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To cite this article: Ankie T. A. Menting, Bram Orobio de Castro & Walter Matthys (2016) Children of mothers being released from incarceration: characteristics and potential targets for intervention, European Journal of Developmental Psychology, 13:4, 407-423, DOI: [10.1080/17405629.2015.1089770](https://doi.org/10.1080/17405629.2015.1089770)

To link to this article: <http://dx.doi.org/10.1080/17405629.2015.1089770>



Published online: 25 Sep 2015.



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Children of mothers being released from incarceration: characteristics and potential targets for intervention

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ABSTRACT


Incarcerated mothers and their children may face a multitude of problems. To identify possible targets for intervention, more clarity is needed about characteristics of these children and their mothers. This study examined children's life events, behaviour problems and social cognitions and mothers' parenting behaviours as potential targets for intervention with mothers being released from incarceration, in the Netherlands with a culturally diverse sample. Participants were 121 children of mothers being released from incarceration and 63 children of comparison mothers from disadvantaged areas, without a history of incarceration. Children of mothers being released from incarceration were more disadvantaged in life events, had more behaviour problems, and their mothers' parenting behaviours were characterized by lower involvement and poorer monitoring compared with children of comparison mothers. Suboptimal parenting behaviours of mothers being released from incarceration were statistically associated with children's behaviour problems. Hence, these children face more difficulties that may contribute to problematic development than children from another at-risk population.

ARTICLE HISTORY Received 25 July 2014; Accepted 30 August 2015

KEYWORDS Incarcerated mothers; life events; behaviour problems; parenting; social cognitions; intervention

Introduction

Children of incarcerated parents have been called “the hidden victims of imprisonment” (Cunningham & Baker, 2003): the number of children affected by parental incarceration is largely unknown and parental incarceration has been associated with multiple adverse outcomes. These adverse outcomes

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include child antisocial behaviour, offending, mental health, school failure and unemployment (Murray & Farrington, 2008b), with clearest effects on antisocial behaviour (Murray, Farrington, & Sekol, 2012). Because children are more likely to be primarily reared by their mother than by their father, maternal incarceration may have more consequences than paternal incarceration: during arrest, during incarceration and *after* incarceration (e.g., Dallaire, 2007; Dallaire & Wilson, 2010).

After their incarceration, at least a substantial part of the incarcerated mothers regain parenthood and have to rebuild the parent–child relationship. Resumed parenting by formerly incarcerated mothers may be hampered by a number of difficulties, as maternal incarceration is not the only difficulty in the lives of these children and mothers. Risk factors tend to accumulate in these families, where both pre-existing disadvantages and maternal imprisonment (amongst others) may impact children’s development (Murray & Farrington, 2008b). Hence, children of incarcerated mothers may have to cope with a number of environmental adversities, such as parental and familial difficulties (e.g., substance abuse, mental illness, lack of education, poverty and instability; Phillips, Erkanli, Keeler, Costello, & Angold, 2006) and individual factors that may both partly explain their heightened risk. However, little is known about the actual accumulation of problems for children affected by maternal incarceration.

Knowledge about the presence of presumed risk factors in children affected by maternal incarceration might be especially important. First, well-known risk factors for poor lifespan outcomes in general, and specifically antisocial behaviour, are highly understudied in this specific population. More clarity is needed about the extent to which these children face adversities besides maternal incarceration, compared with other at-risk children. Are there any specific adversities to be noticed at an early age? Second, these indications of extra risk may provide clues for intervention targeting these families. Therefore, it seems especially important to study factors that may serve as targets for effective intervention or prevention: modifiable factors associated with poor outcomes. For example, both children’s social cognitions (e.g., Lansford et al., 2006) and maternal parenting behaviours (e.g., Hovee et al., 2009) have been linked to negative developmental outcomes. Indeed, child-based cognitive-behavioural therapy, focused on social cognition, and behavioural parent training are currently the most effective intervention methods for youth with antisocial behaviour problems (e.g., McCart, Priestler, Davies, & Azen, 2006). Hence, children’s social cognitions and maternal parenting behaviours are important candidates as targets for intervention. Aim of this study was therefore to assess life events and behaviour problems as indicators of problems these children might face, and social cognitions and parenting behaviours as potential targets for intervention.

