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Review article

Clinical characteristics of individuals with intellectual disability who have experienced sexual abuse. An overview of the literature

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ABSTRACT

Background: Sexual abuse in individuals with average IQ or above is associated with a wide range of behavioural, psychological and body-related characteristics. It is unknown whether individuals with intellectual disability (ID) and a history of sexual abuse suffer from similar clinical characteristics.
Objective: The aim of the review is to provide an overview of the literature on the clinical characteristics of individuals with ID who have experienced sexual abuse.
Method: PubMed, Embase, PsycInfo, CINAHL, Cochrane Library and Web of Sciences were searched for relevant publications using terms related to concepts of "intellectual disability" and "sexual abuse". Two independent reviewers screened and selected articles for inclusion in the study, resulting in seven studies.
Results: The studies mostly reported behavioural and psychological characteristics such as aggression, self-injury, or posttraumatic stress, anxiety or depressive symptoms associated with sexual abuse in individuals with ID. None mentioned body-related characteristics.
Conclusions: Similar to individuals with average IQ or above, sexual abuse in individuals with ID is associated with a broad range of behavioural and psychological characteristics. Conduct disorders, self-injury, inappropriate sexualised talk and poor feelings of personal safety seem to be more indicative for the ID population. Anxiety, depression and PTSD are prevalent in individuals with and without ID who both have experienced sexual abuse. Whether individuals with ID experience body-related characteristics is unclear.

What this paper adds?

This paper adds knowledge about the clinical characteristics of individuals with intellectual disability (ID) who have experienced sexual abuse. Acknowledging both equivalences and differences in clinical characteristics, we found, as with individuals with average IQ or above, that sexual abuse in individuals with ID results in a wide range of behavioural and psychological characteristics. Individuals with ID who have experienced sexual abuse are more likely to develop conduct disorders, to injure themselves, to have inappropriate sexualised talk and to experience poor feelings of personal safety than individuals with average IQ or above who have

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experienced sexual abuse. However, it is as yet unclear whether individuals with ID who have experienced sexual abuse experience body-related characteristics similar or different to those described in individuals with average IQ or above. Examples of body-related characteristics in individuals with average IQ or above who have experienced sexual abuse are difficulties with processing inner body signals, negative body experience, feelings of hate towards the body, or reduced physical vitality or health. More research is needed to investigate body-related characteristics of individuals with ID who have experienced sexual abuse. Furthermore, due to the high prevalence rates of sexual abuse in individuals with ID, clinicians should be aware of the possibility that behavioural and psychological characteristics are associated to sexual abuse. Therefore, early recognition of sexual abuse and monitoring over time is important in order to decrease the risk of these problems and arrange early treatment.

1. Introduction

Sexual abuse is a global problem with prevalence rates in individuals with average IQ or above varying from 3% to 31% in children (Barth, Bermetz, Heim, Trelle, & Tonia, 2013; Stoltenborgh, van IJzendoorn, Euser, & Bakermans-Kranenburg, 2011) and 5% to 9% in adults (Abrahams et al., 2014). In the present review, sexual abuse is defined as unwanted sexual activity, with perpetrators using force, bribes or coercion, making threats or taking advantage of victims who are unable to give consent by virtue of age, immaturity or intellect (Graham, 1996).

In comparison with individuals with average IQ or above, individuals with intellectual disability (ID) are more likely to experience sexual abuse (Byrne, 2017). Prevalence rates of sexual abuse in individuals with ID range from 14% to 32% in children (Balogh et al., 2001; Briggs, 2006) and from 7% to 34% in adults (Lin, Yen, Kuo, Wu, & Lin, 2009). It is suggested that both the impairments that individuals with ID face and their context make them more vulnerable to sexual abuse. For example, lack of knowledge regarding sexuality, dependence on others, trained compliance, and social isolation (e.g. Akbaş et al., 2009; Briggs, 2006) may contribute to their increased risk of becoming the victim of sexual abuse. Given this enhanced risk, individuals with mild intellectual disability or borderline intellectual functioning (MID-BIF, IQ 50–85) are more likely to actually experience sexual abuse than individuals with a moderate or severe intellectual disability (IQ $<$ 50) (Balogh et al., 2001; Morano, 2001), because they are more visible in society and have more possibilities to participate in social activities, such as school, work and leisure time (Morano, 2001).

