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Rosanna C Gilderthorp

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Rosanna C Gilderthorp
Canterbury Christ Church University, UK

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Abstract

This study aimed to critically review all studies that have set out to evaluate the use of eye movement desensitization and reprocessing (EMDR) for people diagnosed with both intellectual disability (ID) and post-traumatic stress disorder (PTSD). Searches of the online databases Psych Info, The Cochrane Database of Systematic Reviews, The Cochrane Database of Randomized Control Trials, CINAHL, ASSIA and Medline were conducted. Five studies are described and evaluated. Key positive points include the high clinical salience of the studies and their high external validity. Several common methodological criticisms are highlighted, however, including difficulty in the definition of the terms ID and PTSD, lack of control in design and a lack of consideration of ethical implications. Overall, the articles reviewed indicate cause for cautious optimism about the utility of EMDR with this population. The clinical and research implications of this review are discussed.

Keywords

intellectual disability, post-traumatic stress disorder, eye movement desensitization and reprocessing, trauma therapy

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Corresponding author:
Rosanna C Gilderthorp, Salomons Centre for Applied Psychology, Canterbury Christ Church University, Runcie Court, Broomhill Road, Tunbridge Wells, Kent TN3 0TF, UK.
Email: r.c.trigg180@canterbury.ac.uk

Introduction

Definitions

The Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) defines intellectual disability (ID) based on three criteria. Firstly, the individual must have ‘deficits in intellectual functions’. This is defined as a score of 2 *SD*s below the mean on an individually administered intelligence quotient test. Secondly, they must have ‘deficits in adaptive functioning that result in failure to meet developmental and socio-cultural standards for personal independence and social responsibility’. Finally, the onset of difficulties must have occurred during the ‘developmental period’ (American Psychiatric Association, 2013: 33). The DSM-5 suggests that the overarching classification of ID can be usefully broken down into classifications of mild, moderate, severe and profound based on the performance of the individual across the three criteria.

According to the DSM-5, ‘the essential feature of post-traumatic stress disorder’ (PTSD) is the ‘development of characteristic symptoms following exposure to one or more traumatic events’ (American Psychiatric Association, 2013: 274). In order to be diagnosed with PTSD, individuals must meet eight criteria. Typical symptoms include, but are not limited to, intrusive memories, distressing dreams, dissociative ‘flashbacks’, heightened physiological stress reactions to trauma-related ‘triggers’, avoidance of trauma-related stimuli, memory deficits and changes in mood (American Psychiatric Association, 2013: 271). It is acknowledged that the symptoms of PTSD may be different in children. In particular, it suggests that children may present with behavioural difficulties and nightmares. It is difficult to diagnose PTSD in people diagnosed with ID (Mevissen and de Jongh, 2010). This complex issue is discussed in this review article.

EMDR as a mainstream treatment for PTSD

Eye movement desensitization and reprocessing (EMDR) is an eight-phase protocolized treatment predicated on the assumption that distress following traumatic events is caused by unprocessed information. It was developed by Francine Shapiro in 1987 and since then a strong body of literature has demonstrated its efficacy in the treatment for PTSD in both adults and children (Adler-Tapia and Settle, 2009; Bisson et al., 2007; Fleming, 2012; Ho and Lee, 2012; Ponniah and Hollon, 2009; Rodenburg et al., 2009a). Consequently, it is one of the only two psychological therapies, the other being trauma-focused cognitive–behavioural therapy, which is recommended as a first-line treatment for PTSD by the National Institute for Health and Care Excellence (NICE, 2005).

The theoretical underpinnings of EMDR are integrative, utilizing cognitive, psychodynamic and behavioural principles. Following an assessment phase, the treatment involves the therapist administering bilateral stimulation (BLS) either in visual form, the rapid movement of the fingers back and forth across the clients’ field of vision, or in auditory or physical formats, whilst the client is asked to focus on images that provoke negative emotional reactions. This ‘desensitization’ procedure is repeated until the distress associated with that image is ‘eliminated’ and the physical symptoms of distress are reduced (Shapiro, 2001: 73). This is followed by an ‘installation’ phase where positive cognitions are introduced via a similar combination of imagery and BLS (Shapiro, 2001: 75).