Life events and behaviour problems

For children of incarcerated mothers, the number of experienced stressful life events may be relatively high (e.g., Mackintosh, Myers, & Kennon, 2006). Maternal incarceration will likely exacerbate some of these life events. For example, maternal incarceration may result in children being passed amongst caregivers, which may be accompanied with residential and school changes (Hissel, 2014). Hence, difficulties that might be prevalent before incarceration are likely to exacerbate during incarceration, which may increase the likelihood of adverse outcomes for these children (Hagan & Dinovitzer, 1999).

Likewise, behaviour problems might be prevalent before, during and after maternal incarceration. Children's behaviours may be diverse: some children might show no difficulties at all, whereas others might show emotional problems, conduct problems, hyperactivity or peer problems (e.g., Hanlon et al., 2005; Murray, 2007; Poehlmann, 2005; Shlafer & Poehlmann, 2010). Indeed, a substantial part of youth affected by parental incarceration exhibits borderline or clinically significant internalizing or externalizing problems (e.g., 19 and 33% in Shlafer & Poehlmann, 2010), and meta-analysis of the most rigorous empirical evidence shows that parental incarceration predicts increased risk for antisocial behaviour (Murray et al., 2012). Furthermore, the potential problems may sustain or start later in life-course: A relation between parental incarceration and the development of both internalizing and externalizing problems and disorders through the life-course was found in several studies, even over and above parent-child separation for other reasons (Murray & Farrington, 2005, 2008a).

Social cognitions

Child social cognition may potentially be a target for preventive intervention with children of incarcerated mothers. Aggressive behaviour problems and delinquency have been found to be concurrently and longitudinally related with specific social cognitive deviations, including inadequate encoding of social cues, overly hostile intent attributions and limited and aggressive response generation for social problems (e.g., Dodge & Pettit, 2003; Lansford et al., 2006). Moreover, effects of interventions for behaviour problems may be mediated by changes in social cognition (e.g., Van Manen, Prins, & Emmelkamp, 2004). As far as we know, no research to date has investigated social cognitive functioning of children of incarcerated mothers.

Parenting behaviours

Parenting behaviours of incarcerated mothers may also potentially be a target for preventive intervention. Parental incarceration has been associated with less

optimal parenting in several studies (e.g., Menting, Orobio de Castro, & Matthys, 2015; Phillips, Burns, Wagner, & Barth, 2004). However, none of these studies examined the relation between maternal parenting and behaviour problems for children of incarcerated mothers.

This study

In this study, children's life events, behaviour problems, social cognitions and maternal parenting behaviours are examined regarding Dutch children of mothers being released from incarceration. Although it may be clear that children affected by maternal incarceration are at increased risk compared with their normative peers, less is known about their relative risk compared with other at-risk children and how harmful effects can be prevented in this specific group. For example, in the Netherlands, Hissel, Bijleveld, and Kruttschnitt (2011) conducted an exploratory study with 30 participating mothers, including mothers who were not likely to regain parenthood and only comparing children's behaviours with population norms. In comparing children of incarcerated mothers and children from the general population, the accumulation of risk factors other than maternal incarceration in children affected by maternal incarceration may complicate this comparison. Large differences in low socio-economic status (SES) alone would already bias a comparison with children who do not face adverse environments at all. Indeed, low SES may be an important confounding factor in understanding risks of maternal incarceration: characteristics of low SES are found in incarcerated women (Allen, Flaherty, & Ely, 2010; Blitz, 2006; Tonkin, Dickie, Alemagno, & Grove, 2004) and relatively many behaviour problems are found amongst children from low SES families (Qi & Kaiser, 2003). Thus, both children of incarcerated mothers and children from low SES families are considered at-risk, whereas overlap between these two groups is plausible.

To our knowledge, it is unknown whether children of incarcerated mothers face more difficulties than children of low SES families and which problems should be addressed in interventions which specifically target children of incarcerated mothers. Aim of this study was to investigate whether in families of mothers being released from incarceration, children have experienced more life events, show more behaviour problems and have developed deviant social cognitions, whereas their mothers' parenting behaviours are suboptimal when compared with children and mothers who live in disadvantaged neighbourhoods with low SES. Moreover, children's deviant social cognitions and mothers' suboptimal parenting behaviours were hypothesized to be related to behaviour problems for children of mothers being released from incarceration.

Method

Participants

Participants were 121 children of mothers being released from incarceration and 63 children of comparison mothers, and their mothers. Children's age ranged from 4 to 11 years.

