

An Exploration into the Practice of Dance Movement Psychotherapy with Autistic Adults

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Abstract

Background

Autism is a lifelong neurological and developmental condition that presents with varying challenges with social communication and the presence of restricted interests and repetitive behaviours. DMP is an appropriate form of psychotherapy for autistic adults and the evidence reports that it is efficacious. However, whilst the evidence-based literature tests the efficacy of DMP practice; it does not describe how DMP is practiced with autistic adults.

Aim

This study aimed to identify how DMP practitioners work internationally with autistic adults and how their lived experiences, beliefs and values inform their approach.

Design

A systematic review of the existing literature for DMP for autistic adults and an international qualitative interview study utilising a constructivist grounded theory analysis approach.

Findings

Due to autism being a spectrum of needs with each individuals' experience and presentation of autism being different, adaptability and a focus on the individuals' specific needs is important in the practice of DMP. The common use of identity-first language alongside a multimodal theoretical approach with emphasis on person-centredness is key to working with an individual. The needs of that individual dictate the therapy that is offered including the aims and goal of practice, sensory considerations that govern how the space will be set up, and the methods and props utilised within the sessions. Structured sessions, regular frequency, and long-term duration provide predictability and familiarity for an individual who has autism. However, this needs to be flexible for the individual.

Conclusion

The study created an evidence-based, theory-informed model of DMP practice with autistic adults. Additionally, discrepancies between the findings and the existing literature were identified and draft DMP guidelines were devised for future practice.

Keywords – Autism; Dance Movement Psychotherapy; Constructivist Grounded Theory; systematic review; semi-structured interview; qualitative

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List of abbreviations

ABA – Applied Behaviour Analysis
AD – Autistic Disorder
ASC – Autism Spectrum Condition
ASD – Autism Spectrum Disorder
AS – Asperger Syndrome
AP – Art Psychotherapy
ADMP UK - Association of Dance Movement Psychotherapy UK
CCM – Constant Comparative Method
CD - Childhood Disintegrative Disorder
CBT – Cognitive Behaviour Therapy
CGT – Constructivist Grounded Theory
DMP – Dance Movement Psychotherapy
DMT - Dance Movement Therapy
DT - Dramatherapy/Drama Therapy
DSM – Diagnostic and Statistical Manual of Mental Disorders
GT – Grounded Theory
MT – Music Therapy
PDD - Pervasive Developmental Disorder
PDD-NOS - Pervasive Developmental Disorder (Not Otherwise Specified)
PECS – Picture Exchange Communication System
PRISMA – Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCT – Randomised Control Trial
RD – Rett’s Disorder
SPIO – Study design, population, intervention, outcome
TiDier – Template for Intervention Description and Replication

Introduction

Introduction

This thesis will present a study of how DMP practitioners work with autistic adults.

The introduction will begin with a review of the autism and DMP terminology used in the literature and the chosen terms to be used in the thesis. It will then present the background of the topic, researcher position, rationale for the study, the study aim and objectives, and a brief overview of the thesis structure.

Terminology used

Autism (Autism Spectrum Disorder) has many terms that are used. In this thesis, the author will adopt the term autism in line with the current terminology used in the UK (Autistica, 2022; National Autistic Society, 2022; NHS, 2022). Other terminology may include Autism Spectrum Condition (ASC), Autism, Asperger Syndrome and Asperger. The identity-first language 'autistic person' is becoming more commonly used amongst individuals who have autism due to the growing belief that autism is part of self-identity. (Botha, Hanlon and Williams, 2021). In this thesis, an identity-first language will be adopted. The rationale for using this language will be further discussed in the background information (chapter one).

There are also a number of different terms used for Dance Movement Psychotherapy (DMP). In the UK, the title DMP was voted for by ADMP UK members in 2007. Prior to this, the title Dance Movement Therapy (DMT) was used. However, the title is interchangeable in other countries such as dance/movement therapy (USA); dance therapy (Europe); dance-movement therapy (Australia). For clarity, and in line with UK-based terminology, I will refer to DMP for the purpose of this thesis.

Background

Autism is a lifelong neurological and developmental condition that presents with varying challenges with social communication and the presence of restricted interests and repetitive behaviours (Hodges, Fealko and Soares, 2020). There are no precise figures of how many adults have autism worldwide. The Global Health Data Exchange (2022), which gathers rates worldwide has reported a rising trend since the 1990s, and for 2022 they give a global average for autism prevalence of 83.22 out of 10,000. Though this is for children and there are no figures given for adults, autism is lifelong (Whiteley, Carr and Shattock, 2019), and this indicates that there will be a rising number of autistic adults. The most current prevalence studies of autism for the UK indicate that there are 500,000 autistic adults (Autistica, 2022).

It is reported that services for autistic adults remain extremely sparse and studies focus mostly on employment (Shattuck et al., 2020). The issues around the lack of services for adults stem from delays and extended wait times for diagnosis, followed by insufficient supports (British Medical Association, 2020). To consider the needs of children and young people with autism, there are just over 1000 SEN schools in the UK, which offer children a range of therapies. Therapies in this context relate to: Speech and Language Therapy, Occupational Therapy, Positive Behaviour Support, Counselling, Arts Therapies, and input from Educational Psychologists. However, 1 in every 100 children are diagnosed with autism; meaning there are many diagnosed children not attending SEN schools (McMahon, 2021). 71% of children who have autism attend mainstream schools and research indicates that these schools are not equipped to support their needs (Brede et al., 2017). Without adequate provision to support children who have autism, once they reach adulthood challenges with self-

regulation and mental health issues including symptoms of anxiety and depression continue to rise.

Research suggests that almost 80% of autistic adults will suffer mental health issues (Autistica, 2022). Mental health issues such as anxiety and depression can present as a comorbid condition alongside an individual's behaviour (Bind et al., 2019). The mental health problems most commonly recognised amongst autistic adults is depression and anxiety (Hollocks et al., 2019). Anxiety disorders current and lifetime prevalence is 27% and 42%, and for depressive disorder is 23% and 37% (Hollocks et al., 2019). Mental health issues for autistic adults can escalate and develop into self-injurious behaviours if not treated (Lavery et al., 2020). The bodies of children who have autism grow bigger and stronger going into adulthood, and as a result, there is a higher risk of self-harm or harming others, particularly if they are unable to communicate their emotions (Edelson and Natowicz, 2021).

