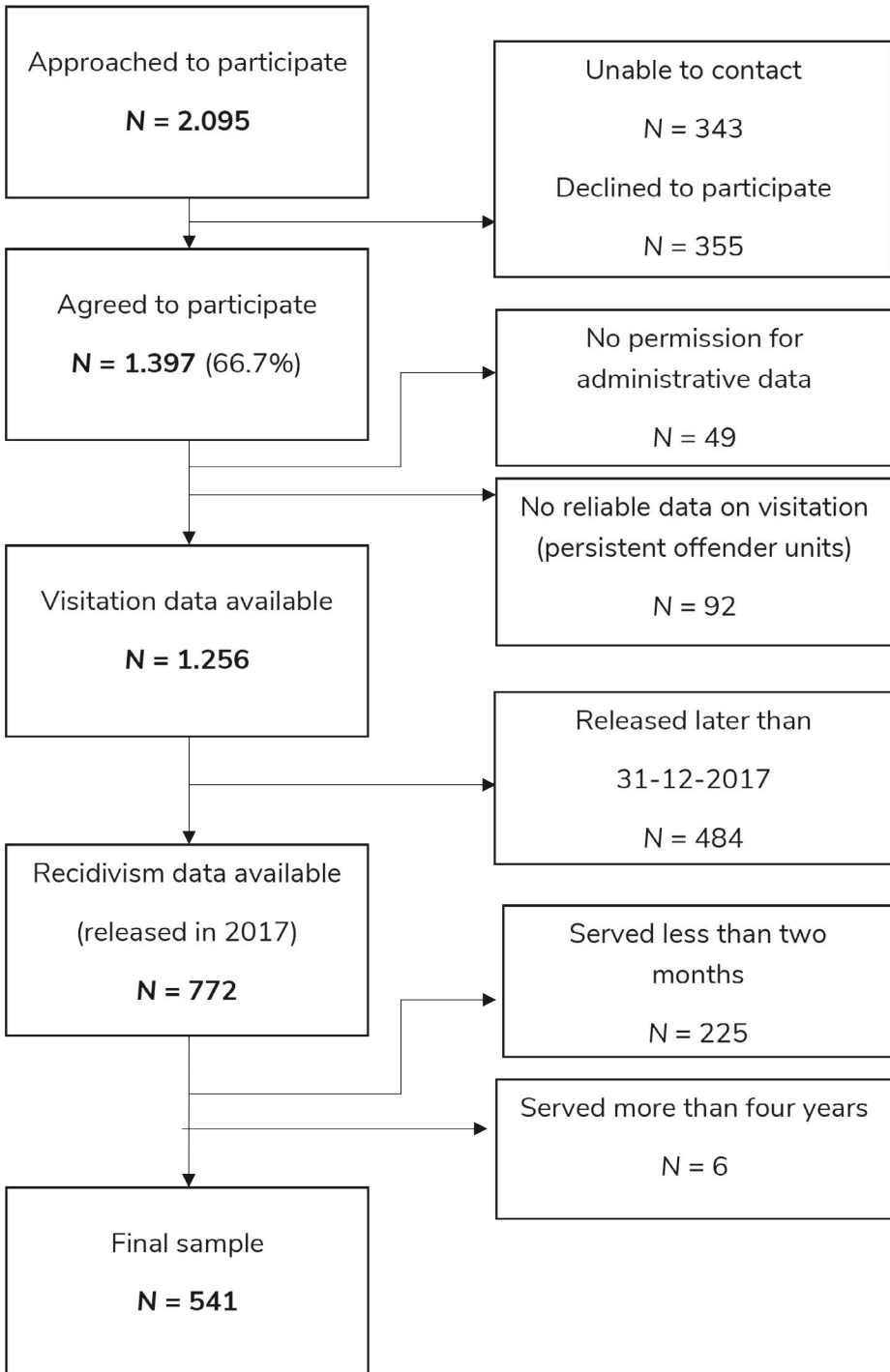
In addition to survey and prison administrative data, data for this study are extended with administrative data on criminal history and recidivism, provided by the Scientific Research and Documentation Center of the Ministry of Justice and Security. This database consists of detailed information on registered crimes and convictions and was made available for all DPVS participants who were released in 2017 and gave permission for obtaining administrative data.

Sample

All individuals housed in the eight selected prisons in the Netherlands between January and April 2017 were approached to participate ($N = 2,095$). Of those eligible, 1,397 agreed to participate¹, 1,348 gave permission to use administrative data, such as visitation records, for research purposes. Since visitation records are not uniformly recorded for individuals in persistent offender regimes, these individuals ($N = 92$) were excluded from this study.