Mothers being released from incarceration were recruited via nationwide screening within penitentiaries or via support organizations as part of a larger intervention study (Menting, Orobio de Castro, Wijngaards-de Meij, & Matthys, 2014). Mothers were either incarcerated and to be released soon (i.e., within 3 months) or recently released (i.e., not exceeding 6 months), and (expected to become once again) caregivers of their children. This study mainly uses pre-intervention data from the intervention study. During the pre-intervention assessment, most mothers (71.3%) had been released from the penitentiary. Still incarcerated mothers saw their children at least twice per month during weekend leaves: biweekly or weekly during a whole weekend. Mothers being released from incarceration originated mainly from the Caribbean (36.8%), South America (33.3%; mostly Surinam) and the Netherlands (20.7%).

The comparison group consisted of 63 children of mothers who lived in disadvantaged neighbourhoods but had never been incarcerated. The comparison mothers originated mainly from Africa (34.9%; mostly Morocco), the Netherlands (27.0%), Asia (20.6%) and South America (11.1%; mostly Surinam).

Sociodemographic information is presented in Table 1. Mothers being released from incarceration were younger at study enrolment, $t(135) = -3.07$, $p = .003$, younger at birth of their first child, $t(134) = -4.66$, $p < .001$, lower educated, $\chi^2(1) = 7.55$, $p = .006$, and relatively often single parent, $\chi^2(1) = 34.06$, $p < .001$, compared with comparison mothers.

Table 1. Sociodemographic information for mothers being released from incarceration and comparison mothers, and their children.

	Mothers being released	Comparison mothers
<i>Child</i>	(<i>N</i> = 121)	(<i>N</i> = 63)
% Boys	50.4	42.9
Age (months)	91.1	86.3
% Biological child	95.9	100.0
<i>Mother</i>	(<i>N</i> = 87)	(<i>N</i> = 63)
Age*	33.0	36.5
Age birth of first child*	20.7	24.2
Number of children	2.8	2.7
% Low educated*	71.3	49.2
% Native Dutch	21.8	28.6
% Single parent*	73.6	25.4

*Groups differed significantly on this characteristic with independent samples *t*-test or χ^2 -test.

Procedure

Participation in the study was voluntary for all participants. All mothers were assured confidentiality. All questionnaires were administered individually and mostly in interview format by project members. Mothers being released from incarceration were visited at home or in the penitentiary twice (intake interview [1.5 h] and pre-intervention assessment [1 h + .5 h for each extra child]), whereas comparison mothers received one home visit (2 h). Child tasks, including social information processing (SIP) tasks, were administered by project members during a home visit or—for most children in the comparison group—at school. A Spanish interpreter and Spanish translations of questionnaires were available when necessary, but were scarcely used as most mothers understood enough of the Dutch language.

Detailed sampling procedures for mothers being released from incarceration are described elsewhere (Menting et al., 2014) and resulted in a consent rate of 87.4%. If mothers being released from incarceration met the criteria (see participants) regarding more than one child, mothers were invited to participate with three eligible children, maximum. All measurements were assessed separately for each participating child, whereby SIP tasks were administered during a later occasion—when all mothers returned home and contact with children was possible during a home visit. Mothers being released from incarceration received gift vouchers as compensation for the time spent to complete these and further questionnaires as part of the larger study. These mothers signed an informed consent form prior to participation and the study was approved by the Ethics Committee of the Utrecht University Faculty of Social Sciences.

Recruitment of comparison families took place in neighbourhoods that were designated by the Dutch government as districts facing the most serious problems in terms of housing, employment, education, integration and safety (Ministerie van VROM, 2007). The mothers were recruited by letter via their children's schools; 69 of 231 approached families (29.9%) signed up for participation in a study on children from disadvantaged areas' well-being. Data of six families were excluded from analyses because of incompleteness of data ($N = 3$), previous maternal incarceration ($N = 2$) or because the child's *father* filled out the questionnaire during the home visit ($N = 1$). Participants received a small present in return for their participation.

Measures

Basic demographics

Sociodemographic information and life events were assessed with a basic demographics and family functioning form. Sociodemographic information included mothers' highest completed educational level, which ranged from 0 (did not complete primary school) to 8 (university). Mothers' educational level was classified as "low-educated" if mothers had not obtained a "basic qualification"

(i.e., educational levels lower than secondary vocational education [MBO], the minimum educational level required for finding a job). In the Netherlands, schooling is compulsory until the age of 18 or until young people have obtained a basic qualification.