PTSD in people with ID

In a review of the literature, Mevissen and de Jongh (2010) explain that no robust evidence regarding prevalence of PTSD in the ID population exists, with the few studies that have been conducted reporting rates of between 2.5% and 60%. Despite the scarcity of literature, they direct the reader to recent research suggesting people with an ID may be at a greater risk of developing PTSD (Tomasulo and Razza, 2007). Historically, however, clients with ID have been subject to *diagnostic overshadowing*, and behaviours that may be signs of distress caused by trauma, such as self-injury, have been viewed as challenging behaviour (Fletcher et al., 2007). This has led clinicians to rely on behavioural techniques and has resulted in a lack of research into the use of trauma-focused therapies.

Aim

The use of EMDR to treat PTSD in people with a diagnosis of ID is under-researched. The aim of this review was to provide a critical review of all articles where a primary aim of the study was to assess the efficacy or effectiveness of EMDR for treating PTSD symptoms with a sample of participants who were also diagnosed with ID. Studies of all designs were considered relevant.

Methods

In order to ensure all relevant studies were reviewed, searches of the online databases Psych Info, The Cochrane Database of Systematic Reviews, The Cochrane Database of Randomized Control Trials, CINAHL, ASSIA and Medline were conducted. Date parameters were set to include all articles published between 1987 and the present day, as EMDR was first conceptualized in 1987 (Shapiro, 2001). The following search terms were used:

(Trauma *or* post traumatic stress disorder *or* posttraumatic stress disorder *or* PTSD *or* distress *or* sexual abuse *or* interpersonal trauma *or* violence *or* emotional trauma) *and* (Intellectual disab* *or* learning disab* *or* mental handicap* *or* mental retard**or* intellectual development disorder) *and* (Treatment *or* therapy *or* psychotherapy *or* group psychotherapy *or* eye movement desensitization therapy *or* eye movement desensitisation therapy) *and* (Efficacy *or* effectiveness *or* outcomes *or* results *or* effect*).

The titles and abstracts of all articles were then read, and articles that included people with a diagnosis of ID within their sample of people with a diagnosis of ID where EMDR had been administered as a treatment for PTSD symptoms were selected. Once relevant articles were found, the keywords associated with them were noted, any that were not included in the original search terms were added and the search was repeated. In addition, the references of all relevant articles, including related conceptual articles not selected for review, were searched for salient studies. Two articles were found in this way, but unfortunately they are not available in English translation (Giltaij, 2004 as cited in Mevissen and de Jongh, 2010; Tharner, 2006 as cited in Mevissen and de Jongh, 2010). This meant they could not be included in the review. The search produced five relevant articles. All are of case study designs.

Structure

Three articles with the majority of cases having the diagnoses of mild ID were found. Two articles presented cases with moderate or severe ID. The review will therefore be arranged around this distinction between mild and moderate or severe ID. First, the studies focusing on the use of EMDR for people with a diagnosis of mild ID will be reviewed. This will be followed by a review of the studies reporting the use of EMDR for people with a diagnosis of moderate/severe ID. The articles will then be critiqued against Yin's (2009) quality criteria, and common methodological criticisms will be highlighted. The review will conclude with a discussion of clinical and research implications.

Literature review

EMDR with a sample of people with mild ID

Rodenburg et al. (2009b) report the case of an 18-year-old man (Tom) with co-morbid epilepsy and mild ID who endured severe physical abuse throughout his childhood. The Impact of Events Scale (IES), a self-report measure, was used to determine the presence of trauma symptoms. Tom was found to be suffering from 'severe' trauma characterized by 'flash backs' and 'sleep disturbance' (p. 177). The IES was re-administered 1 week after the completion of the five-session treatment, and Tom's score was found to have reduced to less than the clinical threshold for the presence of trauma symptoms, a statistically significant result. The therapist also conducted a qualitative evaluation with Tom 2 weeks post-treatment, which indicated symptom reduction.