For the 1,256 participants with available visitation data, 772 were released in 2017 and could be linked with data concerning recidivism. For the purposes of investigating visitation patterns in terms of frequency and recency, we excluded individuals who served less than two months in prison ($N = 225$). Moreover, six individuals served substantially longer prison terms (namely, 5-15 years in prison) than is common in the Netherlands. We therefore omitted these individuals from our sample. The final sample consists of 541 individuals (see Figure 7.1). In comparison to the total population of the eight prisons at the time of the survey data collection, this sample is slightly younger (on average 35 years old versus 37, $t(2093) = 3.38$, $p < .001$; Cohen's $d = 0.17$), more likely to have been incarcerated for a property offense ($\chi^2(1, N = 2095) = 34.5$, $p < .001$), and had served on average less time in prison (on average five versus 12 months, $t(2089) = 6.42$, $p < .001$; Cohen's $d = 0.32$) than those who were excluded from the analyses.

1 Some individuals ($N = 343$) were unable to be contacted due to language barriers, severe psychological problems or being placed in isolation during the data collection. The most common reasons for not participating were: "lack of interest" ($N = 228$), "distrustful of research" ($N = 35$), and "almost being released" ($N = 10$).

Figure 7.1 Flowchart Displaying the Sample Selection

Measures

Recidivism

For the tests of how the visitation trajectories relate to recidivism, several measures of recidivism were used to account for the complexity of reoffending. We included short and long-term measures of recidivism² from the administrative data on recidivism, as well as measures of the seriousness of the offense for which an individual was reconvicted. Short-term recidivism was measured based on whether a participant was reconvicted within six months after release (0 = no, 1 = yes). Long-term recidivism was measured based on whether a participant was reconvicted within two years after release (0 = no, 1 = yes). Observing recidivism up to two year allows for a conservative test of visitation effects, as prior research has found that visits' effects may weaken over time (Mitchell et al., 2016). All participants had an equal time at risk using these recidivism measures.

In addition, separate measures were created for reconviction for a serious offense (0 = no, 1 = yes) and reconviction for a very serious offense (0 = no, 1 = yes) respectively within six months and two years of release. Serious offenses include any offense with a maximum sentence of four years' incarceration and higher, or any offense that allows for the imposition of pretrial detention. Very serious offenses include any offense with a maximum sentence of eight years' incarceration and higher.

Visitation Patterns

Using prison administrative records from '*TULP Bezoek*' individuals' visitation experiences in the months prior to release were reconstructed. The administrative data indicates on which date(s) each individual received a personal visit. This was used to record the number of visits an individual received in a given "month". Each visit with a unique combination of visitor and visit date were counted as a separate visit³. Following prior research (e.g., Cochran, 2014; Hickert et al., 2018), months were standardized to include four weeks or 28 days so that a consistent number of weekend days were included each month.

Visitation events were analyzed for up to 24 months prior to release. This observation period was chosen since the vast majority of individuals incarcerated in the Netherlands spend less than two years in prison (De Looft et al., 2018). Since

2 We additionally ran analyses with a measure of reconviction within one year of release. The results, which can be requested from the first author, yielded similar conclusions as our models on long-term recidivism (i.e. within two years of release).

3 To illustrate, two unique visitors on one date equaled two visits, like one unique visitor on two dates also equaled two visits.

we are interested in the recency of visits prior to release, we began coding the number of visits in each month preceding release (up to 24 months). The month of release⁴ was therefore considered ‘month 0’. Then, for each month prior to release the total number of visits was recorded. For example, if an individual received three visits in the last two months before release, then that individual scores 3 on the ‘-1 month to release’ and ‘-2 months to release’.

Control Variables

We controlled for several individual characteristics known to be correlated with visitation and recidivism. To start, we included some measures of pre-prison social networks measured with survey data. First, we included a binary measure of whether individuals reported having a partner (0 = no, 1 = yes). Then, we included three measures concerning the amount of contact individuals had with partner, family, and friends prior to incarceration. Participants indicated whether they had no, monthly, weekly, or daily contact with each relationship. We created three separate binary measures of at least weekly contact with partner (0 = no, 1 = yes), at least weekly contact with family (0 = no, 1 = yes), and at least weekly contact with friends (0 = no, 1 = yes). This gauges whether individuals had preexisting sources of social support, which has shown to be a predictor of visitation and post-release success (Atkin-Plunk & Armstrong, 2018).

From administrative data variables were included on age (in years, this pertains to an individuals’ age during the 2017 data collection⁵), nationality (0 = non-Dutch, 1 = Dutch), time served (i.e., the number of months between entry into a Dutch penitentiary and release), the total number of prior incarcerations in the past five years, and index offense (including: property offense [reference category], violent offense, sex offense, drug offense, or other offense).