Mothers filled out a list of life events for their children. For 12 life events (moving, birth of a brother/sister, divorce, death of a family member, death of a grandparent, death of another important person, hospitalization, serious illness/hospitalization of a parent, parent's job loss regarding a long-term job, a parent's new partner, school change within school type and class repeating), mothers filled out whether this event took place, how often and at which age(s). In addition, mothers were asked to report "other life events." The total number of life events children experienced so far was used in this study. For all categories except "other life events," we used the actual number of times a life event took place. If this number was not known, but the life event happened more than once, we replaced the missing value by 2. As the "other life events" category included events like domestic violence, sexual abuse and maltreatment, an actual number of times was often not appropriate. Therefore, we used the number of other life events mentioned. Maternal incarceration was not counted as life event, to avoid preset differences between the two groups of children.

Strengths and difficulties questionnaire (SDQ)

The SDQ (Goodman, 1997) is a brief questionnaire designed to measure children's antisocial and prosocial behaviours. The 25 items are divided between 5 scales: hyperactivity, emotional symptoms, conduct problems, peer problems and prosocial. Aggregation of the first four scales leads to a total difficulties score. Mothers answered for each item whether the item was *not true*, *somewhat true* or *certainly true* for their child.

Internal consistencies for hyperactivity (Cronbach's $\alpha = .78$), emotional symptoms (Cronbach's $\alpha = .65$), conduct problems (Cronbach's $\alpha = .66$) and the total difficulties score (Cronbach's $\alpha = .80$) were (nearly) adequate. However, internal consistencies for peer problems (Cronbach's $\alpha = .50$) and prosocial (Cronbach's $\alpha = .54$) were inadequate. Therefore, these two scales were not used in further analyses.

Social information processing

Two age-appropriate tasks, consisting of vignettes in which a child was hindered by a peer whose intent was ambiguous, were used to measure SIP in participating children. We used z-scores in our analyses, to be able to compare the results of the two tasks. To assess interrater reliability of coded open-ended questions, all answers were coded by two independent coders.

4- to 6-years-old children. For the youngest children, a SIP task consisting of 14 vignettes, based on previously used tasks (Crick & Dodge, 1996; Orobio de

Castro, Merk, Koops, Veerman, & Bosch, 2005; Webster-Stratton & Lindsay, 1999), was used. The first eight vignettes assessed response generation. Children were asked how they would respond if they would actually experience this particular situation. Each response was coded as physical/destructive aggression (2), verbal aggression/coercion (1) or solution/no response towards the other/don't know (0). The children's first response (i.e., an average response for the eight vignettes) was used to assess aggressiveness. The Cronbach's α for the aggressiveness of first response variable was .79. The interrater reliability (Cohen's kappa) was on average .80, ranging from .46 to .96 across the coded open-ended questions.

The last six vignettes assessed attribution of others' intentions with an open-ended question and a multiple choice question. For both questions, answers that reflect purpose or hostile intent were rated as 1, whereas other answers were rated as 0. The interrater reliability of the open-ended question was on average .73, ranging from .59 to .83. An average hostile intent score was calculated, for which the Cronbach's α was .46. Because of this inadequate internal consistency, hostile intent attribution of 4- to 6-year-old children was not used in further analyses.

From 7 years onwards. For older children, a SIP task consisting of five vignettes was used. After each vignette, seven questions were asked. Here, answers regarding three questions were used. The other four questions concerned practice and approval of aggressive and assertive responses.

Aggressiveness of first response was assessed with the open-ended question "What would you do now?". Each response was coded as physical/destructive aggression (2), verbal aggression/coercion (1) or solution/no response towards the other/don't know (0). The Cronbach's α for the aggressiveness of first response variable was .69. The interrater reliability was on average .73, ranging from .59 to .91.

Intent attribution was assessed with an open-ended question and a 7-point rating scale (*accidentally* [1] to *purposely* [7]). Answers to the open-ended question that reflected purpose or hostile intent were rated as 1, whereas other answers were rated as 0. Answers to the open-ended questions and rating scales were combined by standardizing each variable and taking their average. The Cronbach's α for the resulting hostile intent attribution variable was .79. The interrater reliability of the coded open-ended question was on average .81, ranging from .63 to .94.