The clinical characteristics of individuals with average IQ or above who have experienced sexual abuse are well studied. Most of these studies have focused on the behavioural and psychological characteristics of individuals who have experienced sexual abuse. In a systematic meta-review, Maniglio (2009) presented depression, anxiety, posttraumatic stress, self-injury, persistent feelings of anger and dissociation as established behavioural and psychological characteristics of individuals who have experienced sexual abuse. While the majority of studies address the behavioural and psychological characteristics of individuals who have experienced sexual abuse, some recent studies focus on body-related clinical characteristics. For instance, Van der Kolk (2014) describes that traumatic events, such as sexual abuse, have a wide-ranging effect on the victim's relationship with his or her body. Victims experience difficulties with processing inner body signals, such as change in heartbeat, breath and feelings of hunger, pain, or temperature. They either deny having inner signals or are overwhelmed by these signals (Van der Kolk, 2006). In addition, Scheffers et al. (2017) found that traumatic events, such as sexual abuse, not only negatively influences this form of body awareness but also affects the way in which the body is experienced in terms of satisfaction with and attitude towards the body. More specifically, victims of sexual abuse frequently develop feelings of hate towards their body (Fallon & Ackard, 2002) and experience reduced physical vitality and health (Sack, Boroske-Leiner, & Lahmann, 2010).

Studies on the clinical characteristics of individuals with ID who have experienced sexual abuse are limited. In a review of the literature, Sequeira and Hollins (2003) suggest that individuals with ID experience a range of behavioural and psychopathological symptoms following sexual abuse, similar to those with average IQ or above. However, these results are inconclusive due to the evidence reviewed. More specifically, most studies were case studies, did not use control groups, and did not use standardised, reliable and valid diagnostic instruments (Sequeira & Hollins, 2003). Given the fact that the review of Sequeira and Hollings was published in 2003, we deemed it relevant to investigate if there has been renewed knowledge regarding the clinical characteristics of individuals with ID who have experienced sexual abuse and their similarity to those with average IQ or above. Moreover, recently, Mevissen and De Jongh (2010) found in their review study that limitations in intellectual functioning and adaptive functioning in the conceptual, social, and practical domains (American Psychiatric Association, 2013) make it more difficult to deal with traumatic events. This might also lead to other or different clinical characteristics for the group of people with ID that have experienced sexual abuse compared to individuals with average IQ or above.

Whether clinical characteristics of individuals with ID who have experienced sexual abuse, especially those with MID-BIF (IQ between 50 and 85), are similar to individuals with average IQ or above, needs to be further investigated. More knowledge on clinical characteristics of individuals with ID who have experienced sexual abuse might improve early recognition of sexual abuse. Such knowledge is also important in order to develop and implement adequate treatment programs that decrease behavioural and psychological problems, prevent re-victimisation and improve quality of life for this already vulnerable group. Therefore, the aim of this review is to provide an overview of the literature on the clinical characteristics of individuals with ID (e.g. MID-BIF) who have experienced sexual abuse.

Table 1
Search terms.

Intellectual disability AND	Sexual abuse
Intellectual disab*	Sexual trauma
Mental disab*	Sexually trauma
Mentally disab*	Traumatic sex
Intellectual retard*	Sexual abuse
Mental retard*	Sexually abuse
Mentally retard*	Rape
Intellectual deficien*	Raped
Mental deficien*	Sex offence
Learning disab*	Sexual offence
Mental handicap*	Sexual violen*
Mentally handicap*	Sexual violat*
Developmental disab*	Sexual molestat*
Borderline intellectual disabil*	Sexually molest*
Borderline intellectual function*	Sexual maltreatment*
Borderline mental retard*	Sexual assault
Intellectual development disorder*	Sexual assaults
Intellectual dysfunct*	Sexual assaulted
Mental dysfunct*	Sexually assaulted
Intellectual impair*	Sexual victim*
Mental impair*	Sexual harass*
Mentally impair*	Sexually harass*
	Sexual aggression
	Sexual coercion
	Sexual exploit*
	Sexually exploit*

2. Method

2.1. Search methods

In June 2018, the following databases were searched: PubMed, Embase, PsycINFO, CINAHL, Cochrane Library and Web of Science. The concepts in the search were related to "intellectual disability and "sexual abuse" (see Table 1 for search terms). The reference lists of the included studies were also examined and several experts in the field of sexual abuse and ID were asked to suggest other relevant publications.

2.2. Inclusion criteria

Studies were considered for inclusion if they were 1) empirical in nature (reviews and narrative and case studies were excluded; case-control studies were included); 2) published between 1998 and 2018; 3) published in English; 4) published in academic peer-reviewed journals; 5) focused on at least one individual with mild intellectual disability or borderline intellectual functioning (MID-BIF, IQ 50–85); and 6) focused on sexual abuse.

2.3. Screening and study selection

After removing duplicates, 1302 studies were screened by title and abstract. The selection of studies was made independently by two researchers (MJS and MS) and consensus had to be reached for every selected article. The screening by title and abstract resulted in 41 studies for full-text assessment. Next, the remaining studies were read in full and selected when inclusion criteria were met. This resulted in a selection of seven studies on the clinical characteristics of individuals with ID who have experienced sexual abuse. No extra studies were found by examining the reference lists of the included studies or from the suggestions of relevant experts in the field. Fig. 1 presents a flow diagram of the study selection.