Adults who have autism do not always receive adequate support and there is an urgent need for autism treatment pathways in mental health services (Camm-Crosbie et al., 2018). However, few interventions are available for individuals who have more challenges with communication and cognition (Walton and Ingersoll, 2013). For individuals who have limited or no verbal communication; the barrier to communication may contribute to this alarmingly low percentage of autistic adults receiving support. The supports may simply be non-accessible. The National Institute for Clinical Excellence (NICE, 2021:1) state that:

“Clinical features and cognitive differences characteristic of autism mean autistic people require adaptations to standard evidence-based psychological treatments to adequately meet their needs”.

However, one study reported that within the mental health services there is a lack of suitable modified psychological therapies for autistic adults (Camm-Crosbie et al., 2018).

The adaptability of psychological therapies is therefore highly important when supporting autistic adults. One of the most fundamental challenges faced by autistic individuals is communication (Brignell et al., 2018). Autistic individuals may not be able to communicate through speech or language and could find talking challenging (Mason et al., 2019). Psychological treatments informed by Cognitive Behaviour Therapy (CBT) have been confirmed to be efficacious for autistic adults with comorbid conditions such as depression and anxiety (Cooper, Loades and Russell, 2018). Nevertheless, it is recognised that there needs to be more research into psychological therapies that can be adaptive in their approach such as DMP, particularly for individuals who are non-verbal.

DMP is an appropriate form of psychotherapy for autistic adults and the research reports that it is efficacious (Edwards, 2015; Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Doña, 2013). DMP can improve the mental health and well-being of autistic adults through providing non-verbal methods of communication to express emotions (Takahashi, Matsushima and Toshihiro, 2019). Significant, in non-verbal communication is the dance, which comprises of a particular way of communicating with others, and most predominantly with yourself (Arsith et al., 2018). Arsith et al. (2018) argue that movement, expression, posture and gestures can communicate emotion, feelings and attitudes, and can be a form of communication, as well as therapy. The practice of non-verbal and verbal reflection combined with dance and body movement, creates the fundamental facets of a creative and relational

approach seen in DMP practice (ADMP UK, 2021). Next, I will discuss my position as a researcher and the rationale for the study.

Researcher Positionality

I approach this research from the position of a person-centred DMP practitioner who has sixteen years' experience working with people of all ages who have autism. Much of the work that I have done with autistic adults has been in day care centres in the UK. Over the course of my work, I saw numerous individuals who would previously spend their days sitting alone, start to join in with social activities and saw their quality-of-life increase. I helped individuals who had suffered familial loss, or who were facing major transition in their life such as moving from the family home into residential housing to process their emotions surrounding these changes to their circumstance. Something they had not been able to do prior to therapy. I helped individuals who suffered from extreme anxiety, or who exhibited challenging behaviours to the point of exclusion from the day care centres to find methods of self-regulation, and self-expression that helped to limit their anxiety and self-manage their challenging behaviours. Through this experience, I have built a passion for working with autistic adults. Therefore, when making the decision of what area to focus on for my PhD, it was a natural choice for me to focus on DMP for autistic adults. When conducting the initial reading, it was apparent that there was no literature on how DMP practitioners work with autistic adults.

To consider the application of classic grounded theory, it would be recommended that no literature should be viewed previously (Strauss and Glaser, 1979). However, Constructivist Grounded Theory (CGT) supports the viewing of literature prior to data collection. Understanding the literature and bringing in the sixteen years' knowledge

and experience I hold as a DMP practitioner working with autistic adults, helped to inform the type of questions asked that were relevant to support semi-structured interviews. A CGT methodology supported the exploration of how DMP practitioners work worldwide (Charmaz, 2014).

A 'being' ontological position will be adopted for this study, which is defined as a "reality being composed of clearly formed entities with identifiable properties" (Gray, 2014: 20). The position reflects that autism will always be formed of the same characteristics regardless of what 'label' it holds and where it is experienced. The main characteristics of autism, as outlined by the DSM-V (American Psychological Association, 2013), is that there are challenges with social interaction, communication, and restrictive interests/repetitive behaviours. Therefore, autism will be recognisable regardless of where it is seen. However, recognition for how the individual presents and experiences their autism through the prism of their culture and background will be acknowledged (Lester and O'Reilly, 2021). The practice of DMP has definable properties and clinical methods for example affect attunement. In the case of affect attunement, it is an identifiable clinical method that is not changeable. It is clearly formed, as it is described in DMP literature, and is consistently recognisable wherever seen (Renzo et al., 2020). Affect attunement also has identifiable properties of relational matching/mismatching to communicate shared understanding (Rollins and Greenwald, 2013).

As a researcher, I will adopt a constructivist epistemology for this study due to this approach underpinning human interactions, as well as identifying previous knowledge and individual constructs (Dennick, 2016). Epistemology is defined as providing a philosophical context for determining what types of knowledge are appropriate and suitable (Gray, 2014). The impact that a constructivist epistemology

will have on the research design of a CGT methodology is that it will permit me to review literature prior to data collection, as well as bringing my experience and knowledge as a DMP practitioner. Additionally, the process of memoing will provide a reflexive space to further question and process the collected data through the lenses of both researcher and DMP practitioner.

Rationale for this study

As a DMP practitioner, understanding the common ways in which DMP practitioners practice is extremely important. One aspect of DMP practice focuses on communication, which is supportive to one of the core diagnostic criteria outlined in the DSM-V (American Psychiatric Association, 2013). Barriers to communication and expression are commonly challenging for autistic individuals (Mason et al., 2019). Communication and social interaction are two core areas that DMP largely focuses upon (Cummins et al., 2020). Equally, social communication is one of the main challenges faced by autistic adults (DSM-V, 2013). However, interventions remain extremely limited (Maddox et al., 2021).