Alabama parenting questionnaire

The Alabama parenting questionnaire (APQ; Shelton, Frick, & Wootton, 1996) is a self-report questionnaire designed to measure the most important aspects of parenting behaviours related to disruptive behaviour problems in children. Its 42 items are divided into the following scales: involvement (10 items), positive parenting (6 items), poor monitoring/supervision (10 items), inconsistent

Table 2. Behaviour problems.

	Mothers being released (<i>N</i> = 112)		Comparison mothers (<i>N</i> = 62)		Effect size <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
SDQ—total difficulties	11.47*	6.14	9.18*	5.39	0.39
SDQ—emotional symptoms	2.90	2.21	2.82	2.37	0.04
SDQ—conduct problems	2.01	1.91	1.55	1.55	0.26
SDQ—hyperactivity	4.37**	2.97	3.24**	2.23	0.41

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

discipline (6 items), corporal punishment (3 items) and other discipline practices (7 items). In this study, two items were deleted because some participants were still incarcerated and the unfeasibility of those items was considered too confronting: “You attend PTA meetings, parent/teacher conferences, or other meetings at your child’s school” (involvement) and “Your child fails to leave a note or to let you know where he/she is going” (poor monitoring). Participants responded on a 5-point frequency scale (*never to always*). Internal consistencies were adequate for four of five meaningful subscales, with Cronbach’s α ’s ranging from .61 to .75. Internal consistency for corporal punishment was inadequate (Cronbach’s $\alpha = .55$). Therefore, this subscale was not used in further analyses.

Data analysis

First, between group differences in life events, behaviour problems, social cognitions and parenting behaviours were examined using two-sided independent samples *t*-tests. To prevent chance capitalization, we used an overall *p* of less than .05 for all summed *p*-values in each family of tests as the criterion for statistical significance (Stevens, 2009). Second, bivariate correlations (Pearson’s *r*) between the study variables were examined for children of mothers being released from incarceration.

For the families affected by maternal incarceration, data were collected regarding each participating child. Data regarding all participating children were included. For example, the APQ was filled out and included separately for each participating child. However, for descriptive maternal and familial variables, each family was included once for the 30 families with more than one participating child. Preliminary analyses with one child per family revealed highly similar results compared with the results below.

Results

Life events

The total number of life events differed significantly between groups, $t(153) = 6.87$, $p < .001$, equal variances not assumed, $d = .99$. Children of mothers being

Table 3. Parenting behaviours.

	Mothers being released			Comparison mothers			Effect size
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>d</i>
APQ—involvement	111	30.9***	4.9	60	34.8***	4.0	-.86
APQ—positive parenting	112	25.1	3.4	63	25.7	3.1	-.16
APQ—poor monitoring	110	12.2*	3.5	60	11.1*	2.4	.36
APQ—inconsistent discipline	112	14.3	4.4	63	13.3	3.4	.24

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

released from incarceration ($M = 7.93$, $SD = 4.19$) had experienced more life events than children of comparison mothers ($M = 4.03$, $SD = 3.33$).

Behaviour problems

For behaviour problems, means and standard deviations for both groups are presented in Table 2. Hyperactivity and overall difficulties differed significantly between groups, respectively, $t(156) = 2.82$, $p = .005$, and $t(172) = 2.46$, $p = .02$, equal variances not assumed. For both variables, children of mothers being released from incarceration experienced more problems than children of comparison mothers. No differences between the two groups of children were found for emotional symptoms, $t(172) = 0.22$, $p = .83$, and conduct problems, $t(172) = 1.62$, $p = .11$.

Scores above the 80th percentile are considered borderline scores, and scores above the 90th percentile are considered deviant scores (Goedhart, Treffers, & Van Widenfelt, 2003). The average total difficulties score and conduct problems score of children of mothers being released from incarceration fell within the borderline range. Other average scores fell within the normal range for both groups. For children of mothers being released from incarceration, 32.1% displayed deviant scores regarding total difficulties, 14.3% regarding emotional symptoms, 28.6% regarding conduct problems and 22.3% regarding hyperactivity. For children of comparison mothers, 17.7% displayed deviant scores regarding total difficulties, 24.2% regarding emotional symptoms, 24.2% regarding conduct problems and 9.7% regarding hyperactivity.