4 For most of our sample, month of release means release from a closed prison to society. Some individuals were, however, first released from a closed prison to an open regime (and then into society). Since visits are not a part of the programming in open prisons (as individuals are able to see family and friends on furlough), we considered entrance into an open regime as ‘released’. This was the case for 44 individuals in the sample (8.1%). To account for the fact that these individuals may have had less time at risk for recidivism, we controlled for whether individuals were released into an open regime in the logistic regression models. The multivariate results (not shown but can be requested from the first author) yielded the same conclusions.

5 Since our sample consists of individuals who were released in 2017, the recorded age is similar to age at release.

Analytic Strategy

The analyses proceeded in two stages. First, to identify longitudinal visitation patterns, group-based trajectory models were employed using STATA Trajectory Procedure in STATA 2013 (Jones & Nagin, 2013). Parameters defining the level and shape of visitation trajectories were allowed to vary freely across groups. When estimating trajectories, we excluded individuals who were never visited ($N = 113$). This was done because a) adding individuals who never received visits would only add a flat trajectory to the model (Broidy et al., 2015; Ferrante, 2013), b) there is the risk that individuals with few visits would be pulled into the non-visited group, complicating a comparison between non- and low-visited individuals. For the trajectory models, months served in prison prior to release were used as observation points, and the outcome was a count measure of the (unique) number of visits in a given month.

Due to variations in the number of months served in prison between individuals (see Table 7.1; the sample served on average ten months in prison), there is also variation in the number of observation periods each contributes. Since all individuals spent at least two months in prison, scores on ‘-1 month to release’ and ‘-2 months to release’ are complete for all visited individuals included in the trajectory analyses ($N = 428$). Around 22% of this sample served two to four months in prison, meaning visit data was available for 335 individuals at ‘-4 months to release’. Another 18% of the sample spent four to six months in prison, such that 256 individuals still contributed to the trajectories at ‘-6 months to release’. Then, turning to what is considered ‘long-term’ prison stays in the Netherlands (Wermink, 2014), almost one-third of the sample served six months up to one year in prison. Thus, visit data was available for 118 individuals at ‘-12 months to release’. After one year to release, the visitation trajectories are based on a small number of individuals. At the end of our observations (‘-24 months to release’) visit data was available for 27 individuals. Importantly, since we know in which month an individual entered prison, the records for months in the observation period exceeding entrance into prison were set as missing (and thus did not contribute to estimating the trajectories).

We identified the best fitting model based on cubic shaped trajectories, and a count-specific zero-inflated Poisson regression model. In doing so, we were able to prevent disjunct changes in the modeled visitation patterns caused by months without any visits (Hickert et al., 2018). In line with Nagin’s recommendations (2005), the optimal number of groups was selected based on the following criteria: the Bayesian Information Criterion (BIC), Akaike Information Criterion (AIC), average posterior probabilities (AvePP), and odds of correct classification (OCC). In addition,

Wald tests were performed to test for group differences in terms of intercepts and cubic slopes across trajectory subgroups.

Second, we assigned individuals to subgroups based on their maximum posterior group probabilities and used group membership – with non-visited individuals denoted as a separate group – to estimate the effects of these longitudinal visitation trajectories on the likelihood of reconviction within six month and two years after release. Since the outcome is dichotomous, logistic regression models were used. The multivariate models include all control variables described in the ‘measures’ section. Notably, squared variables of age and time served were tested, since these variables may have a non-linear relationship with recidivism, and were omitted if not significant.

7.3 Results

Descriptive Statistics

Table 7.1 provides a descriptive overview of the 541 men included in the analyses. Based on registered crime, 26% of the sample was reconvicted for all convictions, 21% for serious convictions, and 4% for very serious convictions within six months of release. Within two years of release, half of the sample was reconvicted (respectively 42% for a serious offense and 11% for a very serious offense). In terms of visits, individuals in the sample received on average 2.37 visits per month.

Identifying Longitudinal Visitation Patterns

To select the optimal number of groups, we began with estimating a one-group model and proceeded up to a seven-group model. While the BIC statistic is the preferred statistic to choose the optimal number of groups (Nagin, 2005), the BIC and AIC did not reach a minimum in the current study (see Table 7.2 and Blokland et al., 2005). As such, the BIC and AIC failed to identify the optimal number of groups. Additionally, average posterior probabilities (exceeding .79) and OCC values (exceeding 14) were well above the recommended guidelines of respectively 0.7 and five for all groups (Nagin, 2005). We therefore turned to substantive differences between the models to determine the best fitting model.