Recent studies have shown DMP interventions to be efficacious for treating autistic adults such as improving communication and social skills (Edwards, 2015; Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). However, whilst DMP research focuses on efficacy, what is unclear in the studies is an understanding of 'how' DMP intervention works to support the well-being of an autistic adult. Efficacy relates to how affective an intervention is, and outcome measures are used to mark significant clinical change from receiving an intervention (Reyes-Ortega et al., 2020; et al., 2012). Currently no studies have been identified,

which explore the underlying mechanisms of how DMP practitioners work with autistic adults. Without an understanding of how DMP works, the link between efficacious practices for autistic adults is less evident in the literature. Knowledge of how DMP is being practiced with autistic adults will better support shared learning and efficacious practice in all settings by DMP practitioners. The evidence gained from future efficacy studies can be strengthened by including known DMP practices. Along with the practice of DMP with autistic adults, knowledge of the lived experiences, beliefs and values of the DMP practitioners will give context and reasoning to the practices.

Aim and objectives

The aim of the research is to identify how DMP practitioners work internationally with autistic adults and how their lived experiences, beliefs and values inform their approach. The following objectives will support the research to address this aim and answer the research questions below:

1. Conduct a systematic review of the evidence to identify the characteristics of published efficacy studies including the number of participants, age, gender, 'level of functioning', type of clinical setting, country and type of study, how DMP practitioners work with autistic adults including the interventions used.
2. Identify and describe the DMP intervention using the TiDier checklist (Hoffman et al., 2014), as a supporting reporting framework.
3. Identify the practices, lived experiences, beliefs and values of DMP practitioners who work with autistic adults.
4. To compare the practice reported in efficacy studies with self-reported practice of practitioners.

5. Generate DMP practice guidelines informed by the TiDier checklist, and generate an overarching theory of how DMP is practiced for autistic adults.

This research study focuses on analysing current practice and the development of guiding principles to support DMP practice with autistic adults.

Research questions

1. What is the current international evidence on how DMP practitioners work with autistic adults?
2. How do DMP practitioners work with autistic adults internationally and what informs their approach?
3. Are there differences between the reported practice of DMP practitioners internationally and the practice of DMP in the existing literature?

Thesis structure

The processes that the thesis will follow to answer the research questions and to meet the aim and objectives are presented and discussed. This introduction presented the background and rationale for the study, the study aim and objectives, and researcher position. The thesis structure is presented below.

Chapter one: Background

The chapter will introduce the concepts and definitions of autism. Next, the aetiological and co-existing conditions of autism will be discussed, and the existing services for autistic adults combined with an explanation of the neurodiversity paradigm. Following this, the wider literature in relation to the arts therapies including DMP and autism will be reviewed.

Chapter two: Systematic review of the literature

This chapter provides a contemporary review of the existing studies in relation to DMP and autistic adults. The systematic review highlights the existing studies that test the efficacy whilst providing an understanding of what is missing in the literature regarding how DMP is practiced.

Chapter three: Methodology

This chapter outlines the fundamental philosophies and the researcher's position in relation to the context of the study including the ontological and epistemological positions. Next, the research approach is explained, the methodological framework utilised, and the methods and analysis tool used. An acknowledgement regarding rigour will be presented followed by the CGT criteria.

Chapter four: Methods

The chapter will firstly look at the adopted method of semi-structured interviews. Next, the inclusion and exclusion criteria will be presented. Following these sections, an acknowledgement of the ethical considerations and ethical approval stage will be given. The information and consent form process will be discussed. Confidentiality and an explanation of how data was managed will be discussed followed by the sampling and recruitment of practitioners. Last will be a discussion of how rigour in a CGT methodological approach is used to increase credibility, originality, resonance and usefulness and fit (Charmaz, 2014).

Chapter five: CGT coding context

The stages of recruitment and demographics of the practitioners will be described and include the interview process and how a CGT approach was assured. An explanation of how data saturation was achieved will be provided followed by a discussion of a formulation of the initial codes, focused codes, and conceptual categories derived from the data analysis process.

Chapter six: Findings

This chapter will present the findings to answer the objectives of identifying and describing the DMP intervention using the TiDier checklist, as a supporting reporting framework, and identifying the practices, lived experiences, beliefs and values of DMP practitioners who work with autistic adults. Within this chapter, the findings from the CGT coding will be presented ordered by the three conceptual codes derived from the initial code stage. These will further be related to the TiDier checklist. At the end of this chapter, there will be a visual representation of the DMP intervention for autistic adults organised within the TiDier checklist.

Chapter seven: Discussion

This chapter will discuss the significance between the findings and the evidence seen in DMP literature. The TiDier checklist will be used as a framework to structure the critical analysis and to ensure that all aspects of DMP are included. An evidence-based, theory-informed model will be presented along with draft guiding principles for DMP practice with autistic adults.

Chapter eight: Conclusion

This chapter includes a summary of the overall study and the highlights will outline the strengths of the study, the utilisation of a CGT methodology, use of semi-structured interviews, systematic review supporting the lack of literature in DMP, limitations, original contribution to knowledge, recommendations for research and practice, and concluding thoughts.

Chapter 1: Background information

This chapter will provide context in answering the research question for this study of 'how DMP practitioners work with autistic adults?' The wider literature will be discussed including the key descriptions in relation to autism. Key descriptions will include definitions; history of the diagnostic systems of classifications; autism terms previously used; the current diagnostic system of classification; ontological status of autism; aetiology and epidemiology; descriptions of the varying needs that autistic adults may have; comorbid conditions and the Neurodiversity Movement.

Contemporary treatment and intervention services that currently exist will be discussed. The chapter will conclude with a presentation of available evidence-based interventions related to arts therapies and autism, and DMP and autism.

Following the wider literature based on autism and the psychological therapies, more specific context is provided, which focuses on DMP with autistic adults along with relevant background information. A description of the arts therapies is presented identifying the commonalities and differences. The key concepts of DMP are introduced detailing its suitability as a psychological therapy for autistic adults.

The background information presented in this chapter, and the following chapter based on a systematic review of the literature, support the relevance of this current study in providing a new contribution to knowledge in relation to DMP for autistic adults.

