



## UvA-DARE (Digital Academic Repository)

### Measuring Repression in Residential Youth Care: Conceptualization, Development and Validation of the Institutional Repression Questionnaire

de Valk, S.; Kuiper, C.; van der Helm, G.H.P.; Maas, A.J.J.A.; Stams, G.J.J.M.

**DOI**

[10.1007/s40894-018-0091-6](https://doi.org/10.1007/s40894-018-0091-6)

**Publication date**

2019

**Document Version**

Final published version

**Published in**

Adolescent Research Review

**License**

Article 25fa Dutch Copyright Act

[Link to publication](#)

**Citation for published version (APA):**

de Valk, S., Kuiper, C., van der Helm, G. H. P., Maas, A. J. J. A., & Stams, G. J. J. M. (2019). Measuring Repression in Residential Youth Care: Conceptualization, Development and Validation of the Institutional Repression Questionnaire. *Adolescent Research Review*, 4(4), 357-368. <https://doi.org/10.1007/s40894-018-0091-6>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

*UvA-DARE is a service provided by the library of the University of Amsterdam (<https://dare.uva.nl>)*



# Measuring Repression in Residential Youth Care: Conceptualization, Development and Validation of the Institutional Repression Questionnaire

S. de Valk<sup>1</sup> · C. Kuiper<sup>2</sup> · G. H. P. van der Helm<sup>3</sup> · A. J. J. A. Maas<sup>4</sup> · G. J. J. M. Stams<sup>5</sup>

Received: 9 May 2018 / Accepted: 27 July 2018 / Published online: 30 July 2018  
© Springer Nature Switzerland AG 2018

## Abstract

Repression in residential youth care institutions threatens youth's positive development. When youth experience arbitrary use of power, structure, or coercion, this may cause demotivation, reactance or aggression, and diminished chances of rehabilitation in youth. Because institutional repression may be hard to recognize, a valid and reliable measurement instrument is necessary to signal repression in residential institutions. This article outlines the conceptualization, development and validation of the Institutional Repression Questionnaire in a sample of 180 youth (aged 12–24, 32% female) staying in open, secure, and forensic residential youth care institutions. The Institutional Repression Questionnaire is a self-report questionnaire, designed to measure five dimensions of repression: abuse of power, injustice, lack of autonomy, lack of meaning, and dehumanization. The multicomponent structure was confirmed in a confirmatory factor analysis, resulting in 24 items in five subscales: Abuse of Power, Justice, Lack of Autonomy, Meaning, and Humanization. One open-ended question is part of the questionnaire to invite youth to disclose more extreme cases of repression. Convergent validity was established via correlations between the Institutional Repression Questionnaire and the Prison Group Climate Inventory—as a measure of living group climate in residential institutions—and the Basic Psychological Need Satisfaction and Frustration Scale-Intellectual Disability—as a measure of self-determination. The five Institutional Repression Questionnaire subscales demonstrated good internal consistency. The study provides preliminary evidence to support validity and reliability of an adolescent self-report questionnaire of perceived institutional repression as a multidimensional construct. Residential youth care institutions can use outcomes of the Institutional Repression Questionnaire to improve their living group climate.

**Keywords** Residential institutions · Youth care · Repression · Questionnaire development · Psychometric properties

## Introduction

Residential youth care institutions prepare youth with severe behavioral and psychiatric problems to participate in society. Because of these problems, these youths pose a danger to others or to themselves, or they must be protected from their environment. The residential institutions should offer an environment where youth can attain age-specific developmental tasks, such as gaining autonomy, developing positive relationships with their peers, and preparing for their future profession (Roisman et al. 2004; Seiffge-Krenke and Gelhaar 2008). From the perspective of self-determination theory (SDT; Ryan and Deci 2017), psychiatric nurses or social workers should therefore be responsive to the juveniles' basic psychological needs for competence (i.e., perceptions of ability), relatedness (i.e., feeling socially accepted and supported), and autonomy (i.e., making decisions by

✉ S. de Valk  
s.de.valk@jso.nl

- <sup>1</sup> Knowledge and Consultancy Centre, Noothoven van Goorstraat 11E, 2806 RA Gouda, The Netherlands
- <sup>2</sup> Leiden (Youth Expert Centre) and Horizon Youth Care and Education, University of Applied Sciences, Mozartlaan 150, 3055 KM Rotterdam, The Netherlands
- <sup>3</sup> Leiden (Youth Expert Centre), University of Applied Sciences, Zernikedreef 11, 2333 CK Leiden, The Netherlands
- <sup>4</sup> Department of Organization and Personnel Management, Erasmus University, Rotterdam, Burgemeester Oudlaan 150, Mandeville Building, 3062 PA Rotterdam, The Netherlands
- <sup>5</sup> Department of Forensic Child and Youth Care Sciences, University of Amsterdam, Roeterseilandcampus, Building D, Nieuwe Achtergracht 166, 1018 WV Amsterdam, The Netherlands

yourself) to facilitate adaptive social development and personal well-being (Ryan and Deci 2017; Van der Helm et al. in press).

Repression in residential institutions threatens the basic psychological needs of competence, relatedness, and autonomy (De Valk et al. 2017). A recent scoping review defines repression as authorities intentionally acting in a way that harms the youth, or unlawfully or arbitrarily depriving the youth of liberty or autonomy (De Valk et al. 2016). These aspects become repressive when used harmfully, unlawfully, or arbitrarily. For example, staff's acting may—consciously or unconsciously—worsen the youth's problems or violate children's rights (Höfte et al. 2012). The scoping review of De Valk et al. (2016) showed that arbitrary use of power, structure, and coercion may result in youth viewing staff's behavior as unpredictable, unfair and unsafe, which may cause demotivation, reactance or aggression (De Valk et al. 2016; Eltink et al. 2018; Heynen et al. 2016) and diminished chances of rehabilitation (Lipsey 2009; Parhar et al. 2008) in youth.

Institutional repression may be hard to recognize. It may become engrained in institutional routines, policy, and climate (De Valk et al. 2016). Therefore, a valid and reliable measurement instrument is necessary to signal repression in residential institutions. Although aspects of repression—such as the unlawful use of coercive measures or the limited influence of youth in their treatment programs—have been described in literature (Busch and Shore 2000; Paterson et al. 2013; Ten Brummelaar et al. 2017), relevant measures capturing the multiple dimensions of repression do not exist. The goal of this study is to develop a questionnaire that reliably and validly measures institutional repression.