After selection of the seven studies, the diagnostic instruments used in these studies were summarized. Based on the primary outcomes of the diagnostic instruments used, the clinical characteristics of individuals with ID who have experienced sexual abuse were divided into several categories.

3. Results

3.1. Study characteristics

Table 2 provides an overview of the characteristics of the included studies. The studies in question were conducted in the UK (n = 3), South-Africa (n = 1), US (n = 1), Turkey (n = 1) and Canada (n = 1). Four studies focused on adults with ID who have

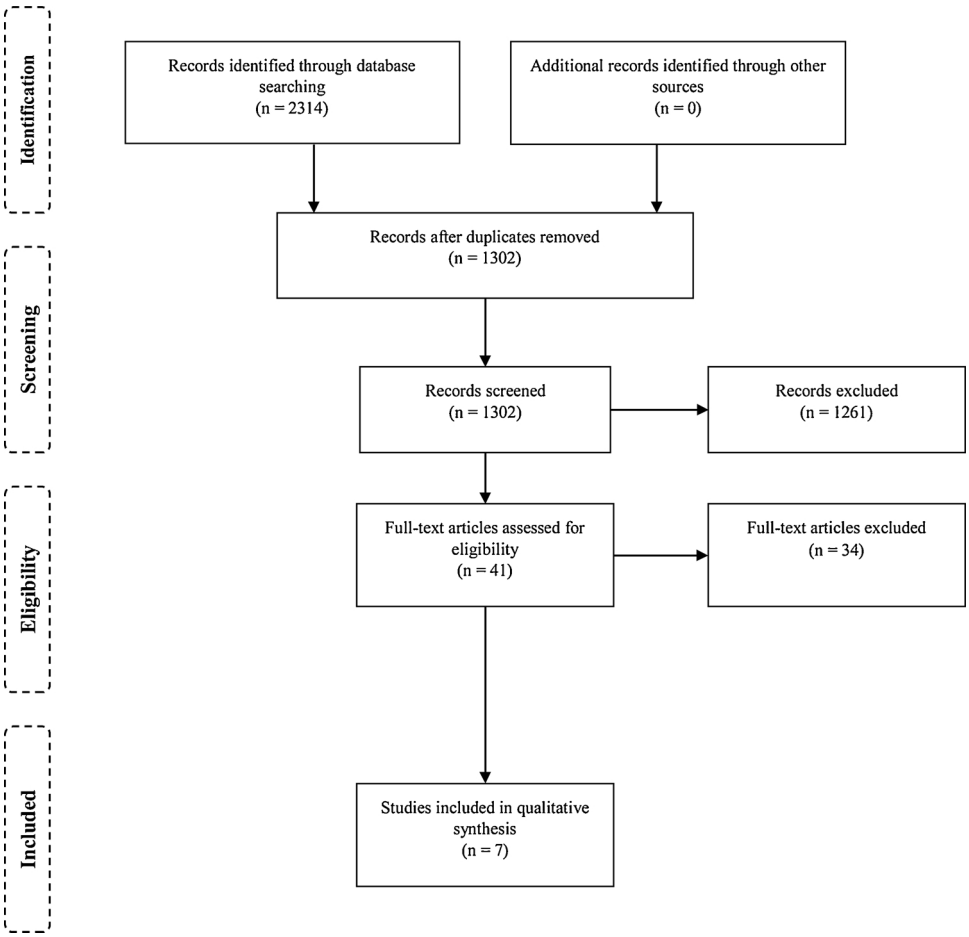

Fig. 1. Study selection.

experienced sexual abuse (Matich-Maroney, 2003; Peckham, Howlett, & Corbett, 2007; Sequeira, Howlin, & Hollins, 2003; Shabalala & Jasson, 2011) and three studies focused on children and adolescents with ID who have experienced sexual abuse (Firth et al., 2001; Mansell, Sobsey, & Moskal, 1998; Soylu, Alpaslan, Ayaz, Esenyel, & Oruç, 2013).

Three studies compared adults with ID who have and have not experienced sexual abuse (Matich-Maroney, 2003; Sequeira et al., 2003; Shabalala & Jasson, 2011) and one quasi-experimental study concerned an adults survivor group (Peckham et al., 2007). Two studies compared children and adolescents with and without ID who both have experienced sexual abuse (Mansell et al., 1998; Soylu et al., 2013) and one retrospective study concerned child and adolescent perpetrators of sexual abuse, survivors of sexual abuse and survivors who were also perpetrators of sexual abuse (Firth et al., 2001).