Social cognitions

No group differences were found for social cognitions. Both aggressiveness of the first response, $t(141) = .92$, $p = .36$, $d = .15$, and intent attribution, $t(80) = -1.47$, $p = .14$, $d = -0.34$, did not differ significantly between groups.

Parenting behaviours

For parenting behaviours, means and standard deviations for both groups are presented in Table 3. Mothers being released from incarceration reported less

Table 4. Correlations between life events, social cognitions, behaviour problems and parenting behaviours for children of mothers being released from incarceration.

	1	2	3	4	5	6	7	8	9	10
1. Total life events										
2. SDQ—total difficulties	.27**									
3. SDQ—emotional symptoms	.26**	.69***								
4. SDQ—conduct problems	.08	.65***	.20*							
5. SDQ—hyperactivity	.22*	.81***	.34***	.46***						
6. SIP—aggressive first response (z-score)	-.01	.03	.05	-.02	.00					
7. SIP—hostile intent attribution (z-score)	-.01	.15	-.01	.15	.24	.34*				
8. APQ—involvement	.02	-.34***	-.09	-.24*	-.29**	-.06	-.01			
9. APQ—positive parenting	-.05	-.11	-.01	-.12	-.05	-.17	.10	-.38***		
10. APQ—poor monitoring	.10	.22*	.07	.31**	.15	.02	-.11	-.34***	-.54***	
11. APQ—inconsistent discipline	.05	.40***	.17	.32***	.41***	-.12	.12	-.04	.16	.20*

* $p < .05$, ** $p < .01$, *** $p < .001$.

involvement and poorer monitoring than comparison mothers, respectively, $t(143) = -5.69, p < .001$, and $t(157) = 2.27, p = .01$, equal variances not assumed.

Relations between behaviour problems, social cognitions and parenting behaviours

As shown in Table 4, significant correlations between parenting behaviours and child behaviours were found. Involvement correlated negatively with total difficulties, conduct problems and hyperactivity. Poor monitoring correlated positively with total difficulties and conduct problems. Inconsistent discipline correlated positively with total difficulties, conduct problems and hyperactivity. No significant correlations between social cognitions and behaviour problems were found.

Discussion

Children of mothers being released from incarceration have experienced more life events, show more behaviour problems, and their mothers' parenting behaviours are less optimal compared with children and mothers from disadvantaged neighbourhoods with no history of incarceration. Suboptimal parenting behaviours of mothers being released from incarceration were associated with children's behaviour problems.

Children of mothers being released from incarceration have experienced more life events than children of comparison mothers, apart from incarceration of their mothers. In particular, the relatively high numbers of residential changes, divorce of parents, parents' new partners, school changes and class repeating are striking, when visually inspecting the data. These results are in line with earlier research (Mackintosh et al., 2006) and point to relative unstable courses of life for these children. Examination of data revealed that a substantial part of life events took place, in all probability, before mothers' incarceration, and may therefore not be related to maternal incarceration in itself.

Consistent with our hypothesis, children of mothers being released from incarceration show more general behaviour problems and specifically hyperactivity than children of comparison mothers. Groups did not differ in emotional symptoms and conduct problems. Given the at-risk status of the children affected by maternal incarceration, the relatively few differences between the two groups might be surprising. However, one should bear in mind that our samples consist of relatively young children and that problems—such as conduct problems—may become increasingly apparent later in their lives. Moreover, *both* of our samples consist of at-risk populations, which means that “no difference” is not necessarily synonymous with “no problems.” As expected, comparison with norms also revealed that relatively many comparison children displayed deviant scores on all behavioural scales, except for hyperactivity. Hence, although

these results reveal relatively few behavioural differences between the two at-risk populations, these results also confirm relatively high levels of behaviour problems for both groups, when compared with the general population.

Apparently, social cognitions of children of mothers being released from incarceration do not differ from social cognitions of comparison children. No group differences were found regarding aggressiveness of first responses and hostile intent attribution. As social cognitions of these children were only compared with social cognitions of another at-risk population, our results do not indicate whether these children's social cognitions are (still) comparable to social cognitions in the general population. Additional research is needed to examine these children's social cognitions compared with both the general population and older children affected by maternal incarceration. At this point, we have no indications that these children's social cognitions are deviant, and therefore, our results do not suggest a child-based cognitive-behavioural approach for this population.