Table 7.1 Descriptive Statistics

	N	Min	Max	%	M	SD
Reconviction within						
Six months						
All	541	0	1	26	-	-
Serious	541	0	1	21	-	-
Very serious	541	0	1	4	-	-
Two years						
All	541	0	1	50	-	-
Serious	541	0	1	42	-	-
Very serious	541	0	1	11	-	-
Number of visits (per month)	541	0	18.20	-	2.37	2.67
Has a partner	498	0	1	59	-	-
Weekly contact prior to incarceration with						
Partner	484	0	1	60	-	-
Family	541	0	1	67	-	-
Friends	541	0	1	54	-	-
Age (during data collection, in years)	541	19	81	-	35.19	11.63
Nationality (Dutch)	511	0	1	69	-	-
Time served (months)	541	2.07	46.93	-	9.70	8.36
Number of prior imprisonments (in past five years)	541	0	17	-	1.59	2.27
Index offense						
Property	493	0	1	42	-	-
Violent	493	0	1	30	-	-
Sex	493	0	1	5	-	-
Drugs	493	0	1	17	-	-
Other	493	0	1	5	-	-

Table 7.2 Model Fit Statistics of One- to Seven-group ZIP Models

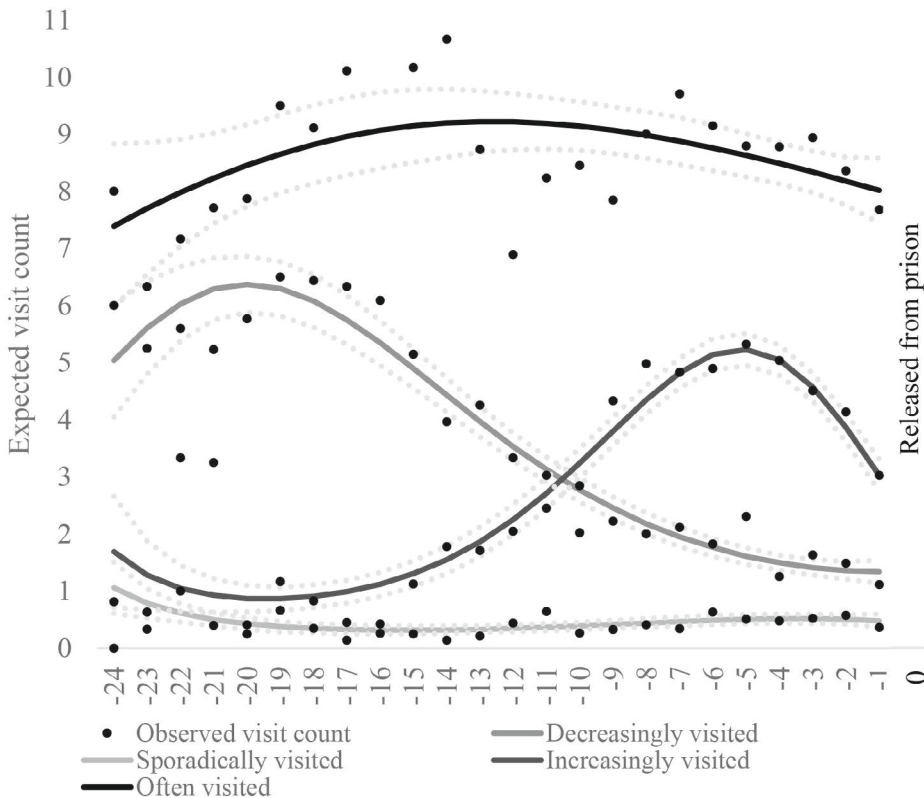
Model	BIC	2(Δ BIC)	AIC	Lowest AvePP	OCC	Group membership %
1	-12637.89	-	-12629.78	1	-	100
2	-9523.25	6229.28	-9504.98	.98	68, 45	48, 52
3	-8810.73	1425.04	-8782.32	.94	48, 20, 59	34, 42, 24
4	-8455.82	709.82	-8417.26	.87	19, 36, 23, 124	26, 23, 33, 18
5	-8296.21	319.22	-8247.51	.79	32, 19, 20, 24, 108	10, 23, 22, 29, 16
6	-8212.29	167.84	-8153.43	.81	38, 26, 40, 24, 14, 99	16, 18, 9, 16, 27, 14
7	-8180.35	63.88	-8111.35	.76	175, 17, 25, 22, 16, 52, 373	5, 14, 15, 17, 29, 15, 5

Note. Δ BIC indicates the relative change in BIC values.

Based on the theoretical and practical relevance of the trajectories identified in the four-group model, this model was preferred. The four-group model distinguished groups of individuals based on frequency (i.e., individuals who were seldom visited or often which visited which remained relatively consistent throughout the observation period) and recency (i.e., individuals who experienced an increase in visits in the months before release, and contrastingly, a group that experienced a decrease in visits in the months before release). Wald's tests were significant for each of the four trajectory subgroups, indicating that each group differed in developmental pattern of visitation (see Appendix 7A for Wald tests).