## Measures Related to Institutional Repression

The Prison Group Climate Instrument (PGCI; Van der Helm et al. 2011) is the only instrument that aims to measure institutional repression (Boone et al. 2015; Tonkin 2015). The PGCI consists of four subscales (Support of Staff, Growth, Group Atmosphere and Repression), which together form Overall Group Climate. Van der Helm et al. (2011) described features of repression, such as harsh and unfair control, a weak organizational structure, lack of flexibility, incremental rules, little privacy, extreme boredom and (frequent) humiliation of inmates. The repression subscale of the PGCI is composed of seven items that differ widely in content, assessing compliance, (lack of) trust, understanding, and (lack of) stimulation or deprivation. Examples of items in this subscale are “You have to ask permission for everything” and “These surroundings make me depressive”. The reliability of the repression scale is only moderate, ranging from  $\alpha=0.61$  to  $\alpha=0.80$ , showing great variability among

studies (De Decker et al. 2018; Eltink et al. 2018; Heynen et al. 2014; Ros et al. 2013; Van den Tillaart et al. 2018; Van der Helm et al. 2011). This can be explained by the small number of seven highly heterogeneous items (Streiner 2003). As the repression subscale of the PGCI does not measure multiple dimensions of institutional repression—as described by De Valk et al. (2016, 2017)—there is also a lack of content validity given the underrepresentation of the construct under study.

Other questionnaires only measure elements of repression as part of questionnaires assessing *social climate*. For example, the Correctional Institutions Environment Scale (CIES) by Moos (1975) and the Environmental Quality Scale (EQS) by Gibbs (1991) contain a subscale Autonomy and the Prison Environment Inventory (PEI) by Wright (1985) contain subscales assessing Privacy, Freedom and Structure. Also the questionnaire Measuring the Quality of Prison Life for Prisoners (MQPL; Liebling and Arnold 2002) encompass aspects that relate to repression, such as staff professionalism, fairness, personal autonomy and personal development. Although some of the questionnaires are extensive—containing over 100 items—none of them seems to acknowledge repression as a unique subdimension of social climate (see Tonkin 2015). Also in the newly developed Dutch Living Environment Questionnaire for Penitentiary Institutions (in Dutch: Leefklimaat Vragenlijst Penitentiaire Inrichtingen; Beijersbergen 2017) only few aspects of repression in prisons receive attention, such as (lack of) autonomy and complaint procedures. Furthermore, these questionnaires have only been validated in samples of (youth or adult) prisoners (Boone et al. 2015; Tonkin 2015), and not in samples of youth staying in (non-forensic) residential youth care institutions.

## Conceptualizing Institutional Repression

A review of the literature (De Valk et al. 2015, 2016) and interviews with youth (De Valk et al. 2017) showed that youth may experience different dimensions of institutional repression in residential youth care institutions. First, youth may experience that staff members abuse the power they possess. Power differences between staff and youth are an inevitable element of residential youth care, which staff can use to make and apply rules, to provide structure, to impose sanctions, and to use coercive measures (Goffman 1961). In general, youth seem to accept the exercise of power if they view it as necessary, and many adolescents think they benefit from strict rules or that it would be chaotic if there were no structure (De Valk et al. 2017). However, youth experience repression when staff members use their power arbitrarily or excessively, for example, when rules are suddenly changed or made up, or when staff members use coercive measures when there is no crisis situation. Excessive use of power also

knows extreme forms, such as group punishments or verbal aggression (De Valk et al. 2015).

The second dimension of institutional repression— injustice—comprises the unpredictability of staff’s acting and unfairness of rules. The feeling of injustice relates to whether youth find the staff trustworthy and reliable (De Valk et al. 2017). For example, youth may experience that staff members do not comply with the rules themselves, or that they do not deal with the youth’s complaints seriously. Also the enforcement of punishment may feel unjust, when youth are punished for the actions of others or for something that was out of their control.

Youth may feel that their autonomy is restricted without justification when they are not given the freedom to make decisions they are able and willing to make for themselves. This autonomy dimension is highly dependent on person and context (De Valk et al. 2017; Ten Brummelaar et al. 2017). For example, girls did experience more frustration when they were not granted the opportunity to choose relevant (self-concordant) treatment goals, whereas boys felt restricted in more practical ways, such as set bedtimes and closed doors. Lack of autonomy also involves deprivation of privacy and feelings of being watched constantly (Foucault 1977).

Lack of autonomy could result in lack of meaning during the youth’s stay in the institution. Youth in residential institutions often think the treatment they receive is not oriented toward their individual needs or feel that they are not receiving treatment at all. Youth may experience little influence on their treatment, and may feel highly dependent on staff members or external parties, such as child protection services (Ten Brummelaar et al. 2014). Lack of meaning hinders feelings of competence and thereby full resocialization, which should be the goal of residential youth care institutions (European Convention on Human Rights 1950, art. 5; United Nations Convention on the Rights of the Child 1989, art. 37).

Lastly, youth may feel that staff members ‘forget’ that they are human beings (i.e., dehumanization). Dehumanization is mainly caused by power differences (Lammers and Stapel 2011), whereas empathy is proposed as a requirement for overcoming dehumanization (Haslam 2006). Therefore, youth may experience dehumanization mainly when they feel that staff members do not care for their feelings or do not respond to their arguments (De Valk et al. 2017).

Rationalization was a sixth dimension that arose from the interviews explaining the amount of repression youth experience in the residential institution (De Valk et al. 2017). However, rationalization is a cognitive defense mechanism that helps youth to accept a certain amount of repression they experience, and may be caused by habituation or by empathizing with staff members. Youth may for example think that the amount of repression they experience is compatible

with the environment they are living in. Therefore, rationalization causes youth to feel less frustration when experiencing repression inside the residential institution.

## Institutional Repression and Self-Determination

The first five dimensions of the Institutional Repression Questionnaire can theoretically be related to the three basic psychological needs of SDT (autonomy, competence and relatedness). First the abuse of power clearly limits the youth’s autonomy in the residential institution, but it also hinders relatedness. In the institution, power abuse hinders the development of positive working relationships between staff and youth. Staff may also use their power to hinder youths from relating to significant others. Also when youth experience injustice in the acting of staff members, their autonomy and competence becomes limited. For example, youth may think they are sent to their room for no clear reason. When youth experience lack of autonomy or lack of meaning during their treatment, they are unable to make decisions for themselves or to develop competences that are relevant to them. Lastly, dehumanization hinders the need for relatedness, as youth may feel they are not treated as unique individuals or that their feelings do not matter.

## The Current Study

In order to be able to signal institutional repression, this study aims to develop a valid and reliable assessment instrument in a Dutch cohort: the Institutional Repression Questionnaire. In order to claim construct validity of the Institutional Repression Questionnaire, one must confirm the five dimensions (abuse of power, injustice, lack of autonomy, lack of meaning, and dehumanization) in a confirmatory factor analysis. The sixth dimension of repression mentioned in the theoretical framework—rationalization—is not included in the Institutional Repression Questionnaire, as it is a cognitive defense mechanism (Barriga and Landau 2000; Festinger 1957). Notably, several instruments have been developed already to validly and reliably assess cognitive defense mechanisms (e.g., cognitive distortions) in youth (Gini and Pozzoli 2013; Hoogsteder et al. 2014).