Barol and Seubert (2010) conducted a series of case studies of six individuals. Participants ranged in age from 20 to 40. Teresa, a woman diagnosed with mild ID, autistic spectrum disorder (ASD) and anxiety disorder, received treatment with the aim of reducing her strong reactions to being criticized by others. Present-day problems as well as events from her adolescence and childhood were processed. James, a man diagnosed with mild ID, Tourette's syndrome and bipolar disorder, received EMDR treatment with the aim of reducing symptoms including flashbacks, nightmares, anger, avoidant behaviour, startle responses, 'sexual obsession' and self-injury (p. 165). Treatment focused on the reprocessing of his memory of being sexually abused. Anthony, a man diagnosed with moderate/mild ID, cerebral palsy and bipolar disorder, was treated for symptoms including property destruction, 'yelling and crying' and 'periods of depression' (p. 164). Anthony had a long history of abuse and neglect and several traumatic memories were reprocessed. Mark, a man diagnosed with mild ID, ASD and bipolar disorder, was treated for symptoms including screaming at peers, which led him to avoid social situations. His primary trauma was considered to be his father murdering his brother. However, Mark did not wish to work on this event, so EMDR focused instead on 'lesser events' including fear of medication side effects (p. 163). Tom, a man diagnosed with moderate ID and ASD, and Kate, a woman diagnosed with severe ID, ASD and bipolar disorder, were not treated using the full EMDR protocol but received BLS 'as needed' to help reduce aggressive behaviours. The authors report that they were unable to access the EMDR protocol due to the difficulties with verbal communication (p. 165).

Barol and Seubert (2010) report mixed outcomes. Teresa's distress appeared to reduce during the sessions, but caregiver reports suggested limited generalization to 'daily events' (p. 165). The authors also mention that Teresa followed an 'unusual' trajectory through treatment as she continued to feel distressed at the beginning of the sessions when they introduced material, which had been 'cleared' in the previous session (p. 160). James, however, had a more positive outcome as both he and his parents reported that his 'pretreatment symptoms' were absent at the end of treatment and at 6-month follow-up (p. 165). Both Anthony and Mark were reported to be 'able to desensitize several memories to completion' with symptoms of anxiety and depression reported to be 'largely diminished' at the end of treatment (p. 165). Tom and Kate were both reported to receive short-term benefit from caregivers using BLS with them in difficult situations but no reduction in trauma symptoms was achieved. These results therefore tentatively suggest that EMDR may be more effective for people with mild ID than for those with moderate to severe ID.

Mevissen et al. (2011a) report a series of four case studies of individuals diagnosed with mild ID and PTSD. John, a 32-year-old man, was referred following a scooter accident with the aim of reducing his symptoms of fear of accident-related stimuli, low mood, difficulty accepting criticism and avoidance of activities. Mitchell, an 11-year-old boy diagnosed with ASD was referred to reduce fears, obsessions, compulsive behaviours, hearing voices, avoiding sleep and outbursts of aggression thought to be the consequence of several 'overwhelming life events' such as family arguments and a car fire (p. 49). Mary, a 53-year-old woman diagnosed with mild/moderate ID, was referred for panic attacks, persistent anger, nightmares, obsessive thoughts, hearing voices, avoidance and physical symptoms of distress thought to be the result of a violent incident she witnessed. Eve, a 7-year-old girl diagnosed with mild to borderline ID, 'multiple complex developmental disorder' and obsessive–compulsive disorder, was referred with the aim of reducing her 'disturbing thoughts', fears, compulsive behaviours, outbursts of anger and frequent changes in mood (p. 52). In all cases, the first author, an EMDR practitioner with 30 years of experience, was the therapist.