3.2. Characteristics of the diagnostic instruments

Table 3 presents the diagnostic instruments used to assess the clinical characteristics of individuals with ID who have experienced sexual abuse in the different studies. Two diagnostic instruments specifically focused on challenging behaviour and one specifically focused on sexualised behaviour. Several diagnostic instruments focused on a specific psychiatric diagnosis or on specific symptoms, such as posttraumatic stress disorder (PTSD) and depression. Three other instruments focused on various psychiatric disorders and symptoms. Furthermore, one diagnostic instrument measured self-esteem, one anger, and one focused on various clinical characteristics. No diagnostic instruments were found that focused specifically on body-related clinical characteristics. With regard to the type of instrumentation, six instruments were self-report instruments, four instruments were completed by informants, and three instruments used both types. Furthermore, seven instruments were developed for individuals with ID, and six instruments were developed for individuals with average IQ or above.

3.3. Clinical characteristics of individuals with ID who have experienced sexual abuse

After analysing the results of the studies reviewed, categories of the clinical characteristics of individuals with ID who have experienced sexual abuse were formed based on the primary outcomes of the diagnostic instruments used in the studies included.

Table 2
Characteristics of the studies.

Study	Country	Type	Sample	Age	Type ID	Tests and scales
1. Sequeira et al. (2003)	United Kingdom	Case-control study	Individuals with ID who have experienced sexual abuse (n = 54); Individuals with ID who have not experienced sexual abuse (n = 54)	16-44	Mild (n = 24); Moderate (14); Severe/profound (n = 16)	ABC-C, ABS-RC, PAS-ADD, PCL-C/PR
2. Shabalala and Jasson (2011)	South-Africa	Case-control study	Individuals with ID who have experienced sexual abuse (n = 27); Individuals with ID who have not experienced sexual abuse (n = 27)	11-35	Mild (n = 11); Moderate (n = 10); Unspecified (n = 6)	CPC
3. Matich-Maroney (2003)	United States	Case-control study	Individuals with ID who have experienced sexual abuse (n = 18); Individuals with ID who have not experienced sexual abuse (n = 25)	Adults	Borderline (n = 6); Mild (n = 26); Mild to moderate (n = 11)	PSAS, PIMRA
4. Peckham et al. (2007)	United Kingdom	Quasi-experimental study	Females with ID who have experienced sexual abuse (n = 7)	26-47	Mild (n = 7)	IES, CFSEI, NAS, BDI, CBI
5. Firth et al. (2001)	United Kingdom	Retrospective study	Children and adolescents with ID who have experienced sexual abuse (n = 21)	7-21	Borderline (n = 3); Mild (n = 11), Moderate (n = 7));	–
6. Mansell et al. (1998)	Canada	Retrospective study	Children with ID who have experienced sexual abuse (n = 43); Children without ID who have experienced sexual abuse (n = 43)	5-7	ID (n = 43)	SAIR
7. Soylu et al. (2013)	Turkey	Case-control study	Children and adolescents with ID who have experienced sexual abuse (n = 102); Children and adolescents without ID who have experienced sexual abuse (n = 154)	6-16	Mild (n = 89), Moderate (n = 12), Severe (n = 1)	–

ABC-C: Aberrant Behaviour Checklist-Community; ABC-RC: Aberrant Behaviour Scale; BDI: Beck Depression Inventory; CBI: Challenging Behaviour Interview; CFSEI: Culture-free Self Esteem Inventory; CPC: Child PTSD Checklist; ID: intellectual disability; IES: Impact of Event Scale; NAS: Novaco Anger Scale; PAS-ADD: Psychiatric Assessment Schedule for Adults with Developmental Disabilities; PCL-C/PR: PTSD Checklist for Children/Parent Report; PIMRA: Psychopathology Inventory for Mentally Retarded Adults; PIMRA: Psychopathology Inventory for Mentally Retarded Adults; PSAS: Prout-Strohmer Assessment System; SAIR: Sexual Abuse Information Record.

Table 3
Characteristics of the diagnostic instruments used in the included studies.

Name of test or scale	Primary outcome	Instrumentation	Target group
Aberrant Behaviour Checklist-Community (ABC-C; Aman, Richmond, Stewart, Bell, & Kissel, 1987)	Challenging behaviour	Informant questionnaire	ID
Adaptive Behaviour Scale – Residential and Community – sexual behaviour domain (ABS-RC; Nihira, Leland, & Lambert, 1993)	Sexual behaviour	Informant questionnaire	ID
Challenging Behaviour Interview (CBI; Oliver et al., 2002)	Challenging behaviour	Informant questionnaire	ID
PTSD Checklist for Children/Parent Report (PCL-C/PR; Ford et al., 1999)	PTSD	Informant questionnaire	Non-ID
Beck Depression Inventory (BDI; Beck & Steer, 1987)	Depression	Self-report	Non-ID
Child PTSD Checklist (CPC; Amaya-Jackson, McCarthy, Cherney, & Newman, 1995).	PTSD	Self-report	Non-ID
Culture-free Self Esteem Inventory (CFSEI; Battle, 1992)	Self -esteem	Self-report	Non-ID
Impact of Event Scale (IES; Horowitz, Wilner, & Alverez, 1979)	PTSD	Self-report	Non-ID
Novaco Anger Scale (NAS; Novaco, 1994)	Anger	Self-report	Non-ID
Prout-Strohmer Assessment System (PSAS; Strohmer & Prout, 1989)	Psychiatric symptoms	Informant questionnaire and self-report	ID
Psychiatric Assessment Schedule for Adults with Developmental Disabilities (PAS-ADD; Moss et al., 1997)	Psychiatric symptoms	Informant questionnaire and self-report	ID
Psychopathology Inventory for Mentally Retarded Adults (PIMRA; Matson, 1988)	Psychiatric symptoms	Informant questionnaire and self-report	ID
Sexual Abuse Information Record (SAIR; Moskal, 1993)	Overall symptoms	–	ID