Cronbach’s  $\alpha$  is used as a measure of internal consistency reliability. Convergent validity is supported when the five dimensions of the Institutional Repression Questionnaire are significantly associated (in the expected direction) with the subscales of the PGCI and with the subscales of the Basic Psychological Need Satisfaction and Frustration Scale-Intellectual Disability (BPNSFS-ID; Frielink et al. 2016). The BPNSFS-ID operationalizes whether youth experience fulfillment of the three basic self-determination needs: autonomy, relatedness, and competence.

It is expected that all Institutional Repression Questionnaire subscales correlate with the PGC I subscale Support of Staff, because both repression and support by staff directly involve interactions between youth and staff. Furthermore, it is expected that all subscales of the Institutional Repression Questionnaire correlate with the PGC I subscale Repression, because of the related contents. The Institutional Repression Questionnaire subscales Lack of Autonomy and Lack of Meaning are expected to correlate with the PGC I subscale Growth on the one hand, and the BPNSDS-ID subscales Autonomy Satisfaction, Autonomy Frustration, Competence Satisfaction and Competence Frustration on the other hand. The Institutional Repression Questionnaire subscale Dehumanization is expected to correlate with the BPNSDS-ID subscales Relatedness Satisfaction and Relatedness Frustration. However, the correlations between the Institutional Repression Questionnaire subscales and the BPNSDS-ID subscales are expected to be lower than the correlations between the Institutional Repression Questionnaire subscales and the PGC I subscales. This is because the Institutional Repression Questionnaire and the PGC I both measure dimensions of residential group climate, whereas the BPNSFS-ID measures experiences considering the three self-determination needs in general. These lower correlations would support discriminant validity of the Institutional Repression Questionnaire.

## Methods

### Participants

The sample included 213 youth (mean age = 16.7;  $SD = 2.28$ ) consisting of 70 girls (mean age = 15.8,  $SD = 1.42$ ) and 141 boys (mean age = 17.2;  $SD = 2.50$ ). Two youth did not answer the gender question. Of this sample, 48 youth were staying in an open youth care (OYC) institution (mean age = 15.6,  $SD = 1.44$ , 33.3% female), 89 in a secure youth care (SYC) institution (mean age = 15.7,  $SD = 1.21$ , 56% female) and 71 in a forensic youth care (FYC) institution (mean age = 18.7;  $SD = 2.39$ , 4% female). Seventy-eight percent of these youths were born in the Netherlands. Of the other youth, 6% were born in other Western countries, 6% in Middle America, South America, or the Dutch Antilles, 4% were born in Africa, 2% were born in Asia or the Middle East, and of 5% the ethical background was unknown. A total of 42 and 56% of the adolescents' fathers and mothers, respectively, were Dutch. Of the other fathers, 17% were born in Middle America, South America, or the Dutch Antilles, 13% were born in Africa, 8% in other Western countries, 8% in Asia or the Middle East, and of 11% of the fathers the place of birth was unknown. Of the mothers who were not born in the Netherlands, 12% were born in Middle

America, South America, or the Dutch Antilles, 11% were born in Africa, 7% were born in other Western countries, 7% were born in Asia or the Middle East, and of 8% of the mothers the place of birth was unknown. These numbers are comparable with Dutch averages: in 2017, 54% of the youth in SYC institutions were female, 57% were born in the Netherlands, and 64% of the youth were 15 years or older (Jeugdzorg Nederland 2017); in FYC institutions 2.5% of the youths were female, 49% was 16 or 17 years old and 35% was 18 years or older in 2015 (Dienst Justitiële Inrichtingen 2016). No population information was found on the characteristics of youth in OYC or on the ethnical background of the youth in FYC.

To get an indication of the youth's cognitive development, they were asked about their level of education. Only 135 youth replied to this question and these answers showed that 14 youth (7.8%) attended special preparatory secondary vocational education schools (in Dutch: *Praktijkonderwijs*), 97 youth (53.9%) attended preparatory secondary vocational education (in Dutch: *VMBO* or *V-ROC*) or vocational education (in Dutch: *MBO*), 16 youth (8.9%) attended senior general secondary schools (in Dutch: *HAVO*) or pre-university education (in Dutch: *VWO*) and 8 youth (4.4%) replied with "Something else", such as working or not attending school at all.

The average duration of stay in the residential institution was nine months (Min. = 1 week; Max. = 5 years), based on the answers of 167 youth. The other 46 youth did not answer this question. There were differences in average duration of stay between the three types of institution: youth in the OYC were staying on average five to six months in the institution (Min. = 1 week; Max. = 3 years), youth in SYC 8 months (Min. = 1 week; Max. = four and a half year), and youth in FYC 12 months (Min. = 1 week; Max. = 5 years). If a youth mentioned that he or she had previously stayed in a residential youth care institution, only the current period was counted in the average duration of stay.

### Procedure

Residential youth care institutions participating in the living group climate research of the University of Applied Sciences Leiden were asked whether they were willing to participate in this validation study. Seven residential youth care institutions (one OYC, three SYC, and three FYC) agreed to participate. All youth in these institutions were free to fill in the questionnaire, and received a reward (voucher or shower gel) for completing it. The participants received the questionnaire on paper, after receiving information about the study and instructions of the researcher. While filling in the questionnaire, youth could ask questions to the researcher or to staff members. All participants gave informed consent for participating anonymously and voluntarily by signing



the informed consent form. This study met all criteria (law, informed consent, data storage, anonymity) as written down in the participating institutions' ethical conducts and the research code of conduct of the University of Applied Sciences Leiden (Andriessen et al. 2010).

## Measures

### Institutional Repression Questionnaire

Initial questionnaire development involved consideration of the aims and purpose of the questionnaire, the theoretical and clinical constructs to be covered, the format and readability of the items, and the response format to be used. A pool of 47 items was constructed from a review of the literature and theory (De Valk et al. 2015, 2016), clinical experience of the authors, and interviews with youth (De Valk et al. 2017). These 47 items related to the five described dimensions that have been linked to the repression youth experience (abuse of power, injustice, lack of autonomy, lack of meaning, and dehumanization), and were framed positively and negatively. As such, the items relating to injustice, lack of meaning, and dehumanization were formulated to capture the opposite: justice, meaningfulness and humanization. None of the items contained a denial in order to enhance the comprehension of the items. The items were originally formulated in English based on literature, but subsequently translated into Dutch. Professionals with expertise in youth care and youth with mild intellectual disabilities in open and secure youth care provided feedback on the draft items via email. After review, items with high cognitive complexity were removed, because they were assumed to be incomprehensible for youth with a mild intellectual disability (MID), which are overrepresented in residential institutions for at risk adolescents (Van Nieuwenhuijzen and Vriens 2012). Furthermore, items were reframed to ensure that items wording were simple, accessible to youth, and to avoid complex structuring. One open-ended item was added to invite youth to disclose more extreme cases of repression (i.e. "Are things happening on your ward that you think is not right?").