The authors report unmitigated success in all four cases. In each case, the client was reported to have been experiencing significant distress, and in all cases, this distress was eliminated (Mevissen et al., 2011a: 53). Strikingly, the authors claim that EMDR not only eliminated the symptoms of PTSD but also produced benefits in terms of increased social functioning. For example, Mitchell is judged to show no signs of ASD at the end of therapy.

In summary, case studies of the use of EMDR for people diagnosed with mild ID and PTSD appear to suggest that it can be a useful treatment. The Barol and Seubert's (2010) article, however, does suggest that use of the EMDR protocol may be problematic when verbal communication is impaired, either due to the level of ID or due to other difficulties such as ASD. This is not supported by Mevissen et al.'s (2011a) findings. Further investigation regarding factors that may make EMDR less effective is required.

EMDR with a sample of people with moderate or severe ID

Mevissen et al. (2011b) produced two case studies of participants diagnosed with a moderate ID and PTSD. The cases reported were of Simon, a 'middle-aged man', and Maria, a 'young woman' with an additional diagnosis of ASD (p. 277). Maria had experienced sexual abuse in her residential placement and had subsequently been moved to a crisis unit. Her symptoms included feeling 'restless', being 'possessive' of her mother, 'sleep problems, aggressive outbursts', becoming 'tearful', poor personal hygiene and 'obsessive behaviour' (p. 277). Simon had a long history of loss, beginning with the death of his father when he was a teenager, the recent death of his mother and the enforced break up of a long-term relationship. His symptoms included 'aggressive outbursts', 'complaining, shaking', being 'possessive of caregivers and his girlfriend' and overeating (p. 277). In Simon's case, overwhelming life events other than the primary trauma were discovered in therapy and also reprocessed. In both cases, the authors report success across a broad range of outcomes, including reductions in aggressive and possessive behaviours, improved mood and increased communication ability at a 32-month follow-up for Maria and a 10-month follow-up for Simon.

Mevissen et al. (2012) built on the case studies reported by Mevissen et al. (2011a) by replicating their four case study design with a sample of people with sever ID. The first case presented is Jane, a 46-year-old woman with Down syndrome who had experienced having her head trapped in the bars of her bed and significant losses throughout her life. Her symptoms included screaming at midnight every night, problems with her ‘adaptive skills’, ‘physical problems’ and isolation (p. 226).The second case is Melissa, a 10-year-old girl, with Marshal–Smith syndrome who had experienced life-threatening medical problems since birth. Her symptoms included panic attacks, anxiety, avoidance of places and people, poor ability to focus ‘volatile’ behaviour and physical tension (p. 226). The third case is Peter, a 10-year-old boy, with Down syndrome who had experienced eating difficulties and ‘aggressive behaviour’ since his heart surgery at the age of 3 months (p. 227). The final case presented is Joany, a 32-year-old woman, with some symptoms of ASD who was persistently sexually abused in her 20s. Joany’s symptoms included fear of darkness, attacking other people, destruction of photographs linked to her trauma, refusal to return to her group home, ‘sexually unusual behaviour’, sleep problems, fear of being touched, aggressive outbursts, anxiety, restlessness, exaggerated startle response and passive behaviour (p. 227). Similar to the previous series of case studies, the results of this study were extremely positive with three of the four cases reported showing dramatic and generalized improvements across all areas of their lives according to caregiver reports of mood, compliance and the PTSD symptoms previously noted at assessment. Joany’s trauma symptoms, however, did not appear to improve as a consequence of EMDR, although some positive outcomes such as increased energy levels are reported.

In summary, the two studies reviewed suggest that EMDR can potentially be useful for people diagnosed with moderate or severe ID and PTSD. Interestingly, the fact that one of the participants did not improve when others with similar levels of overall ID did, combined with Barol and Seubert’s (2010) findings, may suggest that some difficulties associated with a diagnosis of ASD make EMDR less accessible for clients.

Common methodological issues

Design

All of the articles reviewed utilized case study designs. They therefore present detailed examples of the use of EMDR with an ID client group but do not contribute to efficacy literature as they did not control for the impact of potential confounding variables.