Two categories were distinguished: behavioural characteristics and psychological characteristics.

3.4. Behavioural characteristics

The behavioural characteristics were divided into two subcategories, namely challenging behaviour and sexualised behaviour. Challenging behaviour is defined as culturally abnormal behaviour of such an intensity, frequency or duration that the physical safety of the person or others is likely to be placed in serious jeopardy, or seriously limit use of ordinary community facilities (Emerson, 1995). Sexualised behaviour is defined as abnormal behaviour of a sexual nature.

3.4.1. Challenging behaviour

Challenging behaviour was found to be associated with sexual abuse in individuals with ID in four of the seven studies (Mansell et al., 1998; Peckham et al., 2007; Sequeira et al., 2003; Soylu et al., 2013). Peckham et al. (2007) investigated challenging behaviour of female adults with ID who have experienced sexual abuse participating in a survivor group. Before the start of the survivor group, the participants scored high on the following subscales: self-harm, verbal aggression, physical aggression and destruction of property.

One study compared challenging behaviour of adults with ID who have and have not experienced sexual abuse (Sequeira et al., 2003). On the subscale irritability/agitation/crying, the group of people that have experienced sexual abuse showed significantly more aggression to others, self-injury, temper outbursts, and changes of mood than the non-abused group. Furthermore, more repetitive rocking and bizarre behaviours were found in the group of people that have experienced sexual abuse, which are elements of stereotypical behaviour. Adults with ID who have experienced sexual abuse were also more likely to seek isolation from others, to be preoccupied, to resist any form of physical contact and to be listless, sluggish or inactive, according to the subscale lethargy/social withdrawal. With regard to the subscale hyperactivity/non-compliance, the group of people that have experienced sexual abuse showed more excessive activity, disobedience and distractibility, and were more likely to disturb others and act impulsively.

The above studies focus on a comparison between adults with ID who have and have not experienced sexual abuse, which raises the question whether the clinical characteristics found in the studies are specific for individuals with ID or similar to those without ID. In line with this question, two studies compared children and adolescents with ID and without ID who both have experienced sexual abuse (Mansell et al., 1998; Soylu et al., 2013). Mansell et al. (1998) found that children with ID who have experienced sexual abuse showed more self-injury (hairpulling, head banging) than those without ID. Soylu et al. (2013) compared the occurrence of conduct disorders in children and adolescents with and without ID who both have experienced sexual abuse. They found that children and adolescents with ID who have experienced sexual abuse were significantly more likely to develop a conduct disorder than their peers without ID who have experienced sexual abuse.

3.4.2. Sexualised behaviour

Three studies showed sexualised behaviour to be a possible result of sexual abuse in individuals with ID (Mansell et al., 1998; Matich-Maroney, 2003; Sequeira et al., 2003). Matich-Maroney (2003) found that adults with ID who have experienced sexual abuse showed more sexualised behaviour, such as talking inappropriately about sex, being preoccupied with sexual issues, wearing provocative clothing, engaging in inappropriate sexual contacts or behaviour, exposing unusual or atypical sexual interests or, on the contrary, avoiding sexual activities than adults with ID who have not experienced sexual abuse. Consistently, Sequeira et al. (2003) found that adults with ID who have experienced sexual abuse showed more sexualised behaviour than adults with ID who have not experienced sexual abuse. Again, the question arises whether the clinical characteristics mentioned above are specific to individuals

with ID or similar to those without ID. Evaluating children with and without ID who both have experienced sexual abuse, Mansell et al. (1998) confirmed a higher occurrence of sexualised behaviour, such as inappropriate sexual talk, in children with ID.

3.5. Psychological characteristics

The psychological characteristics were subdivided into three psychopathological symptoms, namely, posttraumatic stress, depression, and anxiety. Several psychological characteristics did not correspond to aforementioned psychopathological symptoms and were described in the category 'other psychological characteristics'.

3.5.1. Posttraumatic stress symptoms

Six of the seven studies found that posttraumatic stress symptoms might be associated with sexual abuse in individuals with ID (Firth et al., 2013; Mansell et al., 1998; Peckham et al., 2007; Sequeira et al., 2003; Shabalala & Jasson, 2011; Soylu et al., 2013). A survivor group study investigated two clusters of PTSD symptoms following the DSM-IV, re-experiencing and avoidance, in female adults with ID (Peckham et al., 2007). The participants met criteria for re-experiencing and avoidance before the start of the survivor group.