1.1 Context of autism

There are many and varied definitions of autism in the literature such as 'Autism Spectrum Disorder'; 'Autism Spectrum Condition'; 'Autistic Disorder'. For the purpose of this research, the term 'Autism' will be used. Autism is defined as a

neurological and developmental disorder that is a lifelong condition beginning in early childhood (Houy-Durand, 2019). In the UK/internationally, the autistic community favour terminology such as ‘autistic person’, as it is believed that autism is a key aspect of an individual’s identity (ASAN, 2022). Professionals, and some parents of children who have autism, are also adopting a person-first identity (Autistica, 2022; NHS, 2022). It is believed by individuals who have autism that putting the ‘person’ before any identifier or label is an attempt to emphasise the aspect of humanity (ASAN, 2022).

A growing body of literature, in particular the NICE guidance (June 2022) highlighted that an identity-first language is to be used such as ‘autistic person’. In contrast to a person-first identity, identity-first language is considered to be less stigmatising and re-humanising in seeing the disability or ‘diagnostic label’, as important to a person’s identity. A participant in Botha et al’s. (2021: 2) study stated “The spectrum gave me a new identity, which I view as mostly a positive identity”. In support of autistic people, NICE’s UK-based guidance, recommends professionals to adopt an identity-first language.

Vivanti (2015) stated that the preference of the autism community was to use identity-first language. The identity-first language is in contrast to Kenny et al’s. (2016) survey, which reported that it may not reflect the experience of groups in the autism community that had not engaged in the study such as less verbal adults. Alike Kenny et al’s. (2016) viewpoint, Vivanti (2020) commented that autistic people are:

“Vulnerable to experiencing violations of their human rights and highlights how non-speaking autistic people may have additional difficulties in advocating for their rights, and may therefore be ‘more at risk to be treated as ‘less than people’” (Vivanti, 2020: 2).

In the current literature, it appears that both viewpoints are valid; identity-first and person-first (Buijsman, Begeer and Scheeren, 2022). The findings in Bury et al.'s (2020) study outline the significance of inclusive discussion concerning preference of language used for each individual. Similar to Buijsman, Begeer and Scheeren, (2022); Bury et al. (2020), Tepest (2021:5) stated "different perspectives should be adequately represented". Despite, the growing literature acknowledging language preference and this not reaching consensus, the potential for this research in liaising with stakeholders post PhD, justifies an identity-first language in this thesis with the aim of speaking to both professionals and activists. The researcher's person-centred stance leads them to the individuals' choice of language that they wish to use in regards to how they wish to be addressed. Additionally, the researcher's person-centred stance is cognisant of identity-first language, as self-identity is in line with one of the person-centred principles; acceptance (Amari, 2022). Therefore, the identity-first language is in line with current literature, and whilst on an individual basis the researcher would be able to ascertain an individual's preference. On a collective basis, the majority preference is the favoured language choice (Buijsman, Begeer and Scheeren, 2022; Bury et al., 2020; Botha et al., 2021).

Autism is also called a 'spectrum disorder' due to the display of a wide range of symptoms (National Institute of Child Health and Human Development, 2016). Leo Kanner first described the diagnosis 'autism' in 1943 where he recognised through his clinical observations unfamiliar and stereotypical patterns of behaviour (Kanner, 1943). The American Psychiatric Association (2013) highlight many terms used to refer to an individual who has autism including: Kanner Autism, early infantile Autism, Atypical Autism, Classic Autism, Autism Spectrum Condition (ASC), 'High Functioning Autism', Pervasive Development Disorder (PDD), Pathological Demand

Avoidance (PDA) and Asperger Syndrome (AS). The characteristics of autism were defined in the 70s by Wing and Gould (1979).

Hodges, Fealko and Soares (2020) stated that the main aspects of autism are challenges with social communication, as well as restricted interests and repetitive behaviours. It is presumed that many aspects contribute to the development of autism including hereditary; neurobiological; developmental and environmental features (Samaritter and Payne, 2017). It was not until 1998 that the epidemiology of autism was reviewed following twenty-three epidemiological surveys (Fombonne, 2003).

The international classifications of psychiatric disorders is presented below, which gives an overview of how there has been a review and update in criteria. The current DSM-V does not include sub-types and provides more depth in understanding of how autism may be seen in adults (Nicolaidis, Kripke and Raymaker, 2014). To support discussion of the DSM-V, the context of the history of classifications and diagnostic criteria is outlined.

1.2 History of classifications and diagnostic criteria

The World Health Organisation's (WHO) International Classifications of Diseases (2018) first described autism, as 'infantile autism', as one of the sub-types of schizophrenia without detailed diagnostic criteria. A further development from the WHO (1974) included a Glossary and Guide to be used alongside the ICD-8. As part of this guidance, 'infantile autism' was re-classified under 'behaviour disorders of childhood' (Leekam et al., 2002). Similar to the first description of autism in the 60s; no specific diagnostic criteria were given (WHO, 1974).

Infantile autism was present in the ICD-9 (WHO, 1977) with an associated Glossary and Guide under Childhood Psychosis combined with Disintegrative Psychosis.

Further developments were made in 1980 when the term Pervasive Developmental Disorder (PDD) was used. The sub-types of infantile autism and PDD were added to the American Psychiatric Association's Diagnostic and Statistical Manual, DSM-III (American Psychiatric Association, 1980). Diagnostic criteria were outlined for each sub-group and included the onset from 30 months for infantile autism (Leekam et al., 2002).

In the 90s, the classifications of ICD-10 (WHO, 1992) and DSM-IV (American Psychiatric Association, 1994) changed the category of autism and placed it within the classification of PDD. PDDs are comparable in the two classifications, though some sub-groups in the ICD-10 are amalgamated in DSM-IV using the term 'pervasive developmental disorders not otherwise specified' (PDD NOS) (Leekam et al., 2002). Inclusive of PDD-NOS, four other sub-types were added: Autistic Disorder; Rett's Disorder; Childhood Disintegrative Disorder; Asperger's Disorder. Leekam et al. (2002) further state that the criteria for ICD-10 and DSM-IV were undistinguishable and used the same term 'Childhood Autism'. Both systems state it is a requirement for 'deficits' to be present in relation to communication, social skills and play before the age of three years (WHO, 1992; WHO, 1994). The last major change to the DSM-IV was that only one of the 'deficits' needed to be present to warrant a diagnosis.