The three-group model was not preferred because it only distinguishes between groups based on overall frequency of visitation, and therefore fails to reveal the distinct developmental patterns of visitation of the group who experience fluctuations in visits in the months preceding release. The five-group model was not preferred as the fifth subgroup consisted of individuals who were conceptually embodied by a larger trajectory in the four-group model (namely individuals who experience a decrease in visits in the months before release). Finally, the six- and seven-group models were not preferred as the additional subgroups only further distinguished between groups with very slight increases or decreases in the months before release, and thus did not add to the substantive story of visit patterns.

In addition to the a-priori defined group of individuals who were never visited (21%, $N = 113$), the four-group model shows wide variety in the average number of visits in a given month (see Figure 7.2). One group, which we call 'sporadically visited' (18%, $N = 99$), receives on average one visit every two months. This pattern remains consistent throughout the observation period. Another group labelled 'often visited' (14%, $N = 75$) receives between seven to nine visits per month, which remains consistent up until release. While visitation patterns are relatively stable for the 'sporadically visited' and 'often visited' groups, Figure 7.2 shows two other groups that experience fluctuations in visitation patterns in the months preceding release. For the 'increasingly visited' group (27%, $N = 144$), the number of visits increases in the months before release (on average three to five visits in the months before release), while the 'decreasingly visited' group (20%, $N = 110$) experiences a decrease in visits in the months before release (on average one visit per month in the months before release).

Figure 7.2 Longitudinal Visitation Trajectories for the Four-group Model

As noted earlier, our sample spent a diverse amount of time in prison. To address this, we performed robustness checks by separating our sample into four cohorts based on the amount of time served in prison (2-4 months, 4-6 months, 6-12 months, and 1-4 years) and separately analyzed their visitation trajectories (the trajectory models can be requested from the first author). The resulting trajectories are similar to the four-group model presented above, although trajectories distinguishing fluctuations in visits (e.g., ‘decreasingly visited’ and ‘increasingly visited’) were only found for cohorts who spent at least six months in prison.

We also examined the proportion of individuals from each cohort assigned to each visitation trajectory (see Table 7.3). As shown, the largest percentage of individuals who were never visited are in the cohort serving 2-4 months in prison (36%). This is in line with prior Dutch research which suggests that individuals who serve short sentences may choose to opt out of visits, to spare family and friends the hardship of visiting and seeing them in prison (Janssen, 2000). Notable

too is that individuals who served between one and four years in prison have the highest prevalence in the ‘sporadically visited’ and ‘decreasingly visited’ groups, which may suggest that sustaining visits becomes difficult over time. In terms of group assignment, one of the most common patterns across the cohorts was the ‘increasingly visited’ group (ranging from 15 to 34%). Finally, across the cohorts 13-15% of individuals were assigned to the ‘often visited’ group.

Table 7.3 Group Assignment Percentages by Cohort

		Never visited	Sporadically visited	Decreasingly visited	Increasingly visited	Often visited
Cohorts	N	%	%	%	%	%
2-4 months	145	36	8	14	28	15
4-6 months	97	19	18	17	34	13
6-12 months	169	18	17	23	30	13
1-4 years	130	9	33	28	15	15

Taken together, we did not find very different patterns among the separate cohorts than the four-group model presented for the full sample. Moreover, the distribution of individuals in each cohort across the four-group model is logical and in line with prior research. This substantiates that our findings are relevant for the full sample, with a caveat that conclusions concerning the ‘decreasingly visited’ and ‘increasingly visited’ group are most applicable to individuals who spent at least six months in prison. Thus, although attrition led to decreasing power with the amount of time spent in prison, it seems that the potential biases due to attrition are not likely a threat to the validity of our trajectories.

Relation Between Visitation Patterns and Recidivism

Now we consider whether these distinctive visitation patterns predict the likelihood of reconviction within six months and two years after release. Before preceding to the logistic regression models, bivariate associations between the different visitation trajectories and reconviction were examined. Table 7.4 shows the comparison between the four visitation trajectories and the ‘never visited’ group.

Bivariate Analyses

As shown in Table 7.4, compared to the ‘never visited’ group, the three groups with the highest visitation frequency (i.e., ‘often visited’, ‘increasingly visited’, and ‘decreasingly visited’) were less likely to be reconvicted for all convictions and

serious convictions. As anticipated, the group that was often visited was least likely to be reconvicted when compared to the group that was never visited (OR = 0.19 for all convictions, see table for serious convictions). Trajectory group membership was not associated with very serious reconvictions, likely due to low incidences of very serious reconvictions.

Within two years of release, only the ‘often visited’ group significantly differed from the ‘never visited’ group on reconviction for all convictions and serious convictions. For this group the risk of reconviction was significantly lower (OR = 0.34 for all and serious convictions) in comparison to individuals who were never visited while incarcerated. None of the trajectory groups were associated with a very serious reconviction within two years.