In the two studies comparing adults with ID who have and have not experienced sexual abuse (Sequeira et al., 2003; Shabalala & Jasson, 2011) similar conclusions were drawn. Sequeira et al. (2003) found that significantly more adults with ID who have experienced sexual abuse met the criteria for a posttraumatic stress disorder (PTSD) than adults with ID who have not experienced sexual abuse. The criteria for PTSD following the DSM-IV include the following three clusters: re-experiencing, avoidance and hyperarousal. These findings are in line with Shabalala and Jasson (2011), who studied a group of individuals with PTSD and found that the group that has experienced sexual abuse showed higher rates of a PTSD diagnosis and a higher intensity of PTSD symptoms, following the DSM-IV, than the ID-group that has experienced other traumatic events such as extreme illness or death of a close other. More specifically, the intensity of re-experiencing, avoidance and hyperarousal, was significantly higher in the group of people that have experienced sexual abuse than in the group of people that have experienced other traumatic events.

In two studies that compared children and adolescents with and without ID who both have experienced sexual abuse ambiguous results were found concerning trauma-related symptoms. Mansell et al. (1998) found that specifically the children with ID showed more avoidance symptoms, namely extreme withdrawal and withdrawal into fantasy, than the children without ID. Soylu et al. (2013), however, found no significant differences between the groups with respect to the severity of the trauma-related symptoms and found equal prevalence's of PTSD.

In their retrospective study on children and adolescents with ID who have experienced sexual abuse, Firth et al. (2013) focused on the three clusters of PTSD symptoms in DSM-IV. Amongst 21 victims, no victims reported symptoms in all three clusters and two reported only symptoms of re-experiencing. Symptoms of avoidance and hyperarousal were not found in this study.

3.5.2. Depressive symptoms

In the survivor group study of female adults with ID who have experienced sexual abuse (Peckham et al., 2007), participants showed symptoms of depression as a possible consequence of the abuse. In the two studies that compared adults with ID who have and have not experienced sexual abuse, this result was confirmed. Matich-Maroney (2003) found that adults with ID who have experienced sexual abuse showed more depressive symptoms, such as decreased energy levels, feelings of sadness, frequent crying, social withdrawal and/or isolation and sleep disturbances, than adults with ID who have not experienced sexual abuse. In addition, Sequeira et al. (2003) found that adults with ID who have experienced sexual abuse fulfilled significantly more criteria for a psychiatric diagnosis of depression following the International Classification of Diseases (ICD-10; World Health Organization, 2010) than adults with ID who have not experienced sexual abuse. No studies analysed differences in depressive symptoms between individuals with and without ID who both have experienced sexual abuse.

3.5.3. Anxiety symptoms

Two studies comparing adults with ID who have and have not experienced sexual abuse indicated that sexual abuse in adults with ID leads to anxiety symptoms. Matich-Maroney (2003) found that adults with ID who have experienced sexual abuse showed more anxiety symptoms, such as inability to relax, excessive worry, proclivity towards self-consciousness and/or extreme shyness, difficulties in concentration and decreased frustration tolerance, than adults with ID who have not experienced sexual abuse. Furthermore, Sequeira et al. (2003) found that adults with ID who have experienced sexual abuse fulfilled significantly more criteria for a psychiatric diagnosis of anxiety disorder following the ICF-10 (ICD-10; World Health Organization, 2010) than adults with ID who have not experienced sexual abuse. No studies were found investigating differences in anxiety symptoms between individuals with and without ID who both have experienced sexual abuse.

3.5.4. Other psychological characteristics

Some of the psychological characteristics found in the studies reviewed, did not correspond with the categories mentioned above. Mansell et al. (1998) found that children with ID who have experienced sexual abuse showed a poorer sense of personal safety compared to those without ID. In their survivor group study of female adults with ID, Peckham et al. (2007) found low self-esteem and persistent feelings of anger in the participants before the start of the survivor group.

4. Discussion

The aim of the present review was to provide an overview of the clinical characteristics of individuals with ID who have experienced sexual abuse and to compare these characteristics to individuals with average IQ or above who have experienced sexual abuse. The seven studies included demonstrated that sexual abuse in individuals with ID is associated with a broad range of clinical characteristics, namely, behavioural, mainly challenging behaviour and sexualised behaviour, and psychological, that is psychopathological symptoms of PTSD, depression and anxiety, and poorer sense of personal safety, low self-esteem and persistent feelings of anger.