The remaining 41 items were piloted with five youth residing at an open residential youth care living group. One of the researchers read the items to the youth, and they were asked to rate the item on a five-point Likert-type scale, ranging from *Totally disagree* to *Totally agree*. The respondents could also answer "I don't know". Furthermore, they were asked to provide feedback on item relevance, clarity, and difficulty, and they were asked to give their opinion about the questionnaire in general. The youth could not answer two items because they were overly complex. These items were removed. One item was removed due to irrelevance for OYC institutions ("Staff members call for alarm too quickly").

The youth were only able to reply to five other items after additional explanation, and these were subsequently adjusted to make the item expectantly more fitting with the youth's perceptions. This resulted in a 38-item draft measure, plus one open-ended question (Table 1). In total, eight items remained representing abuse of power, eight items representing justice, nine items representing lack of autonomy, ten items associated with meaning, and three items represented humanization. The possibility to answer "I don't know" was maintained, to prevent youth from choosing one of the five answer options of the Likert-type scale while they actually do not understand the question or do not have an opinion.

### Prison Group Climate Instrument (PGCI; Van der Helm et al. 2011)

The PGCI is a self-report instrument originally used to measure how prisoners experience residential group climate. Since its development it has been widely used in all types of residential institutions, including open, secure, and forensic youth care (Van der Helm 2016). It contains 36 items, and comprises four dimensions showing high levels of internal consistency in the current study: Support of Staff ( $\alpha = 0.92$ ), Growth ( $\alpha = 0.90$ ), Group Atmosphere ( $\alpha = 0.87$ ), and Repression ( $\alpha = 0.75$ ). Together, the 36 items measure Overall Group Climate ( $\alpha = 0.95$ ). Youth rated the PGCI on five-point Likert scales, ranging from 1 (*totally disagree*) to 5 (*totally agree*).

### Basic Psychological Need Satisfaction and Frustration Scale-Intellectual Disability (BPNSFS-ID; Frielink et al. 2016)

The BPNSFS-ID operationalizes satisfaction and frustration with the three basic psychological needs according to the SDT: autonomy, relatedness, and competence. Frielink et al. (2016) found support for convergent and discriminant validity of this questionnaire among 186 adults with mild to borderline intellectual disabilities. This version was chosen—instead of the BPNSFS—because the BPNSFS-ID is easier to comprehend for youth in residential youth care, who regularly have a low level of education or a mild intellectual disability (Van Nieuwenhuijzen and Vriens 2012).

The BPNSFS-ID contains six subscales, showing high levels of internal consistency based on the current study: Autonomy Satisfaction ( $\alpha = 0.71$ ), Autonomy Frustration ( $\alpha = 0.82$ ), Relatedness Satisfaction ( $\alpha = 0.90$ ), Relatedness Frustration ( $\alpha = 0.69$ ), Competence Satisfaction ( $\alpha = 0.80$ ), and Competence Frustration ( $\alpha = 0.86$ ). Youth rated the 24 items on a five-point Likert scale, ranging from 1 (*totally not applicable*) to 5 (*totally applicable*).

**Table 1** Original items of the Institutional Repression Questionnaire

Items
J1. I know what staff members expect of me
J2. The rules on our group are fair
A3. The rules on our group suddenly change
A4. Staff members make up rules for themselves
J5. Staff members follow the rules on our group themselves
J6. Staff members are willing to make an exception (when things are going well)
J7. When staff members do not follow the rules they explain why
J8. I know what will happen if I do not follow the rules
J9. Staff members treat me fairly if I do not follow the rules
A10. The whole group gets punished if one person does something wrong
A11. Discussing with staff members is pointless
A12. Staff members always do what they want
A13. Staff members send me to my room for no reason
J14. I think staff members deal with our complaints seriously
A15. Staff members yell at us
A16. Staff members call us names
L17. I am allowed to make decisions for myself
L18. If I need help from the group leaders I can let them know
L19. I see why my treatment goals are relevant for me
L20. I have to ask permission for everything
L21. I feel like everything I do or say gets reported
L22. I am being watched constantly
L23. Staff members never leave me alone
L24. I have enough privacy in my room
L25. I can go to my room whenever I want to
M26. My stay here makes sense
M27. I learn useful things here
M28. Staff members tell me when I am doing it right
M29. The support I receive suits me
M30. I receive the treatment I want
M31. The things I learn here are useful for when I leave
M32. The things I learn on the group are useful for my treatment
M33. The things I learn on the group are important to me
M34. I am following the required steps to get out as soon as possible
M35. I am bored here
H36. Staff members know me well
H37. I feel like the staff members care for my opinion
H38. Staff members keep to the agreements I make with them
<i>Open-ended item.</i> Are things happening on your ward that you think is not right?

A abuse of power, J justice, L lack of autonomy, M meaning, H humanization

## Data Analysis

Descriptive statistics for each of the 38 closed-ended items in the draft Institutional Repression Questionnaire were examined to identify items with little or no variability, which are not suitable for factor analysis (Tabachnick and Fidell 2007). Given a theoretical basis for five particular dimensions of the Institutional Repression Questionnaire, a confirmatory factor analysis (CFA) was performed. The CFA

tested adequate fit of a five-factor model, treating the items as ordinal. Therefore the diagonally weighted least squares (WLSMV) estimator was used, which does not assume normality and is the best option for fitting CFA models with ordinal data (Brown 2006; Li 2016). The goodness of fit was evaluated using the root mean square error of approximation (RMSEA) and its 90% confidence interval (90% CI), *p* value smaller than 0.05 for test of close fit, Comparative Fit Index (CFI), and Tucker–Lewis Fit Index (TLI). As Brown

(2006) and Kline (2005) recommended, multiple indices were selected in order to provide different information for evaluating model fit. Mplus-software was used to perform the CFA analyses.

Subscale scores were constructed by summing ratings of factor items and dividing them by the number of items on each subscale. Pearson's correlations were used to assess construct validity. Cronbach's alpha score was used in determining internal consistency reliability. These analyses were conducted in SPSS.

## Results

Prior to conducting analyses, 31 cases with greater than 25% missing data or careless response patterns were removed from the data set. On the remaining 180 cases missing data was imputed using the Expectation–Maximization method.

## Confirmatory Factor Analysis

The initial model did not fit the data well: RMSEA = 0.109 [0.104–0.114]; CFI = 0.865; TLI = 0.855. Modification indices were used to improve model fit. First, items with standardized items loadings lower than 0.30 were deleted. Subsequently, items that loaded substantially and significantly (standardized coefficients, ranging between 0.30 and 0.70) on two or more dimensions were deleted. A final model with 24 items provided reasonable fit to the data: RMSEA = 0.077 [0.067–0.086]; CFI = 0.969; TLI = 0.965. The factor loadings for the 24-item solution are provided in Table 2.