Clinical salience and control

The studies reviewed meet Yin’s (2009) criteria for high clinical significance, as there is very little research specifically documenting the use of EMDR with people diagnosed with ID. Collectively, the articles have high external validity as the cases are complex and appear to have followed referral, assessment, treatment and follow-up procedures that mirror the reality of clinical practice. In particular, the flexibility of the treatment offered to clients, with adaptations being made in line with their individual needs, gives a realistic view of the use of EMDR with this population.

Unfortunately, in order to achieve high external validity, the authors have sacrificed control. For example, both Rodenburg et al. (2009b) and Barol and Seubert (2010) report that EMDR was administered concurrently with an existing care package, making it unclear which part of the treatment offered was responsible for the positive effects reported and limiting the validity of the study. Similarly, the adaptations the therapists made to the original protocol in order to be responsive, including level of therapist intervention, are not described in enough detail to allow for replication in any of the articles. In addition, although all authors videotaped the sessions to ensure internal reliability, insufficient information is given about how reliability was assessed.

Although the cases are of high quality in terms of clinical significance, they have neglected to provide adequate control to ensure the validity and reliability of their findings.

Definitions and outcome measurement

Definitions of mild, moderate and severe ID varied widely across studies. None of the studies included in this review provide adequate information about how the diagnosis of ID was made to allow the reader to ascertain whether the sample would meet DSM-5 criteria for ID. In addition, participants held a wide range of additional diagnoses. This increases the external validity of the cases presented; however, it is unclear at times whether it is the level of ID or the co-morbid condition that impacts the utility of EMDR.

Similarly, the articles reviewed allude to the difficulties faced in establishing whether participants met the criteria for PTSD due to difficulties with communication and the variety of ways distress is expressed. The wide variety of symptoms described indicates that the authors used clinical judgement rather than the DSM-5 criteria to define trauma-related symptoms. This raises questions about whether the criteria used to assess PTSD in the general population are applicable to people with ID. The problem is further compounded in the studies that have attempted to include participants diagnosed with moderate or severe ID, as in these cases, authors have been reliant on caregiver reports of traumatic events and symptoms to make diagnoses. The constructs of both ID and PTSD are therefore poorly defined across all the articles reviewed.

The difficulties in diagnosing PTSD described above inevitably led to difficulties with outcome measurement, and consequently, the articles have low construct validity. Rodenburg et al. (2009b) used the IES, a self-report measure specifically developed to reflect International Classification of Diseases, 10th revision and DSM-III criteria for PTSD, which has had its validity and reliability repeatedly found to be good (Weiss, 2004). The fact that the authors also included a qualitative interview and that there is an explicit chain of evidence further adds to the validity of the study. However, there was no triangulation or follow-up data recorded. Therefore, no conclusions regarding the long-term effects of EMDR for Tom could be drawn, and the case must be considered incomplete according to Yin’s (2009) criteria.

Mevissen et al. (2011a, 2011b, 2012) did not attempt to utilize formal assessment or outcome measurement tools. In these cases, the initial diagnosis of PTSD appears to have been made as a result of informal discussions with family, carers and the clients themselves and the outcome assessed by the self-report of clients and their caregivers in conversation with the therapist. No clear chain of evidence is demonstrated. In addition, follow-up periods range between 3 months and 2.5 years and no explanation for this is given, making it difficult to assess whether the cases were considered complete or whether other factors determined the end of data collection.

Barol and Seubert (2010) clearly made significant attempts at methodological rigour. They describe compiling an assessment tool based on the DSM-IV criteria for PTSD, the Psychiatric Questionnaire and other PTSD indicators, which they intended to use as a pre- and post-treatment measure, whilst triangulating this information with feedback from participants, caregivers and observations. Unfortunately, the authors report that ‘lack of caregiver understanding’ of the concepts to be measured prevented triangulation and results of the post-treatment measures are only cited for one of the clients (p. 165). It is therefore unclear whether reduction in specific PTSD symptoms was achieved.