Since the review of Sequeira and Hollins (2003), there has been renewed knowledge regarding the clinical characteristics of individuals with ID who have experienced sexual abuse. With respect to the question whether individuals with ID with a history of sexual abuse suffer from behavioural and psychological characteristics similar or different to individuals with average IQ or above, some interesting findings came to the fore. First, especially children and adolescents with ID were more likely to develop a conduct disorder than those without ID. Second, children and adolescents with ID were more likely to injure themselves than those without ID. The higher rate of self-injury may be due to limitations in adaptive functioning, such as insufficient self-care skills, poor general communication, lack of expressive language and lack of social interaction skills (McClinktock, Hall, & Oliver, 2003). Third, with regard to sexualised behaviour, children with ID were more likely to have inappropriate sexualised talk than those without ID. Despite the fact that literature is sparse on this subject, we cannot rule out the possibility that due to their poor control of impulses, individuals with ID are more likely to show challenging and sexualised behaviour (Firth et al., 2001).

With regard to the symptoms of PTSD, findings were inconclusive. It is as yet unclear if individuals with ID who have experienced sexual abuse are more likely to meet specific criteria of PTSD than individuals without ID who have experienced sexual abuse.

Depressive and anxiety symptoms were only reported in the studies on adults. These studies show that adults with ID who have experienced sexual abuse are more likely to experience depressive and anxiety symptoms than adults with ID who have not experienced sexual abuse. However, it is unknown if individuals with ID experience these symptoms following sexual abuse while the onset of the sexual abuse is unclear. They might already show more anxiety and depressive symptoms than adults with ID who have not experienced sexual abuse in childhood (Emerson, 2003). Whether individuals with ID who have experienced sexual abuse are more or less likely to experience depressive and anxiety symptoms than individuals without ID who have experienced sexual abuse is as yet unclear.

As was acknowledged in the introduction, sexual abuse in individuals with average IQ or above is not only associated with behavioural and psychological characteristics, but also with body-related characteristics. Remarkably, no body-related characteristics were reported in the included studies on individuals with ID who have experienced sexual abuse. Thus, it is as yet unclear whether individuals with ID experience body-related characteristics similar to those described in individuals with average IQ or above.

In the months after our literature search, additional, more recent studies on sexual abuse in individuals with ID have been published. While most of these studies did not focus on the clinical characteristics of sexual abuse in individuals with ID, one study (Gil-Llario, Morell-Mengual, Diaz-Rodriguez, & Ballester-Arnal, 2018) presented new findings about the behavioural, psychological and social impact of sexual abuse in this group. Their results are mostly in line with the results of our literature study. They also found that individuals with ID with documented sexual abuse are more likely to present social isolation and self-harm. Finally, they found that individuals with ID with self-reported sexual abuse experience poorer quality of life than individuals with ID who have not experienced sexual abuse (Gil-Llario et al., 2018). However, the study by Gil-Llario et al. (2018) offers no more than the current review regarding the body-related characteristics.

4.1. Strengths and limitations of the present study

One of the strengths of the present study is that it specifically investigated the clinical characteristics of individuals with ID who have experienced sexual abuse, both in studies comparing victims with and without ID who have experienced sexual abuse, and victims with ID who have and have not experienced sexual abuse. Another strength lies in the fact that multiple databases were searched systematically by two independent researchers and that clear inclusion criteria were used.

The limitations of the current study are threefold. First, the possibility of publication bias exist. As in all articles based on published research, significant positive findings were more reported than negative, nonsignificant or inconclusive findings (Sutton, 2009). Especially with the absence of results on body-related clinical characteristics, on the one hand, it is possible that research on this topic has been conducted, but was not published due to ambiguous findings, or on the other hand, that no researchers investigated the body-related clinical characteristics. Second, the studies included were generally methodological limited; none of the studies were longitudinal and few studies used matched comparison groups. Furthermore, a small number of studies were included. Due to this number, non-western studies (Shabalala & Jasson, 2011; Soylu et al., 2013) were also included. Therefore, it is important to note that the results of the studies included may differ due to cultural differences. Third, the measurement of the clinical characteristics of individuals with ID who have experienced sexual abuse are achieved through a variety of diagnostic instruments. In addition, several diagnostic instruments used in the included studies were not adapted or developed for individuals with ID. Therefore, possible differences may be overlooked or overrated.

4.2. Implications for research

Given the limitations in the design of the reviewed studies, future research on the clinical characteristics of individuals with ID

who have experienced sexual abuse should preferably be longitudinal, use matched comparison groups, and use diagnostic instruments specifically developed and validated to be used also for individuals with ID.