1.3 Autism terms previously used

The Autism terms outlined in the ICD-10 and DSM-IV were; Autistic Disorder (AD); Pervasive Developmental Disorder Otherwise Not Specified (PDD-NOS); Rett's Disorder (RD); Childhood Disintegrative Disorder (CDD); Asperger Syndrome (AS).

The autism terms previously used mentioned above were removed in the most current DSM-V (American Psychiatric Association, 2013) and a single diagnosis has remained that encompassed multiple dimensions (Rosen, Lord and Volmar, 2021). The change was due to a history of mainly unsuccessful attempts to categorise the heterogeneity of autism into empirically distinct sub-types (Georgiades, Szatmari and Boyle, 2013). The DSM-V was constructed by findings from several studies that revealed unpredictability in the number and level of autistic characteristics within and between diagnostic autism terms with comparable core symptom profiles (Christiansz et al., 2016).

The removal of previous autism terms were debated for many reasons, including erasing a significant aspect of an individual's identity, mostly AS, as well as anxieties regarding the loss of services in the case that individuals not meeting more stringent diagnostic criteria (Rosen, Lord and Volmar, 2021). Zander and Bölte (2015) mentioned that the evidence for maintaining the previous autism terms were unsubstantial. The shift to the single diagnosis of autism enhanced diagnostic specificity and good diagnostic sensitivity (Rosen, Lord and Volmar, 2021).

In addition to autism sub-type labels from the DSM-IV, researchers also use labels for describing autistic people such as 'high and low functioning', 'severe autism', 'moderate autism' and 'profound autism (Layton and Hao, 2017; Xie, 2020; Amaral, 2017). Functioning levels are no longer included in the DSM V or ICD-11 (American Psychiatric Association, 2013; World Health Organization, 2018). The DSM-V removed the sub-types and only describes three levels of autism and uses the label 'severity'. The three levels include level 1 requires support; level 2 requires a significant amount of support and level 3 denotes an extremely significant amount of support (American Psychiatric Association, 2013). The above described labels are

still seen in autism related research published after the DSM-V (Edwards, 2014; Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2018). A 'label' becomes part of defining a disability (Mortimer, 2017). Self-advocates have described the detriment of using labels such as 'severe autism', 'low/high functioning' or 'profound autism' as obscuring the individual needs of Autistic people (ASAN, 2021). One individual stated:

“Profound autism” doesn’t give us any actionable information about why a person needs support or what support they need. It doesn’t tell us if a person has speech apraxia or complex medical needs, or if the person needs access to AAC or specific mental health supports” (ASAN, 2021).

In this thesis a person-centred stance is adopted. Therefore, labels to describe autistic people will not be used and preference will be given where possible to the individuals’ specific needs and wishes. However, where labels are seen in the research studies these will be in inverted commas to denote that this is not the researcher’s voice. Additionally, use of labels and other negative language is discussed in the discussion (chapter seven) including use within the interviews, as well as the systematic literature review (chapter two).

1.4 Current classification and diagnostic criteria

The DSM-V (American Psychiatric Association, 2013) and the ICD-11 (World Health Organization, 2018) continue to be the two systems that the diagnosis of autism is classified under. The definition that is currently used by both systems shares similarities in stating that autism is a neurodevelopmental condition where there are ‘social communication impairments and restricted, repetitive patterns of behaviours’ (American Psychiatric Association, 2013: 50). The DSM-V is more in depth than the ICD-11 and is considered below (299.00 F84.0, American Psychiatric Association, 2013:50-51):

- “A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history
1. Persistent deficits in social communication and social interaction
 2. Deficits in nonverbal communicative behaviors used for social interaction
 3. Deficits in developing, maintaining, and understanding relationships
- B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history:
4. Stereotyped or repetitive motor movements, use of objects, or speech
 5. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behaviour
 6. Highly restricted, fixated interests that are abnormal in intensity or focus
 7. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment
- C. Symptoms must be present in the early developmental period
- D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.
- E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay”. (American Psychiatric Association, 2013:50-51).

Further to this definition, the American Psychiatric Association (2012: 52) states that if an individual has a “well-established” diagnosis of the previous autism terms detailed in the DSM-IV, the diagnosis of autism should be given. There is not a clear indication of what is meant by “well-established” (American Psychiatric Association, 2012:52). If the individual has a ‘deficit’ in social communication and does not meet

other areas of the DSM-V criteria, an assessment should be conducted for Social (pragmatic) Communication Disorder (American Psychiatric Association, 2013).

The “social communication and social interaction” criteria seen in part A of the DSM-V (American Psychiatric Association, 2013: 50-51) alongside part B; “restricted, repetitive patterns of behavior, interests, or activities”, are in line with Kanner’s (1943) original definition of autism. However, part C “symptoms must be present in the early developmental period” is indicating that a diagnosis can only be made if symptoms begin early in childhood. In the UK, the estimated prevalence in adults is around 1.1% (Buckley, 2017) or 500,000 adults (Autistica, 2022).

The DSM-V (American Psychiatric Association, 2013) changed its diagnostic criterion regarding the age of onset. Therefore, part C of the DSM-V does not acknowledge that post 36 months, symptoms may emerge in later years. As Aithal (2020:12) argues differences in the “life-course and long-term prognosis” of individuals with autism are extremely common. This supports the claim that many individuals who have autism are undiagnosed until adulthood (Lai and Baron-Cohen, 2015; Huang et al., 2020). The reason for non-diagnosis in adults may include a developing diagnosis, as well as missed and over diagnosed cases of autism (Hosozawa et al., 2020). An understanding of the developmental history and assessment of early medical notes are amongst the challenges in an accurate diagnosis (Lai and Baron-Cohen, 2015).