In summary, difficulties with the definition of PTSD have clearly led to inadequate outcome measurement across all articles. In all cases, it is unclear whether PTSD symptom reduction in accordance with DSM-5 criteria has taken place. The commonality of this criticism indicates that further work must be done to create clinically useful, valid and reliable assessment tools for assessing PTSD in an ID population.

Role of therapists/caregivers

Mevissen et al. (2011a, 2011b, 2012) acknowledge that they relied upon the use of caregivers as ‘co-therapists’ and describe them as active participants in the treatment. There are several reasons that this is problematic. For example, participants may have been susceptible to misrepresentation. Equally, increased caregiver insight could be an alternative explanation for the improvements reported. It is therefore a limitation of the articles that the authors do not discuss the potential impact of the role of the caregiver. However, the role of the caregiver is not explicitly defined in Rodenburg et al. (2009b) and Barol and Seubert’s (2010) articles. It is likely that all the studies reviewed relied to some extent on caregiver input due to the communication difficulties of the client group, and the literature would benefit from further exploration of how this can be effectively utilized.

Method of BLS

Four of the articles allude to the use of alternate methods of BLS when the participants struggled to focus on the finger movements that are traditionally used (Barol and Seubert, 2010; Mevissen et al., 2011a, 2011b, 2012). Barol and Seubert (2010), for example, used an ‘electronic tactile-auditory system’ (p. 159) whilst treating Teresa, and a ‘tapping form’ of BLS was used to treat Tom and Kate (p. 161). The authors do not, however, describe these methods in replicable detail. In addition, none of the articles consider the potential impact the method of BLS may have had on the participants’ experience of treatment and their response to EMDR. An opportunity appears to have been lost, therefore, to open discussion about which alternate methods of BLS produce the most effective results.

Ethics

The articles do not discuss the ethical issues surrounding providing treatment to a vulnerable group, in particular, the potential for re-traumatization that comes with any trauma-focused work and the complexities of gaining consent are not alluded to. Although inadequate detail is reported in all cases, two examples are particularly concerning.

Firstly, Rodenburg et al. (2009b) do not mention consent, but they do state that Tom was ‘reluctant to have treatment, although he was willing to co-operate’ (p. 177). Despite the coercive nature of the medical setting, no discussion regarding Tom’s best interests or capacity to consent to treatment or research participation is recorded.

Secondly, Mevissen et al. (2011a, 2011b, 2012) report using the ‘storytelling method’ developed by Lovett (1999) with clients where communication and focusing difficulties made the Shapiro (2001) protocol for children unworkable. For example, this method was used with Eve, due to her ‘poor communication skills and sudden reluctance to follow instructions’ (Mevissen et al., 2011a: 52). This method involves a parent or caregiver telling the story of the traumatic event, beginning and ending with positive memories. This raises significant ethical issues which are not addressed in the articles. For example, the communication difficulties that render the storytelling method necessary are also likely to make it difficult to establish capacity and consent via usual verbal methods. The authors do not explain how they attempted to address these challenges. In Eve's case, for example, her 'reluctance to follow instructions' could be interpreted as a lack of assent but this possibility is not discussed. In addition, the storytelling method relies on a caregiver or parent who may not have been present at the traumatic event and who would have certainly held a different perspective reporting the experience of the client. The possibility of re-traumatizing clients who have not consented and may not understand the intention of the treatment should not be ignored.

In summary, the general lack of discussion of the complex ethical issues surrounding the application of EMDR with people with ID is a concerning deficit in the articles reviewed.