Table 7.4 Probability of Reconviction Based on Visitation Trajectory

	Reconviction within six months								Reconviction within two years					
	All		Serious		Very serious				All		Serious		Very serious	
	N	%	OR	%	OR	%	OR	%	OR	%	OR	%	OR	%
Never visited	113	39	Ref	30	Ref	5	Ref	55	Ref	46	Ref	9	Ref	
Sporadically visited	99	37	0.94	33	1.16	7	1.36	57	1.07	49	1.15	15	1.84	
Decreasingly visited	110	22	0.44**	19	0.55	5	1.03	50	0.83	45	0.94	15	1.75	
Increasingly visited	144	20	0.40**	16	0.44**	1	0.25	53	0.95	42	0.84	10	1.11	
Often visited	75	11	0.19***	7	0.17***	1	0.24	29	0.34**	23	0.34*	8	0.90	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

Logistic Regression Models

Next, we examined the multivariate relationship between the visitation trajectory groups and reconviction. Here we omitted very serious reconvictions as a separate category since the trajectory groups were not associated with very serious reconvictions at the bivariate level (with one exception). Table 7.5 shows the resulting estimates from the logistic regression models which includes the trajectory group and all individual characteristics.

As can be seen in Table 7.5, the ‘often visited’ and ‘increasingly visited’ groups were less likely to be reconvicted within six months, even after controlling for important individual characteristics, including measures of individuals’ pre-prison social networks. Individuals who consistently received a high number of visits (OR = 0.29) and who were increasingly visited (OR = 0.44) had a significantly lower risk of reconviction

within six months than non-visited individuals. Effect sizes were smaller for serious reconvictions but still significant for those who were often visited (see Table 7.5). No significant associations were found between being in the ‘sporadically visited’ and ‘decreasingly visited’ groups and reconviction within six months. Moreover, none of the trajectory groups were associated with reconviction within two years.

In terms of control variables, none of the measures of pre-prison social networks emerged as having a significant relation with recidivism. The other control variables do, however, generally show significant effects on recidivism in the expected direction. For instance, individuals with less extensive incarceration history are less likely to recidivate. Since the coefficients presented in the bivariate analyses have changed compared to the logistic regression models, this suggests that the multivariate analyses are at least accounting for the potential selection biases that stem from the included characteristics.

7.4 Discussion

Prison officials worldwide have been encouraged to implement prison visits based on the belief that visits will improve reintegration. The consistency of empirical studies in supporting this premise provides justification for such policy recommendations (Mitchell et al., 2016). Yet, just as consistently, scholars find that the relationship between visitation and recidivism is heterogeneous (Atkin-Plunk & Armstrong, 2018; Bales & Mears, 2008; Cochran et al., 2020). This is not surprising as visitation is a heterogeneous experience, which may elicit heterogeneous responses. Individuals differ not only in *whether* they receive visits, but also *how often* and *when* they receive visits while incarcerated. To further our understanding of how these aspects of visitation relate to post-release offending, this study first identifies visitation patterns among Dutch males and then tests how these patterns relate to several measures of recidivism.

Four key findings emerged from our analyses. First, the group-based trajectory models show that individuals incarcerated in the Netherlands tend to experience one of the five patterns of visitation: no visits, sporadically visited, decreasingly visited, increasingly visited, and often visited. While some groups experience relatively steady patterns (which differ in terms of amount), others experience relatively drastic increases or decreases in the months prior to release. This confirms that visitation patterns can also be identified in the Dutch prison context. Interestingly, despite differences in incarceration and visitation context, these patterns seem comparable to those found in prior research. One difference is apparent: while extant American studies find that the most common visitation pattern is no

Table 7.5 Logistic Regression of Reconviction on Visitation Trajectory Groups and Controls (N = 541)

	Reconviction within six months		
	All		
	B	SE	OR
Visitation trajectory groups			
Never visited	Ref	Ref	Ref
Sporadically visited	0.10	0.33	1.11
Decreasingly visited	-0.52	0.34	0.59
Increasingly visited	-0.82*	0.33	0.44
Often visited	-1.25**	0.46	0.29
Control variables			
Has a partner	0.37	0.31	1.44
Weekly contact prior to incarceration with			
Partner	-0.37	0.31	0.69
Family	0.11	0.27	1.12
Friends	-0.21	0.26	0.81
Age (during data collection, in years)	-0.03*	0.01	0.97
Nationality (Dutch)	0.00	0.01	1.00
Time served (months)	-0.03	0.02	0.97
Number of prior imprisonments (in past five years)	0.33***	0.05	1.39
Index offense			
Property	Ref	Ref	Ref
Violent	0.17	0.23	1.18
Sex	0.08	0.48	1.09
Drugs	-0.14	0.31	0.87
Other	-0.11	0.44	0.90
Constant	-0.05	0.54	0.95
Nagelkerke R ²	0.24		