Adults who have autism appear to learn coping strategies that reduce the visibility of autism characteristics (Huang et al., 2020). Additionally, autistic females are often underdiagnosed or misdiagnosed (Rynkiewicz, Janas-Kozik and Słopień, 2019). Recent research suggests that these underdiagnoses can be partially attributed to varying phenotypes, mental health comorbidities, and the degree of ‘camouflaging’

(Green et al., 2019; Corbett et al., 2021). Rynkiewicz, Janas-Kozik and Słopeń (2019) further comment that autism in females can be notably different and more subtle, especially individuals who have fewer issues with speech and who have average or above average IQ. Research into autistic masking has lately begun to increase indicating that masking is associated to late or missed diagnosis, which results in negative consequences such as burnout and suicidality (Pearson and Rose, 2021). Additionally, research is sparse specifically when focusing on older females and therefore their experiences are presently lacking understanding (Leedham et al., 2020). Considering 2 per 100 adults diagnosed and 1,000,000 adults in the UK processed through the referral system (NHS, 2022), the high prevalence provides a justification for why more interventions are necessary.

The above descriptions discuss a predominantly medical model of autism and matching against the DSM criteria. Similarly, the ICD talks to a medical model of autism. The ontological position of autism through the lens of an autistic person can differ from the clearly defined medical model.

1.5 Ontological status of autism

There is a body of literature that focuses on 'deficits' of an autistic person including the DSM-V (American Psychiatric Association, 2013). One of the characteristics in the DSM-V is problems with social communication. Milton et al (2022) spoke of the double empathy problem, which is discussed as being a two-way process. Chown (2014) further defines the concept of double empathy as cross-neurology, which is a belief that difficulties only occur when persons from differing neurotypes interact.

Milton (2012: 1673) stated that it is to:

“Not suggest that non-autistic people are less capable of developing an understanding of autism than vice versa; as he points out, it is simply that

autistic people have no choice but to try to develop an understanding of society if they are to 'survive and potentially thrive' whereas no such imperative applies in the opposite direction".

Chown (2014) comments that since the ontological status of autism is relatively reliant on only 1% of any population being autistic, our society which is largely a non-autistic neurotype, is primarily a non-autistic society. If this was reversed to 99% of people being autistic, extremely few non-autistic people would undoubtedly reach their full capability to comprehend other non-autistic minds due to interaction mainly with autistic people (Chown, 2014). The DSM-V is an example where autistic people may be misperceived and misunderstood by the neurotypical majority and their being at risk of poor mental health and general well-being (Mitchell, Sheppard and Cassidy, 2021). Research highlights that camouflaging the traits of autism is increasing mental health problems due to not feeling that their autism-specific style of social interaction is valued (Hull et al., 2019). Additionally, it is claimed that marginalising autistic people from society stops neurotypical people learning from cross-neurological social interactions, and continues to increase separation within society (Mitchell, Sheppard and Cassidy, 2021).

Autism has various layers; therefore, autism is a polysemous concept (Hens, 2019). An individual's experience may differ dependant on their culture and background, although autism will still be recognisable by identifiable properties (Gray, 2014). Next the aetiology and epidemiology of autism will be acknowledged to provide context to the appropriateness of DMP as an intervention.

1.6 Aetiology and epidemiology of autism

There is still little agreement about why and how autism is caused (Jones et al., 2021). Though the scientific evidence remains vague and not one cause can be held accountable; researchers from different clinical fields have conducted studies to

look into the aetiology and epidemiology of autism (Chiarotti and Venerosi, 2020; Isaksson et al., 2021).

Recent research indicates that autism is a multivariable condition, though the genetic and non-genetic origins still need further consideration (Vargason et al., 2020). No two individuals who have autism are identical; therefore there are possibly many causes for autism (NHS, 2022). However, it is understood that environmental factors can be a causal factor of autism (Modabbernia, Velhorst and Reichenberg, 2017).

Modabbernia, Velhorst and Reichenberg (2017) further comment that environmental factors may include chemical modification of specific genes, particularly during early foetal development. The chemical modifications of genes may be higher due to maternal infection and medication, which in turn increases the rate of autism (Sato, Uono and Kochiyama, 2022). Ackerman et al's. (2017) study discovered a significant interactive effect between antidepressant exposure and a likely gene disrupting mutation on the varying needs of autism. A genomics study explained that the ongoing advancements in genomics research have the potential to increase our understanding of the significance of gene variants in the causes of autism and possible diagnosis (Ghálaigh, Gallagher and Lopez, 2020).

Body-based causal factors of autism are significantly absent in the literature. Aithal (2020) highlights that causal factors from sensorimotor perspectives have hardly been researched. It is surprising that this is an under researched area considering the diagnostic manuals define this area as a secondary principle in the DSM-V (American Association of Psychiatry, 2013). However, studies appear to focus on external causal factors of autism such as genetics, maternal exposure and environment.

More internal causal factors such as the sensory functionality of the body have not been addressed. The sensorimotor is linked to the vagus nerve (Kenny and Bordoni, 2021). It is argued that if the brain stem malfunctions; many symptoms of autism can occur (Dadalko and Travers, 2018). Caria and De Falco (2015) further argues that when the cortex is deficient from the cerebellum, it can be unable to control the brainstem purposes and impacts on the vagus nerves. Kupari et al (2019: 2508) states that 'sensory functions of the vagus nerve are critical for conscious perceptions'. An impaired vagus nerve (mid-brain) under-controlled and over firing can present the symptoms seen in autism (Caria and De Falco, 2015). Although the system of the Transcutaneous Vagus Nerve Stimulation (tVNS) is not entirely understood, studies have confirmed the possible part of the vagal nerve stimulation in the regulation of mood and brain areas associated with autism (Jin and Kong, 2017).

There is a dearth of studies that focus on vagal nerve stimulation in the regulation of mood and brain areas associated with autism and how it affects the body. What is known regarding the Transcutaneous Vagus Nerve Stimulation (tVNS) is a building awareness of the therapeutic potential for conditions such as autism (Jin and Kong, 2017). The polyvagal Theory will be discussed further in the chapter to explore its use with DMP for autistic adults.

Epidemiology is the branch of medical science that helps to distinguish populations of a particular condition and other factors that may contribute to a particular group of people such as individuals who have autism (Hodges, Fealko and Soares, 2020). In relation to this study, the statistics, sex and socioeconomics of adults who have been diagnosed with autism will be discussed.