## Institutional Repression Questionnaire Characteristics

Subscale scores were derived representing each of the factors of the Institutional Repression Questionnaire by calculating

**Table 2** Confirmatory factor analyses of the Institutional Repression Questionnaire

Items	Abuse of power	Justice	Lack of autonomy	Meaning	Humanization
<b>Abuse of power</b>					
3. The rules on our group suddenly change	0.81				
4. Staff members make up rules for themselves	0.99				
10. The whole group gets punished if one person does something wrong	0.57				
15. Staff members yell at us	0.66				
16. Staff members call us names	0.78				
<b>Justice</b>					
2. The rules on our group are fair		0.80			
5. Staff members follow the rules on our group themselves		0.81			
7. When staff members do not follow the rules they explain why		0.80			
9. Staff members treat me fairly if I do not follow the rules		0.84			
14. I think staff members deal with our complaints seriously		0.73			
<b>Lack of autonomy</b>					
20. I have to ask permission for everything			0.45		
21. I feel like everything I do or say gets reported			0.78		
22. I am being watched constantly			0.83		
23. Staff members never leave me alone			0.89		
<b>Meaning</b>					
26. My stay here makes sense				0.76	
27. I learn useful things here				0.91	
29. The support I receive suits me				0.85	
30. I receive the treatment I want				0.89	
31. The things I learn here are useful for when I leave				0.88	
32. The things I learn on the group are useful for my treatment				0.91	
33. The things I learn on the group are important to me				0.91	
<b>Humanization</b>					
36. Staff members know me well					0.84
37. I feel like the staff members care for my opinion					0.92
38. Staff members keep to the agreements I make with them					0.88



an average score of the ratings on items comprising each subscale. Higher scale scores represented higher levels of the attribute being measured: Abuse of Power ( $M=2.81$ ;  $SD=0.97$ ), Justice ( $M=3.23$ ;  $SD=1.00$ ), Lack of Autonomy ( $M=3.38$ ;  $SD=0.63$ ), Meaning ( $M=3.47$ ;  $SD=0.73$ ) and Humanization ( $M=3.44$ ;  $SD=1.04$ ). The five Institutional Repression Questionnaire subscales demonstrated good internal consistency: Abuse of Power ( $\alpha=0.80$ ), Justice ( $\alpha=0.87$ ), Lack of Autonomy ( $\alpha=0.80$ ), Meaning ( $\alpha=0.94$ ) and Humanization ( $\alpha=0.88$ ).

**Construct Validity**

Correlations among the subscales were all significant and in the expected directions (Table 3). Further, the correlations were in the moderate to large range, suggesting that the subscales were measuring related constructs, supporting convergent validity of the Institutional Repression Questionnaire.

Table 4 shows correlations between the Institutional Repression Questionnaire subscales and the subscales of the PGCI and BPNSFS-ID. Support for convergent validity of the Institutional Repression Questionnaire was provided by the pattern of significant correlations between the subscales of the Institutional Repression Questionnaire and those on the PGCI. The Institutional Repression Questionnaire subscales were all moderately to strongly correlated with the subscale *Support by staff*. However, the correlations between

the subscales of the Institutional Repression Questionnaire were only weakly to moderately correlated with the subscale *Repression* of the PGCI. The highest correlation was found between the Institutional Repression Questionnaire subscale *Meaning* and the PGCI subscale *Growth*.

Furthermore, convergent validity of the Institutional Repression Questionnaire was supported by weak but significant correlations between some subscales of the Institutional Repression Questionnaire and some subscales of the BPNSFS-ID. Considering the Autonomy Satisfaction and Autonomy Frustration subscales, all of the Institutional Repression Questionnaire subscales correlated significantly with one of the two in the expected direction. Furthermore, the Institutional Repression Questionnaire subscale Abuse of Power correlated significantly with both Relatedness Satisfaction and Relatedness Frustration in the expected direction. Furthermore, the Institutional Repression Questionnaire subscale Humanization correlated significantly with all three BPNSFS-ID satisfaction scales, and the Institutional Repression Questionnaire subscales Justice and Meaning correlated significantly with the BPNSFS-ID subscale Competence Satisfaction. The higher correlations between the Institutional Repression Questionnaire subscales and the PGCI subscales than the correlations between the Institutional Repression Questionnaire subscales and BPNSFS-ID subscales confirm discriminant validity of the Institutional Repression Questionnaire.

**Table 3** Correlations among the Institutional Repression Questionnaire subscales

	Abuse of power	Justice	Lack of autonomy	Meaning	Humanization
Abuse of power	1	-0.67***	0.66***	-0.36***	-0.57***
Justice		1	-0.59***	0.72***	0.92***
Lack of autonomy			1	-0.45***	-0.64***
Meaning				1	0.78***
Humanization					1

\*\*\* $p < .001$

**Table 4** Correlations among the Institutional Repression Questionnaire subscales and the PGCI and BPNSFS-ID

Repression Questionnaire subscales:	PGCI					BPNSFS-ID					
	S	G	R	A	T	AS	AF	RS	RF	CS	CF
Abuse of power	-0.43**	-0.28**	0.34**	-0.37**	-0.42**	-0.01	0.22**	-0.18*	0.25**	-0.01	0.10
Justice	0.63**	0.48**	-0.40**	0.46**	0.60**	0.24**	-0.03	0.14	0.06	0.27**	0.01
Lack of autonomy	-0.40**	-0.28**	0.43**	-0.36**	-0.43**	-0.06	0.22**	-0.00	0.09	0.05	0.09
Meaning	0.57**	0.74**	-0.39**	0.42**	0.64**	0.26**	-0.02	0.05	0.13	0.25**	0.04
Humanization	0.66**	0.55**	-0.39**	0.47**	0.63**	0.25**	-0.09	0.15*	0.01	0.27**	0.04

S support by staff ( $N=143$ ), G growth ( $N=143$ ), R repression ( $N=143$ ), A group atmosphere ( $N=143$ ), T total group climate ( $N=143$ ), AS Autonomy Satisfaction ( $N=133$ ), AF autonomy frustration ( $N=133$ ), RS relatedness satisfaction ( $N=133$ ), RF relatedness frustration ( $N=132$ ), CS competence satisfaction ( $N=134$ ), CF competence frustration ( $N=135$ )

\*  $p < .05$ , \*\*  $p < .01$  (one-tailed)

## Open-Ended Question

The open-ended question that was added to invite youth to disclose more extreme cases of repression (i.e. “Are things happening on your ward that you think are not right?”) was answered 47 times. Four youth answered this question with illustrations of repression: “Because of something or someone else I am not allowed to go where I want”, “We are strip searched for nothing and dumped in the isolation cell and we are being beaten by staff members”, “[Staff member’s name] treats some youth unfair. And he also sleeps during his shift and talks with youth about other youth” and “Staff members go too far in their acting and comments.” Twelve times the question was answered with something that concerned the interaction between youth, such as “Stealing” or “Guys used to fight”. In all the other cases the question was answered with “No” or “Not relevant”.