Note. * $p < .05$; ** $p < .01$; *** $p < .001$

Reconviction within six months			Reconviction within two years					
Serious			All			Serious		
B	SE	OR	B	SE	OR	B	SE	OR
Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
0.34	0.34	1.4	0.22	0.32	1.25	0.30	0.32	1.34
-0.24	0.36	0.79	0.12	0.31	1.13	0.34	0.31	1.40
-0.65	0.35	0.52	0.13	0.29	1.14	0.11	0.29	1.11
-1.31*	0.55	0.27	-0.61	0.36	0.54	-0.51	0.38	0.60
0.27	0.32	1.31	-0.02	0.27	0.99	0.00	0.27	1.00
-0.28	0.32	0.67	0.01	0.27	1.01	-0.01	0.27	1.00
-0.01	0.29	0.99	0.00	0.25	1.00	-0.14	0.25	0.87
-0.40	0.27	0.67	-0.21	0.23	0.81	-0.36	0.22	0.70
-0.03*	0.01	0.97	-0.03**	0.01	0.97	-0.02*	0.01	0.98
0.01	0.01	1.01	0.00	0.01	1.00	0.00	0.01	1.00
-0.02	0.02	0.98	-0.02	0.01	0.98	-0.01	0.01	0.99
0.31***	0.05	1.36	0.42***	0.06	1.52	0.34***	0.06	1.41
Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
0.24	0.24	1.27	0.32	0.20	1.38	0.22	0.20	1.24
0.70	0.49	2.02	-0.39	0.39	0.68	-0.03	0.38	0.97
-0.34	0.35	0.71	-0.10	0.34	0.90	-0.37	0.25	0.69
-0.6	0.53	0.55	0.17	0.35	1.18	0.18	0.35	1.20
-0.23	0.58	0.79	0.63	0.49	1.88	0.22	0.49	1.25
0.24			0.25			0.22		

visitation (Cihan et al., 2020; Cochran, 2012, 2014; Hickert et al., 2018; Young & Hay, 2020), we find a relatively even spread across the visitation groups.

Second, we find that these distinctions are important, as it does not necessarily follow that receiving visits in prisons provides substantial improvements in post-release offending behavior. Results from the multivariate analyses showed that individuals who only sporadically received visits or who experienced a decrease of visits prior to release (i.e., ‘decreasingly visited’) did not significantly differ from the never visited group on reconviction within six months and up to two years after release. One possibility for this result is that these trajectories are a reflection of weak or turbulent relationships. Prior Dutch research has demonstrated that there is a high turnover rate in individuals’ social network and that relationships dissolve while incarcerated (De Cuyper, 2015; Volker et al., 2016). Seeing the declining trajectory, perhaps relationships are complicated for these individuals, which could make visits more unstable, upsetting, and, consequently, less effective (Beckmeyer & Arditti, 2014; Tasca, Mulvey, et al., 2016; Turanovic & Tasca, 2019). Notably, this result diverges from Cochran (2014), as he found that visits early on were important for recidivism (and our ‘decreasingly visited’ did at some point experience a moderate frequency of visits). It is possible that visits early in the prison term may be more important in an American context as individuals are incarcerated substantially longer than in the Netherlands. For long-term prison stays, visits early on may be especially important to combat adverse prison effects (such as strain), which could have long-term implications.

Third, analyses strongly support the idea that consistent, frequent visitation is linked to reductions in recidivism, especially in the first six months after release. We found that individuals who were often visited had a 71% decreased likelihood of being reconvicted for all convictions and 45% decreased likelihood for serious convictions within six months of release when compared to the ‘never visited’ group. This was found even when accounting for several individual differences, including pre-prison social networks. This association did, however, seem to attenuate over time (as evidenced in our model on long-term recidivism). There are several possible reasons for this (Bahr et al., 2010; LeBel et al., 2008; Visher et al., 2004), including that social network may mainly work as a “landing spot” after release, as many individuals turn to family for help once released. While family members may be welcoming, a prolonged reliance on family for instrumental support may be difficult and increase tensions (Mowen et al., 2019). Nonetheless, our results suggest – similarly to Cochran (2014) – that sustained, frequent visits seem most effective at reducing future offending. This may, in part, be due to the types of relationships

from which these individuals receive visits and the quality of the visits. This is a likely explanation as we observed in an exploratory analysis that individuals in the ‘often visited’ group were more likely to have a partner and have had weekly contact with them prior to incarceration when compared to the never visited group. A few studies have found that visits from romantic partners were associated with reductions in recidivism (Atkin-Plunk & Armstrong, 2018; Bales & Mears, 2008). More research is needed, however, to understand the mechanisms behind this result.