More recently, autism has been commonly recognised in adults with 2 per 100 diagnosed and 1,000,000 adults in the UK processed through the referral system (NHS, 2022). However, since the first classification of autism by Kanner in the 60s, there have been more studies that focus on children (Fuld, 2018). Although children are more commonly diagnosed, they are often missed partly due to the diagnostics being based on behavioural characteristics, which are not always immediately present (McCarty and Frye, 2020; Maddox et al., 2017). There are currently 500,000 autistic adults in the UK; this is considered to be underestimated due to children frequently being missed (Autistica, 2022). More studies that focus on adults are needed.

Further limitation seen in the literature is that the statistics that relate to the epidemiology tend to be more focused on children. It is another shortfall that does not back the number of adults affected by autism. Due to such a strong focus on diagnosing children, many adults have been undiagnosed even with more detailed diagnosis criteria. One major problem is that the DSM-V argues that children should be diagnosed under the age of 36 months (American Psychiatric Association, 2013). Therefore, as seen in the 'Not Enough Campaign' the adult population are underdiagnosed, go unseen, and do not have adequate provision and interventions to support their needs (National Autistic Society [NAS], 2022).

A recent study reported that the male-to-female prevalence ratio is nearer to 2:1 (Milner et al., 2019). The evidence confirmed that autism is not diagnosed as often in females as in males, and numerous sex-differential genetic and hormonal aspects may be a contributing factor (Posserud et al., 2021). There are various theories to explain why more boys/men are diagnosed with autism and range from there being a

‘female autism phenotype’ meaning females who have autism display characteristics, which do not fit with the profile (NAS, 2022).

Other theories extend to ‘the extreme male brain’ (Baron-Cohen, 2002: 248), as well as theories based on environmental and biological factors that contribute to the prevalence in men/boys (Nguyen et al., 2020; Karimi et al., 2017). Girls/women who are more likely to use camouflaging strategies than boys/men (Hull et al., 2019), and this could be a contributing factor in the diagnostic biases (Mandy, 2022). Aside from the theories mentioned above, there are discussions regarding autism and the spectrum of needs.

1.7 Autism and the spectrum of needs

In the current DSM-V autism diagnosis criteria, the language ‘severity of autism’ is used (American Psychiatric Association, 2000). Even though different levels on the spectrum were first included in the DSM-III, (American Psychiatric Association, 1980), it had not been part of the diagnostic process previously. The DSM-V added severity-based diagnostic modifiers, which are based on the intensity of needed supports (Mehling and Tassé, 2016). The DSM-V looks at the level of support required, which in addition is impacted by intellectual, behavioural and adaptive functioning (American Psychiatric Association, 2000). The language and presentation of challenging behaviours also augment the prognosis to parents, carers and educators (Kulage et al., 2020; Weitlauf et al., 2014). Adults who have autism appear to fluctuate in relation to their adaptive functioning.

The researcher adopts a person-centred approach and from their own clinical experience, it ensures the individual to be seen. It also communicates inclusivity opposed to an ‘us-them’ attitude. The term ‘severity’ may not sufficiently distinguish the differences in ability and functioning between individuals who have autism (Di

Rezze, Rosenbaum and Zwaigenbaum, 2012). Despite this, the ranking of severity 'high' and 'low' on the basis of IQ is commonly used in research (Mehling and Tassé, 2016).

The DSM-V adopts the language 'severity' and defines three levels based on the categories of social communication functioning and restricted repetitive behaviours (American Psychiatric Association, 2000). A level 1 requires support; level 2 requires a significant amount of support and level 3 denotes an extremely significant amount of support. A level 1 would display very mild difficulties in the areas of communication and transition (Aithal, 2020). To obtain a level 3 severity rating, individuals would need to present extreme challenges in both verbal and non-verbal communication alongside challenging behaviours and difficulties managing change (Aithal, 2020). The aforementioned areas that an individual may find challenging could align with an Intellectual Disability (ID).

Autism was once considered to be highly linked with ID and to exhibit a distinctive IQ profile, with strengths in performance over verbal capabilities (Mehling and Tassé, 2016). Equally, the 'severity levels' defined by the DSM-V discuss capabilities in communication, behaviour or managing change (American Psychiatric Association, 2013). Clough and Handley (2019) discuss diagnostic overshadowing, which is an assumption made regarding the behaviour of a person who has a 'disability', and that the behaviour is part of their disability without exploring other factors including biological. Although there are some similarities between autism and the traits seen with ID and mental health issues, it is important to understand and recognise the individual needs, otherwise there may be a failure to treat appropriately (Clough and Handley, 2019).

A recent study explored the medicalisation of autism and discussed how the sociological theory on medicalisation has shifted in recent decades (Scavarda and Cascio, 2022). Medicalisation is a non-medical issue becoming defined and treated as a medical problem, which needs medical intervention (Kaczmarek, 2019). An example may be treatment such as medication for ritualised behaviours and would need to be evaluated as to whether the behaviours are posing a risk of harm to self or others or are becoming disabling in the individual's everyday life (Matheis, Estabillo and Matson, 2017). Ritualistic behaviours can be a self-regulatory method for an individual who has autism and do not necessarily require medical intervention unless they interfere with everyday life (Sevin, Rieske and Matson, 2015). Autistic people have varying needs and these are part of them as a person and not necessarily due to a mental health or behaviour issue (Clough and Handley, 2019). DMP has a huge impact on individuals who have autism, as there is emphasis on personalisation through a holistic intervention and seeing the entire person's needs (Edwards, 2015).

Similarly, the 'severity' level is an indicator of what support may be appropriate for the individuals' needs. The 'severity' level may change day-day or within different environmental situations (Modabbernia, Velthorst and Reichenberg, 2017).

Understanding the varying needs of autistic adults is important for this PhD study, as it could be a contributing factor to comorbid conditions.