## Discussion

Repression in residential youth care institutions threatens youth’s positive development, because it hinders the fulfillment of the basic psychological needs of competence, relatedness, and autonomy according to SDT (Ryan and Deci 2017). Repression may worsen the youth’s problems or violate children’s rights (De Valk et al. 2016; Höfte et al. 2012). Because institutionalized repression may be hard to recognize, a self-report measure—the Institutional Repression Questionnaire—was developed to measure the multiple dimensions of repression in residential institutions.

This study focused on the reliability and validity of the Institutional Repression Questionnaire in a Dutch sample of youth in OYC, SYC and FYC institutions. CFA confirmed a five-factor structure of the Institutional Repression Questionnaire, comprising the subscales Abuse of Power, Justice, Lack of Autonomy, Meaning, and Humanization. The Institutional Repression Questionnaire showed good to excellent internal consistency for the five subscales, and strong correlations were found between the five dimensions of repression.

Convergent validity was found in associations between the Institutional Repression Questionnaire and PGC subscales (Support of Staff, Growth, Group Atmosphere, Repression, and Total Group Climate) and weak to moderate associations between relevant (i.e., theoretically related) Institutional Repression Questionnaire and BPNSFS-ID subscales. The strong correlations between the Institutional Repression Questionnaire subscales and the PGC subscale Support of Staff are conceptually relevant, as both repression and support directly involve the interactions between youth and staff. The correlation between the Institutional Repression Questionnaire and

the PGC subscale Repression were, however, lower than expected. This might be explained by the fact that the subscale Repression of the PGC contains no specific items measuring abuse of power, lack of meaning and dehumanization. This stresses the added value of the Institutional Repression Questionnaire, which takes into account the multi-dimensionality of repression.

The open-ended question offered youth the opportunity to reveal more extreme experiences of repression. This study showed that some youth use this opportunity and, as such, the Institutional Repression Questionnaire can be an important source of information to detect repression.

The present results should be interpreted in light of the limitations of the study. First, no other sources than self-report measures were included in the current study. Therefore, it was not possible to compare perceived repression with other indications of repression, such as the amount of rules or coercive measures. This information would be useful, as it was not possible to get an indication of the potential influence of context on the youth’s answers in this study. Second, as measurement invariance across gender, type of institution, or age was not considered due to lack of statistical power, this study could not confirm whether the same latent constructs are measured across these different groups. Nor was it possible to test for cross-national measurement invariance of the Institutional Repression Questionnaire, because the study was conducted solely in the Netherlands. Third, it is possible that the reported alpha’s were inflated because they were based on the construction sample and items of the original questionnaire were deleted in order to get a good fit. However, because the reported alpha’s were rather high in the current study, it is to be expected that they remain sufficiently in a new sample. In the light of these limitations, further research should therefore first validate the Institutional Repression Questionnaire in a new (preferably non-Dutch) sample. Furthermore, to be able to use the Institutional Repression Questionnaire as a measure of group climate, future research should also establish the degree of test–retest reliability.

Nevertheless, this study showed first indications that institutional repression could be reliably and validly measured in a clinical population as a multidimensional construct. This is important because—although special committees have been introduced to disclose and study the prevalence of (sexual) abuse of youth in youth care institutions since World War II in the Netherlands (Commissie Geweld Jeugdzorg 2018; Commissie Samson 2012)—institutional repression remains an understudied and underestimated problem in residential institutions. Dahl (2017) stated, for example, that in the Netherlands hundreds of children a year were separated in secure residential youth care institutions without supervision. Sometimes this happened for trivial reasons, such as not participating in a group activity. It is unknown

how often this really happens because it is poorly registered (Dahl 2017; Van den; Heuvel 2018).

Furthermore, the negative consequences of the more hidden elements of repression—such as lack of autonomy and meaning—are easily underestimated. As repression frustrates basic self-determination needs it has the potential to harm youths' development at a cognitive, social-emotional and personality level (Van der Helm and Vandevelde 2018; Vansteenkiste and Soenens 2013). Therefore, repression warrants more attention to institutional practice than given in the last decades.

By signaling elements of repression to staff and institutions by means of the newly developed Institutional Repression Questionnaire climate quality could be improved, because it enhances staff's reflection on their professional acting (Stams and Van der Helm 2017). A positive climate may provide necessary conditions for an effective strength-based and therapeutic residential treatment, which is responsive to the developmental needs of (justice-involved) juveniles in residential institutions (Barton and Mackin 2012; Lipsey 2009; Whittaker et al. 2016). Training staff and team coaching in combination with routine outcome monitoring, in particular with respect to repression, could help staff recognize and correct their own professional behavior. When this leads to youth experiencing less repression, they receive more opportunities for satisfying basic self-determination needs, which are important for full rehabilitation of youth placed in residential institutions.

## Conclusion

To date, it has not been possible to reliably and validly measure the multiple dimensions of repression in residential youth care institutions. This study describes the conceptualization, development, and validation of the Institutional Repression Questionnaire, capturing the five dimensions of repression youth may experience: power abuse, injustice, lack of autonomy, lack of meaning, and dehumanization. Despite the limitations of this study, the questionnaire is a useful tool for youth care organizations and staff members to recognize repression, offering insights into what steps could be taken to diminish repression. Further research is necessary into evidence based efforts to minimize repression in residential youth care in order to provide a positive upbringing and treatment environment.

**Acknowledgements** The authors would like to thank all the youths for their willingness to fill in the questionnaires and the research group Residential Youth Care of the University of Applied Sciences in Leiden for their support in obtaining the questionnaires.

**Author Contributions** SdV conceived of the study, participated in its design and coordination, performed the statistical analysis, interpreted

the results and drafted the manuscript; CK conceived of the study, participated in the coordination and in the interpretation of the results, helped to draft the manuscript and critically reviewed the manuscript; PvdH conceived of the study, helped to draft the manuscript and critically reviewed the implications; AM conceived of the study, critically reviewed the study design and organizational implications; GS conceived of the study, performed the statistical analysis, participated in the interpretation of the results, and critically reviewed the manuscript. All authors read and approved the final manuscript.

**Funding** This study was made possible by the support of the Reformed Civil Orphanage (in Dutch: *Gereformeerde Burger Weeshuis*), Rotterdam, The Netherlands.