In future research, it is also recommended to provide information about the presence of sexual abuse by professionals and based on documentary resources because this information seems more likely to be reliable than information about the presence of sexual abuse provided by the victim's self-report (Gil-Llario et al., 2018). More specifically, Gil-Llario et al. (2018) found in their study that professionals, in most cases, did not have any documentary evidence of sexual abuse, while the participants had reported to be victim of sexual abuse. Therefore, it is possible that the self-reported group may not have experienced sexual abuse; this would coincide with the absence of psychological problems (Gil-Llario et al., 2018). In contrast, most participants with documentary evidence of sexual abuse did not report to be victim of sexual abuse (Gil-Llario et al., 2018), because they are not aware that they suffered sexual abuse or fear the consequences (Díaz, Gil, Ballester, Morell, & Molero, 2014; Liou, 2014; McGuire & Bayley, 2011). Nevertheless, both in documented and self-reported sexual abuse, structural bias has to be taken into account.

Account must also be taken of the possibility that sexual abuse is not the only risk factor related to the clinical characteristics mentioned in the present review. Concurrent third variables may be responsible for the results in the studies included. More specifically, other adverse life events than sexual abuse as well as environmental stressors may also contribute to behaviour difficulties and mental health problems reported (Emerson & Brigham, 2014; Wigham & Emerson, 2015). Therefore, future research is needed to investigate the role of third variables (e.g. other life events, environmental stressors).

Since no study specially reported on the body-related clinical characteristics, future research is also required to explore whether individuals with ID experience body-related clinical characteristics following sexual abuse, similar to those experienced by individuals with average IQ or above. Since, Scheffers et al. (2017) found that several domains of body experience, such as body attitude, body satisfaction and body-awareness, are often negatively associated with traumatic events, further research should be carried out to explore if and how sexual abuse is associated with these domains in individuals with ID. In addition, whether individuals with ID who have experienced sexual abuse develop feelings of hate towards their body (Fallon & Ackard, 2002) and experience reduced physical vitality and feelings of health (Sack et al., 2010) deserve also to be studied.

Finally, future research is needed to study whether specific characteristic of individuals with ID who have experienced sexual abuse, such as a younger age of abuse onset, familial relationship with the perpetrator, longer duration of abuse and higher frequency of abuse, are related to higher degree of mental health problems and behavioural difficulties, as found in studies focused on individuals with average IQ or above (Maniglio, 2009; Sequeira, 2006).

4.3. Implications for clinical practice

Sexual abuse is highly prevalent in individuals with ID and, therefore, it is important that clinicians consider the possibility of a history of sexual abuse in this group. Considering the possibility of sexual abuse should be a part of the standard assessment and admission procedures. Early recognition of sexual abuse and monitoring over time is important in order to decrease the risk of behavioural and psychological problems (Maniglio, 2009). More specifically, clinicians should be aware of the possibility that behavioural and psychological problems, such as aggression, self-injury, sexualised talk, posttraumatic stress, depression, anxiety, poorer sense of personal safety, low self-esteem and persistent feelings of anger may be associated to sexual abuse. If so, adequate, appropriate and effective treatment of sexual abuse in individuals with ID can be arranged.

While early recognition and assessment of clinical characteristics of individuals with ID who have experienced sexual abuse is important, few standardised diagnostic instruments that specifically assess the clinical characteristics of individuals with ID who have experienced sexual abuse in this group have been developed. Several existing instruments use informant questionnaires to complete by parents or keyworkers. These questionnaires give less adequate information because informants cannot be totally aware of the internal subjective experience of an individual (Charlot & Mikkelsen, 2005). Other studies have used self-report questionnaires, but due to the limited language skills or the inability to describe internal feelings, these questionnaires may give incomplete information as well (Charlot & Mikkelsen, 2005). As only use of self-report and informant questionnaires may not suffice, a combination of these types of questionnaires may be a more reliable way to investigate the clinical characteristics of individuals with ID who have experienced sexual abuse (Charlot & Mikkelsen, 2005). Assessment as used by body- and movement-oriented therapists, who often work with individuals with ID because their interventions match the needs and learning style of individuals with ID, may also form a useful contribution to a reliable assessment procedure of sexual abuse in individuals with ID (Kay, Clegg, Emck, & Standen, 2015; Morfouace, 2010). This type of assessment places emphasis on body signals, body experience, and regulating and expressing feelings, which might, as in individuals with average IQ or above, be related to sexual abuse in individuals with ID (Van der Kolk, 2014).

4.4. Conclusion

The purpose of the present review was to provide an overview of the literature on the clinical characteristics of individuals with ID who have experienced sexual abuse. We also examined whether individuals with ID who have experienced sexual abuse experience clinical characteristics similar to those with average IQ or above. The current review shows, as with individuals with average IQ or above, that sexual abuse in individuals with ID has a broad range of psychological and behavioural characteristics. Conduct disorders, self-injury, inappropriate sexual talk and poor feelings of personal safety seem to be more indicative for the ID population. Anxiety, depression and PTSD are prevalent in individuals with and without ID who both have experienced sexual abuse. Whether individuals with ID experience body-related characteristics, as with individuals with average IQ or above, is unclear. More research is needed to investigate the body-related characteristics of individuals with ID who have experienced sexual abuse.

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Declaration of Competing Interest

None.

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