Consideration of alternative explanations

The issues concerning validity discussed above are compounded in two of the articles by a lack of reflection on other possible explanations for the positive changes reported. Mevissen et al. (2011a, 2012) assume that EMDR is the cause of both PTSD symptom reduction and generalized improvements that were not specifically targeted by the intervention, despite the lack of control inherent in the case study design. The most striking example of this is Mevissen et al.'s (2011a) claim that 'the diagnosis of autism spectrum disorder no longer applied' to Mitchell after his EMDR treatment (p. 50). Similarly, despite the fact that the authors report that EMDR did not significantly reduce Joany's distress, Mevissen et al. (2011b) conclude that if EMDR had been used with the caregiver thought to be triggering Joany's problems, the work may have been more successful. Whilst this is a possible avenue for future work, it is disappointing that the authors do not open up discussion to consider the possible circumstances under which EMDR may or may not be useful or when other theoretical models may have something to offer clients.

In contrast, Barol and Seubert (2010) acknowledge several possible explanations for both their positive and negative findings and use appropriately tentative language in outlining their conclusions. In particular, the discussion of Teresa's inconsistent progress includes several potential explanations. For example, they suggest that Teresa's ID may have made it difficult for her to 'generalize' and sustain her learning 'when faced with life triggers and challenges' or that she may have been attempting to please the therapist when she reported that her distress had reduced in the previous session (p. 160). This adds a new dimension to the literature in this area as it opens discussion concerning the possible pitfalls of using EMDR with this population. The other articles do not directly refer to alternative explanations, but they are appropriately tentative in their language.

In summary, there is a tendency in the majority of the articles reviewed to present EMDR as the sole explanation for clinical improvement without critical evaluation. This limits their quality according to Yin's (2009) criteria. When alternative explanations are considered, they provide useful insights for clinicians considering using EMDR with intellectually disabled clients.

Research implications

The case studies reviewed indicate that the use of EMDR with an intellectually disabled population is a potentially exciting area for new research. NICE, the advisory body responsible for providing clinical guidance to the National Health Service (NHS), currently, does not provide any advice for the treatment of PTSD in clients with ID. However, based on the recommendations that are made for other groups, it seems unlikely that EMDR will be recommended in the absence of randomized control trials demonstrating its efficacy. As practitioners operating within the NHS are obligated to follow NICE guidance where possible, it is therefore likely that intellectually disabled clients may be denied a potentially helpful treatment until the barriers to methodological rigour, including the substantial ethical issues discussed in this review are overcome. It is therefore crucial that these exploratory studies are followed up with more rigorous and controlled research that can begin to draw more generalizable conclusions regarding effectiveness and efficacy. Such research may also be able to shed more light on whether ASD symptoms limit the utility of EMDR and which methods of BLS prove most effective. In addition, the difficulties with outcome measurement discussed above indicate that there is a need for the development of valid and reliable tools to assess PTSD symptoms in people diagnosed with ID. Particularly for those people for who (due to their level of impairment) the self-report measures such as the IES are not suitable.

Clinical implications

The articles reviewed provide reasons to be optimistic about the use of EMDR with people diagnosed with ID. The majority of cases appeared to benefit from the treatment, although this was not always in ways that are measurable on typical PTSD symptom checklists. Importantly, the articles reviewed have raised the question of how best to adapt EMDR to meet the needs of this client group and provide several examples to clinicians of adaptations that appear to have been successful. This review has also highlighted the complex ethical issues surrounding the application of a trauma-focused treatment to a vulnerable client group. Clinicians working with people with ID will experience negotiating these dilemmas; however, particular care is needed as EMDR requires a focus on past experiences that typical behavioural interventions do not.

Conclusions

There is an ethical obligation for clinicians to provide evidence-based treatments to clients diagnosed with ID who have suffered trauma. Historically, this has been considered impossible due to the communication difficulties of clients in this group. This review suggests that the assumption that people with ID cannot benefit from EMDR may be misguided. In the light of the optimistic findings of the cases reviewed, it is imperative that, despite the challenges this will involve, more rigorous research takes place, which can establish the effectiveness and efficacy of EMDR for this population. In addition, however, clinicians must consider the utility and appropriateness of EMDR for their individual clients. It is crucial that the ethical implications of the work are foregrounded in all future thinking concerning the use of EMDR for people with ID.