## Compliance with Ethical Standards

**Conflict of interest** The authors declare to have no conflict of interest.

**Ethical Approval** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals.

**Informed consent** Informed consent was obtained from all individual participants included in the study.

## References

- Andriessen, D., Onstenk, J., Delnooz, P., Smeijsters, H., & Peij, S. (2010). Gedragscode praktijkgericht onderzoek voor het hbo. Retrieved May 2, 2018, from <https://follio.eu/i/zPx66o7bKrXX?lang=nl>.
- Barriga, A. Q., & Landau, J. R. (2000). Cognitive distortions and problem behavior in adolescents. *Criminal Justice and Behavior*, 27, 36–51.
- Barton, W. H., & Mackin, J. R. (2012). Towards a strength-based juvenile correctional facility: Sustainability and effects of an institutional transformation. *Journal of Offender Rehabilitation*, 51(7), 435–452. <https://doi.org/10.1080/10509674.2012.700688>.
- Beijersbergen, K. (2017). *Ontwikkeling van de Leefklimaat Vragenlijst Penitentiare Inrichtingen*. Leiden: Universiteit Leiden en Dienst Justitiële Inrichtingen.
- Boone, M., Althoff, M., & Koenraadt, F. (2015). *Het leefklimaat in justitiële inrichtingen*. Den Haag: Boom.
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York: Guilford Press.
- Busch, A. B., & Shore, M. F. (2000). Seclusion and restraint: A review of recent literature. *Harvard Review of Psychiatry*, 8(5), 261–270.
- Commissie Geweld Jeugdzorg. (2018). *Interviews over ervaringen in de jeugdzorg die plaatsvonden of begonnen voor 1945*. Retrieved February 4, 2018, from <https://www.commissiegeweldjeugdzorg.nl/actueel/nieuws/interviews-over-ervaringen-met-geweld-in-de-jeugdzorg-in-de-periode-1940-1945.aspx>.
- Commissie Samson. (2012). *Omringd door zorg, toch niet veilig. Seksueel misbruik van door de overheid uit huis geplaatste kinderen, 1945 tot heden*. Amsterdam: Boom Amsterdam.
- Dahl, I. (2017, December). Honderden kinderen belanden zonder toezicht in de isoleercel. Nu komt de minister met een reactie [Hundreds of children are separated without supervision. Now the Minister gives a reaction]. *De Correspondent*. Retrieved January 11, 2018, from <https://decorrespondent.nl/7684/honde>

- rdenkinderen-belangen-zonder-toezicht-in-de-isoleercel-nu-komt-de-minister-met-een-reactie/1489798977524-46fe6537.
- De Decker, A., Lemmens, L., Van der Helm, P., Bruckers, L., Molenberghs, G., & Tremmery, S. (2018). The relation between aggression and the living group climate in a forensic treatment unit for adolescents: A pilot study. *International Journal of Offender Therapy and Comparative Criminology*, 62(7), 1821–1837. <https://doi.org/10.1177/0306624X17712347>.
- De Valk, S., Kuiper, C., Van der Helm, G. H. P., Maas, A. J. J. A., & Stams, G. J. J. M. (2016). Repression in residential youth care: A scoping review. *Adolescent Research Review*, 1(3), 195–216. <https://doi.org/10.1007/s40894-016-0029-9>.
- De Valk, S., Kuiper, C., Van der Helm, G. H. P., Maas, A. J. J. A., & Stams, G. J. J. M. (2017). Repression in residential youth care: A qualitative study examining the experiences of adolescents in open, secure and forensic institutions. *Journal of Adolescent Research*. <https://doi.org/10.1177/0743558417719188>.
- De Valk, S., Van Der Helm, G. H. P., Beld, M., Schaftenaar, P., Kuiper, C., & Stams, G. J. J. M. (2015). Does punishment in secure residential youth care work? An overview of the evidence. *Journal of Children's Services*. <https://doi.org/10.1108/JCS-11-2014-0048>.
- Dienst Justitiële Inrichtingen. (2016). Justitiële Jeugdinstellingen [Correctional Institutions for Juvenile Offenders; Fact sheet]. Retrieved February 22, 2018, from [https://www.dji.nl/binaries/dji-infosheet-jeugdinstellingen-juli-2016-copy\\_tcm41-121765.pdf](https://www.dji.nl/binaries/dji-infosheet-jeugdinstellingen-juli-2016-copy_tcm41-121765.pdf).
- Eltink, E. M. A., Hoeve, T., De Jongh, J., Van der Helm, T., Wissink, G. H. P., I. B., & Stams, G. J. J. M. (2018). Stability and change of adolescents' aggressive behavior in residential youth care. *Child and Youth Care Forum*, 47(2), 199–217. <https://doi.org/10.1007/s10566-017-9425-y>.
- European Convention on Human Rights, art. 5, September. (1950). [http://www.echr.coe.int/Documents/Convention\\_ENG.pdf](http://www.echr.coe.int/Documents/Convention_ENG.pdf).
- Festinger, L. A. (1957). *A theory of cognitive dissonance*. Stanford: Stanford University Press.
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. London: Penguin Books.
- Frieling, N., Schuengel, C., & Embregts, P. J. C. M. (2016). Psychometric properties of the Basic Psychological Need Satisfaction And Frustration Scale-Intellectual Disability (BPNSFS-ID). *European Journal of Psychological Assessment*. <https://doi.org/10.1027/1015-5759/a000366>.
- Gibbs, J. J. (1991). Environmental congruence and symptoms of psychopathology: A further exploration of the effects of exposure to the jail environment. *Criminal Justice and Behavior*, 18, 351–374. <https://doi.org/10.1177/0093854891018003007>.
- Gini, G., & Pozzoli, T. (2013). Measuring self-serving cognitive distortions: A meta-analysis of the psychometric properties of the How I Think Questionnaire (HIT). *European Journal of Developmental Psychology*, 10(4), 510–517. <https://doi.org/10.1080/17405629.2012.707312>.
- Goffman, E. (1961). On the characteristics of total institutions. In E. Goffman (Ed.), *Asylums: Essays on the social situations of mental patients and other inmates* (pp. 1–124). New York: Doubleday Anchor.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10(3), 252–264.
- Heynen, E., Van der Helm, G. H. P., Cima, M., Stams, G. J. J. M., & Korebrits, A. (2016). The relation between living group climate, aggression and callous unemotional traits in delinquent boys in detention. *International Journal of Offender Therapy and Comparative Criminology*, 61(15), 1701–1718. <https://doi.org/10.1177/0306624X16630543>.
- Heynen, E. J. E., Van der Helm, G. H. P., Stams, G. J. J. M., & Korebrits, A. M. (2014). Measuring group climate in a German Youth Prison: A German validation of the Prison Group Climate Instrument. *Journal of Forensic Psychology Practice*, 14(1), 45–54. <https://doi.org/10.1080/15228932.2013.868176>.
- Höfte, S. J. C., Van der Helm, G. H. P., & Stams, G. J. J. M. (2012). Het internationaal recht en knelpunten in de gesloten jeugdzorg: Adviezen voor de praktijk. *Justitiële Verkenningen*, 38(6), 84–99.
- Hoogsteder, L. M., Wissink, I. B., Stams, G. J. J. M., Van Horn, J. E., & Hendriks, J. (2014). A validation study of the Brief Irrational Thoughts Inventory. *Journal of Rational - Emotive and Cognitive—Behavior Therapy*, 32(3), 216–232. <https://doi.org/10.1007/s10942-014-0190-7>.
- Jeugdzorg Nederland. (2017). *Factsheet JeugdzorgPlus plaatsingsgegevens 2017–1*. Retrieved March 6, 2018, from <https://www.jeugdzorgnederland.nl/wp-content/uploads/2017/11/JeugdzorgPlus-2017def.pdf>.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd edn.). New York: Guilford.
- Lammers, J., & Stapel, D. A. (2011). Power increases dehumanization. *Group Processes & Intergroup Relations*, 14(1), 113–126.
- Li, C. H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, 48, 936–949. <https://doi.org/10.3758/s13428-015-0619-7>.
- Liebling, A., Hulley, S., & Crewe, B. (2011). Conceptualising and measuring the quality of prison life. In D. Gadd, S. Karstedt & S. Messner (Eds.), *The sage handbook of criminological research methods*. London: Sage.
- Lipsey, M. W. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims & Offenders*, 4(2), 124–147. <https://doi.org/10.1080/15564880802612573>.
- Moos, R. H. (1975). *Evaluating correctional and community settings*. New York: Wiley.
- Nieuwenhuijzen, M. Van, & Vriens, A. (2012). (Social) Cognitive skills and social information processing in children with mild to borderline intellectual disabilities. *Research in Developmental Disabilities*, 33(2), 426–434. <https://doi.org/10.1016/j.ridd.2011.09.025>.
- Parhar, K. K., Wormith, J. S., Derkzen, D. M., & Beauregard, A. M. (2008). Offender coercion in treatment: A meta-analysis of effectiveness. *Criminal Justice and Behavior*, 35(9), 1109–1135. <https://doi.org/10.1177/0093854808320169>.
- Paterson, B., McIntosh, I., Wilkinson, D., Mccomish, S., & Smith, I. (2013). Corrupted cultures in mental health inpatient settings. Is restraint reduction the answer? *Journal of Psychiatric and Mental Health Nursing*. <https://doi.org/10.1111/j.1365-2850.2012.01918.x>.
- Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75(1), 123–133. <https://doi.org/10.1111/j.1467-8624.2004.00658.x>.
- Ros, N., Van der Helm, G. H. P., Wissink, I., Stams, G. J. J. M., & Schaftenaar, P. (2013). Institutional climate and aggression in a secure psychiatric setting. *Journal of Forensic Psychiatry & Psychology*, 24(6), 713–727. <https://doi.org/10.1080/14789949.2013.848460>.
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: Guilford Press.
- Seiffge-Krenke, I., & Gelhaar, T. (2008). Does successful attainment of developmental tasks lead to happiness and success in later developmental tasks? A test of Havighurst's (1948) theses. *Journal of Adolescence*, 31(1), 33–52. <https://doi.org/10.1016/j.adolescence.2007.04.002>.
- Stams, G. J. J. M., & Van der Helm, G. H. P. (2017). What works in residential programs for aggressive and violent youth? In P. Sturmey (Ed.), *The Wiley Handbook on Violence and Aggression*. Chichester: Wiley.