Consistent with our hypothesis, children of mothers being released from incarceration may be put at extra risk because of their mothers' parenting behaviours. Mothers being released from incarceration reported less involvement and monitoring, and parenting behaviours were related to child behaviour. These results are in line with other empirical evidence linking parenting behaviours to disruptive child behaviour (e.g., Stormshak, Bierman, McMahon, Lengua & Conduct Problems Prevention Research Group, 2000) and extend similar results regarding a larger sample (Menting et al., 2015) in establishing a relation between parenting behaviours and behaviour problems for this specific population. Although causal inferences cannot be made, these results suggest that these mothers' current parenting might be optimized and that changes in parenting might be accompanied by changes in children's behaviour.

The results of this study are subject to limitations. First, comparability of groups examined in this study might be seen as a limitation. Although groups are highly comparable regarding child characteristics, significant differences regarding maternal characteristics exist. However, our purpose was primarily to investigate extra risks of children of mothers being released from incarceration. Therefore, these differences may be interpreted as differences between two at-risk populations with even worse circumstances for families of mothers being released from incarceration. These differences were to be expected beforehand and are largely compatible with this study's aims. However, in this study, the differences regarding mothers' origins might be more problematic than other circumstantial differences. That is, for example, cross-cultural differences in parenting, such as single motherhood and the role of the maternal grandmother, may have influenced the results—as mothers being released from incarceration originated mainly from the Caribbean and Surinam, whereas comparison mothers mainly originated from Morocco and the Netherlands.

Second, assessment of SIP tasks was accompanied by difficulties. For some children, this assessment needed to be postponed to a later moment, at which access to the children was more feasible, because their mother was still incarcerated. Because about half of these children's mothers had meanwhile participated in an intervention (i.e., at least one session of parent training), intervention may have indirectly influenced children's social cognitions. Although direct effects were not to be expected, as the intervention primarily targets parenting and children's *behaviours*, it cannot be completely ruled out that changes in these behaviours are followed by changes in children's cognitions. Furthermore, many of the participating families were cramped for space. Therefore, it was not always possible to talk with children in a separate room, apart from their mother. It is unclear in which direction the mother's presence might have affected findings. That is, children might have given both more social desirable and deviant answers because of their mother's presence. As social cognitions of mothers being released from incarceration differ from social cognitions of comparison mothers (Menting et al., 2015), these mothers may model and be more tolerable of deviant social cognitions. Last, we have omitted hostile intent attribution scores of 4- to 6-years-old children because of inadequate internal consistency. Although we used an age-appropriate task and most 4-year-olds appear to understand their peer's intentions (Katsurada & Sugawara, 1998), questions regarding intent attribution seemed to be difficult for these young children. Future research should examine why answers of these children are inconsistent.

Third, the self-report nature of the data regarding parenting behaviours and using mother as single informant for life events and behaviour problems is a limitation in this study. Although the mother may be the best informant for most of these measures, mothers being released from incarceration might also temporarily have had less insight in their children's lives during their incarceration. Hence, a promising line of research would be to examine differences as reported by other informants and measured during observations. Another limitation regarding the life events is that we took a more cautious approach for comparison mothers who received only one home visit, because of ethical concerns: we did not explicitly ask supplementary questions about sexual abuse and maltreatment, because we were not able to monitor reactions that talking about such events could potentially instigate. Because of the longitudinal character of the research project, detailed questioning was more appropriate for mothers being released from incarceration and may have resulted in more reports of abuse/maltreatment and therefore more "other life events."

The results of this study show that school-aged children of incarcerated mothers face more adversities that may contribute to problematic development than children from another well-known at-risk population. These children, therefore, deserve extra efforts to reduce or prevent possible harm throughout their lives. Furthermore, the results suggest that maternal parenting behaviours may be a target for intervention. Hence, behavioural parent training seems to be

the obvious thing to do in most families. Indeed, there are indications that parent training may be fruitful in these families. Two studies of enhanced versions of the Incredible Years parent training yielded significant effects on parenting and child behaviour in families of mothers being released from incarceration (Menting et al., 2014) and families with antisocial family members (Brotman et al., 2005). These findings suggest utility of parenting programs as a strategy for preventing behaviour problems and diminution of risks.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The original research project is funded by the Dutch Ministry of Security & Justice, Directorate-General for Youth and Sanctions, Judicial Youth Policy Department.

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