References

Adler-Tapia R and Settle C (2009) Evidence of the efficacy of EMDR with children and adolescents in individual psychotherapy: a review of the research published in peer-reviewed journals. *Journal of EMDR Practice and Research* 3(4): 232–247.

American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders DSM-5*. 5th ed. Washington DC: American Psychiatric Association.

Barol BI and Seubert A (2010) Stepping stones: EMDR treatment of individuals with intellectual and developmental disabilities and challenging behavior. *Journal of EMDR Practice and Research* 4(4): 156–169.

Bisson JI, Ehlers A, Matthews R, et al. (2007) Psychological treatments for chronic post-traumatic stress disorder: systematic review and meta-analysis. *The British Journal of Psychiatry* 190(2): 97–104.

Fleming J (2012) The effectiveness of eye movement desensitization and reprocessing in the treatment of traumatized children and youth. *Journal of EMDR Practice and Research* 6(1): 16–26.

Fletcher R, Loschen E, Stavrakaki C, et al. (eds) (2007) *Diagnostic Manual-Intellectual Disability (DM-ID): A Textbook of Diagnosis of Mental Disorders in Persons with Intellectual Disability*. Kingston: NAAD Press.

Ho MSK and Lee CW (2012) Cognitive behaviour therapy versus eye movement desensitization and reprocessing for post-traumatic disorder – is it all in the homework then? *European Review of Applied Psychology/Revue Europeenne De Psychologie Appliquee* 62(4): 253–260.

Mevissen L and De Jongh A (2010) PTSD and its treatment in people with intellectual disabilities: a review of the literature. *Clinical Psychology Review* 30(3): 308–316.

Mevissen L, Lievegoed R and De Jongh A (2011a) EMDR treatment in people with mild ID and PTSD: 4 cases. *Psychiatric Quarterly* 82(1): 43–57.

Mevissen L, Lievegoed R, Seubert A, et al. (2011b) Do persons with intellectual disability and limited verbal capacities respond to trauma treatment? *Journal of Intellectual and Developmental Disability* 36(4): 274–279.

Mevissen L, Lievegoed R, Seubert A, et al. (2012) Treatment of PTSD in people with severe intellectual disabilities: a case series. *Developmental Neurorehabilitation* 15(3): 223–232.

National Institute for Health and Care Excellence (2005). Post-traumatic stress disorder (PTSD): the management of PTSD in adults and children in primary and secondary care. NICE clinical guidelines CG26. Available at: http://publications.nice.org.uk/post-traumatic-stress-disorder-ptsd-cg26/research-recommendations (accessed 4 March 2013).

Lovett J (1999) *Small Wonders: Healing Childhood Trauma with EMDR*. New York: The Free Press.

Ponniah K and Hollon SD (2009) Empirically supported psychological treatments for adult acute stress disorder and posttraumatic stress disorder: a review. *Depression and Anxiety* 26(12): 1086–1109.

Rodenburg R, Benjamin A, De Roos C, et al. (2009a) Efficacy of EMDR in children: A meta-analysis. *Clinical Psychology Review* 29(7): 599–606.

Rodenburg R, Benjamin A, Meijer AM, et al. (2009b) Eye movement desensitization and reprocessing in an adolescent with epilepsy and mild intellectual disability. *Epilepsy & Behavior* 16(1): 75–180.

Shapiro F (2001) *Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols and Procedures*. 2nd ed. New York: The Guilford Press.

Tomasulo DJ and Razza NJ (2007) Posttraumatic stress disorder. In: Fletcher R, Loschen E, Stavrakaki C and First M (eds) *Diagnostic Manual-Intellectual Disability (DM-ID): A Textbook of Diagnosis of Mental Disorders in Persons with Intellectual Disability*. Kingston: NAAD Press.

Weiss DS (2004) The Impact of Event Scale–Revised. In: Wilson JP and Keane TM (eds) *Assessing Psychological Trauma and PTSD*. 2nd ed. New York: The Guilford Press.

Yin RK (2009) *Case Study Research: Design and Methods*. 4th ed. London: Sage.