- Streiner, D. L. (2003). Starting at the beginning: An introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, 80(1), 99–103. <https://doi.org/10.1207/S15327752JPA8001>.
- Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics* (5th edn.). Boston: Allyn and Bacon.
- Ten Brummelaar, M. D. C., Gerrits, G. M., Post, W. J., Harder, A. T., Kalverboer, M. E., Pultrum, T. A., & Knorth, E. J. (2014). Perceptions of participation: The views of male young people on the care process in a juvenile justice facility. *International Journal of Child and Family Welfare*, 15(1/2), 53–75.
- Ten Brummelaar, M. D. C., Harder, A. T., Kalverboer, M. E., Post, W. J., & Knorth, E. J. (2017). Participation of youth in decision-making procedures during residential care: A narrative review. *Child and Family Social Work*, 23, 33–44. <https://doi.org/10.1111/cfs.12381>.
- Tonkin, M. (2015). A review of questionnaire measures for assessing the social climate in prisons and forensic psychiatric hospitals. *International Journal of Offender Therapy and Comparative Criminology*, 60(12), 1376–1405. <https://doi.org/10.1177/0306624X15578834>.
- United Nations Convention on the Rights of the Child, art. 37, November. (1989). <http://www.ohchr.org/en/professionalinterest/pages/crc.aspx>.
- Van de Heuvel, C. (2018, February 14). Jeugdpsychiaters slaan alarm over isoleren kinderen jeugdzorg [Youth psychiatrists warn against isolating children in youth care]. Retrieved February 15, 2018, from <https://eenvandaag.avrotros.nl/item/jeugdpsychiaters-slaan-alarm-over-isoleren-kinderen-jeugdzorg/>.
- Van den Tillaart, J., Eltink, E., Stams, G.-J., Van der Helm, P., & Wiskink, I. (2018). Aggressive incidents in residential youth care. *International Journal of Offender Therapy and Comparative Criminology*. <https://doi.org/10.1177/0306624X18758898>.
- Van der Helm, G. H. P. (2016). Doorontwikkeling leefklimaatvragenlijst: Van PGCI naar GCI (12+). Retrieved February 9, 2018, from <https://www.hsleiden.nl/binaries/content/assets/hsl/lectoraten/residentiele-jeugdzorg/doorontwikkeling-leefklimaatvragenlijst.pdf>.
- Van der Helm, G. H. P., Kuiper, C. H. Z., & Stams, G. J. J. M. (in press). Treatment motivation in secure juvenile facilities: A test for self-determination theory. *Child and Youth Services Review*.
- Van der Helm, G. H. P., Stams, G. J., J., M., & Van der Laan, P. H. (2011). Measuring group climate in a forensic setting. *The Prison Journal*, 19, 158–177.
- Van der Helm, G. H. P., & Vandevelde, S. (2018). Probleemgedrag is vaak te begrijpen. *Tijdschrift Voor Orthopedagogiek: Onderzoek En Praktijk*.
- Vansteenkiste, M., & Soenens, B. (2013). *Vitamines van groei: Over de motiverende rol van ouders in de opvoeding*. Gent: Academia Press.
- Whittaker, J. K., Holmes, L., Valle, D., Ainsworth, J. F., Andreassen, F., Anglin, T., J., et al (2016). Therapeutic residential care for children and youth: A consensus statement of the international work group on therapeutic residential care. *Residential Treatment for Children & Youth*, 33(2), 89–106.
- Wright, K. N. (1985). Developing the Prison Environment Inventory. *Journal of Research in Crime and Delinquency*, 22(3), 257–277.