Fourth, receiving more visits near release seems important for short-term recidivism. Individuals who experienced an increase in visits in the months prior to release were 56% less likely to be reconvicted within six months than non-visited individuals but these visits were not associated with reconviction within two years of release. One plausible explanation for this short-term effect is potential differences in the expectation and actual provision of practical and emotional support that families can provide for individuals when returning home (Berg & Huebner, 2011). Nevertheless, even if these visits may only reduce risks of recidivism in the short-term, any reduction can be considered beneficial as recidivism risks are especially high in the first months following release (Wartna et al., 2011).

Given the results of this study, policy measures aimed at providing opportunities for incarcerated individuals to be visited more frequently or consistently are warranted. Based on prior Dutch and American research, one measure which is likely to increase the number of visits individuals receive is placing them in prisons close to their social network (see Chapter 4; Clark & Duwe, 2017; McNeely & Duwe, 2020). Additionally, the results of this study suggest that investments in increasing visits near release may be promising, but as it remains unclear as to why these visits are important, more research is needed. It is possible that intensifying visits with other important social groups (such as community volunteers) or probation services may be useful to keep individuals informed of the sources of support available to them upon release. With that said, purely increasing visit possibilities may not necessarily reduce recidivism, as visits are not uniformly positive, nor are all visitors supportive. More research is needed to further unpack when and under which circumstances visits are beneficial.

Finally, there are some limitations worth noting. First, although our rich data allowed us to account for known differences between visited and non-visited individuals, which substantially reduced selection bias, our analyses only account for observable confounding influences and the small (sub)samples limit the statistical power of our models. Future studies therefore ought to further confront the issues of selection bias by using large samples and analytical strategies such as instrumental variable analyses

to increase confidence in the results. Second, and relatedly, while we accounted for important measures of individuals' pre-prison social networks, these measures do not capture the quality of the relationships, which may be more consequential than the frequency of contact (Atkin-Plunk & Armstrong, 2018). Using more dynamic measures of individuals' social networks has the potential to further untangle some of the results found here. Also, we were unable to include measures of an individuals' social economic status. This seems important as visits often require the availability of economic resources and individuals who come from families and communities that lack such resources may be less likely to receive visits (Cochran et al., 2017; Cochran et al., 2016). Moreover, lack of such resources may also make it more difficult for individuals to find housing and employment, perhaps making these individuals more vulnerable to reoffend (Berg & Huebner, 2011; Christian et al., 2006). Third, as our sample served on average ten months in prison, our trajectory analyses included very few individuals at the end of our observation period. This could lead to biased estimates as the composition of the groups may change over time, therefore the trajectories should be interpreted cautiously. That said, when we separated our sample based on their differing lengths of time in prison, we did find similar trajectories. However, the trajectories 'decreasingly visited' and 'increasingly visited' seem most applicable to individuals who have spent at least six months in prison.

These limitations notwithstanding, the current study demonstrates that when we account for differences in visitation experiences (in terms of frequency and recency) and potential selection effects, visit effects are modest. Nevertheless, the results are striking for a context in which individuals are incarcerated for short periods of time and where prison regimes are considered to have a rehabilitative focus (although the Dutch prison climate has become more punitive in recent years, Kruttschnitt and Dirkzwager, 2011). It is also possible that these modest effects are a result of testing visits' effects on recidivism, which is a rather limited measure of post-release success. Recidivism is only one outcome of a process which demands many changes from individuals and these measures capture not only individual behavior, but also reflect the decision making of the criminal justice system (Berghuis, 2018; Wright & Cesar, 2013). Not only that, but theoretical arguments suggest that visits may have broader benefits for emotional and instrumental support after release, yet the overwhelming focus of empirical study is on recidivism (with a few exceptions, see Brunton-Smith & McCarthy, 2017; Hickert et al., 2019). Explorations of whether and how receiving visits – in all its complexity – impacts the emotional and practical challenges individuals face during reentry seem fruitful and

may even reveal that visits' effects are more profound once we understand when, which, for whom, and in what ways visits are effective.

Appendix 7A Wald Tests on Differences Between Intercepts and Cubic Slopes Across Four Trajectory Subgroups

	Often visited vs. Sporadically visited	Decreasingly visited vs. Sporadically visited	Increasingly visited vs. Sporadically visited	Decreasingly visited vs. Increasingly visited	Increasingly visited vs. Often visited	Decreasingly visited vs. Often visited
Intercept	255.04***	29.07***	72.96***	15.03**	239.06***	242.13***
Cubic slopes	8.45**	21.73***	7.09**	113.47***	70.70***	13.45**

Note. Last group is reference group; ** $p < .01$; *** $p < .001$