1.8 Comorbid conditions to autism

The literature available associated with medical comorbidities are more likely seen in children who have autism than the general population and include conditions such as Fragile X Syndrome, Down Syndrome, Tuberous Sclerosis Complex, Muscular

Dystrophy (Al-Beltagi, 2021). Neurological conditions are also more likely with children who have autism such as epilepsy, cerebral palsy, congenital defects of the nervous system and headaches; with 80% experiencing sleep disorders and up to 84% having gastrointestinal disorder (Al-Beltagi, 2021). The literature mostly highlights children and there is limited literature available in relation to adults. Gastrointestinal disorder is commonly seen in both children and autistic adults and discussed in the literature (Madra, Ringel and Margolis, 2020). It is recognised that if not treated, it significantly impacts on lowers the individual's quality of life (Hossain et al., 2020; Kulthau et al., 2018). Physical distress and mental health issues may increase for an adult who has autism with comorbid medical issues such as gastrointestinal disorder (Bishop-Fitzpatrick and Rubenstein, 2019).

The prevalence for mental health problems seen in individuals who have autism have increased considerably (Cage, Monaco and Newell, 2018). Emphasis is on mental health problems such as anxiety, depression and Obsessive-Compulsive Disorder (OCD) when looking at mental health comorbidities to autism (Gupta et al., 2018). A recent systematic review and meta-analysis reported that up to 42% of adults had a clinical diagnosis of anxiety; and up to 37% for depressive disorder with a staggering six in ten people reporting that it affected their ability to get on with life (Hollocks et al., 2019; NAS, 2022). Aside from the most emphasised mental health conditions, the National Institute for Health and Care Excellence (NICE) guidelines for autism (2017) acknowledge conditions such as: Attention Deficit Hyperactivity Disorder (ADHD), conduct disorders, mood disorders, Body Dysmorphic Disorder (BDD) and Post-Traumatic Stress Disorder (PTSD), which are regularly connected to mental health problems comorbid to autism

The research highlighted that autistic adults are eight times more likely to experience loneliness compared to the general population (Umagami et al., 2022). The increase of loneliness may be due to altered emotional awareness. Alexithymia is a condition where there are difficulties describing feelings and in distinguishing feelings from the bodily sensations (Poquérusse et al., 2018). When difficulties expressing feelings arise, suicidal feelings may increase. A recent study reports that as many as 11-66% of autistic adults had thought about suicide during their lifetime with 35% attempting suicide (Newell, 2021). Up to 10% of adults in inpatient mental health settings are individuals who have autism, 3 even though only 1% of the population is on the spectrum (Harper et al., 2019). Additionally, over 220 children were in inpatient mental health hospitals in 2019, which is over a 100% increase from the 2015 figure of 110 (Children's Commissioner, 2019). Considering autism is a lifelong condition, these growing figures could reflect on the future adult population. Additionally, these aforementioned statistics regarding an increase of mental health issues amongst autistic people support the need for psychological therapies (Camm-Crosbie et al., 2018).

Colvert et al. (2021) states that psychological issues are 15 times more common for people who have autism than the general population, although the psychological well-being of individuals who have autism is often overlooked. Torrance (2018:11) states that "we are individual human beings first and autistic beings second".

However, the person behind a diagnosis of autism can sometimes go unseen. There is a growing self-advocacy neurodiversity movement to encourage autistic people to find their voice (Aithal, 2020). This neurodiversity movement in autism will be discussed next.

1.9 Neurodiversity movement in autism

Neurodiversity in relation to autism has previously been framed as a difference and a cultural identity opposed to being classified as a disability (Houting, 2018). Houting (2018) further comments that it is perceived by critics as a misrepresentation of neurodiversity, as for some autistic people, autism is undoubtedly a disability.

Autism through a medical lens is seen as a set of symptoms and needing 'treatment'; however, the neurodiversity movement promotes acceptance and focuses on the individual's strengths (Schuck et al., 2021). Within the neurodiversity movement, autism is conceptualised using the social model of disability (Singer, 2016). The social model of disability is based on the understanding that it is not an individual's 'deficit' or 'defect' that denotes a difference, it is society's failure to understand the needs and services that are required (Bryce and Glasby, 2020). The social model can be refreshed for autism through eliminating social obstructions by altering non-autistic people's outlook towards autism including positive language (Woods, 2017). The notion of neurodiversity has guided new debates including areas such as ethics, theory and beliefs (Leadbitter et al., 2019). Houting (2018) stated:

“Disability results not from autism itself but instead from living in a society which tends to be physically, socially and emotionally inhospitable towards autistic people” (Houting, 2018)autismautism

It was believed by autistic self-advocates that autism is a valid way of being (Leadbitter et al., 2019). Through online platforms being available in the late 90s giving a new means of communication, people who have autism were inspired to connect and make contributions to one another (Dekker, 2020). The core argument in the neurodiversity movement is that people vary in relation to their neurological development (Jaarsma and Welin, 2012; Kapp, 2020). In opposition to the language used in the DSM-V, difference does not denote a 'deficit' or 'defect' in the person.

Individuals who have autism are calling for an improvement in mental health services (Autistica, 2022). There are requests from the autistic community for more research to be conducted focusing on effective person-centred mental health interventions (Crane et al., 2018; Cassidy et al., 2020). Regardless of these influences within adult-focused research, the debates are not often referred to in early intervention research, where the voice of autistic people is not present (Leadbitter et al., 2019). In relation to the researcher's ideologies, and experience of using a person-centred approach, the goals of therapy are not to erase the aspects of the person or to make them less autistic, rather to provide a toolkit of coping strategies to increase their quality of life (Fong, Gardiner and Iarocci, 2020). The medical model still dominates, and it is suggested that the behaviour of an autistic person is commonly interpreted from an outsider viewpoint (Moore, 2020). Moreover, the ideologies outlined by the researcher are parallel to recent research, which focuses on available interventions to help people who have autism thrive and reach their full potential (UK Parliament, 2020). Moreover, services need to be adaptive (Cooper, Loades and Russell, 2018).

Communication is multi-factorial and is linked to the environment in which a person's experiences are mutual (Wanko Keutchafo, Kerr and Jarvis, 2020). Communication is an area that can be challenging for autistic people with 30-50% of individuals never developing functional speech (Whitaker et al., 2013). Fernández (2010) defines non-verbal communication as having various communication behaviours that do not carry linguistic content. Research studies have highlighted that there are between 10-33% of autistic adults who do not use more than simple phrases (Lord et al., 2018). However, there is a lack of agreement among researchers in defining non-verbal or minimally verbal (Koegel et al., 2020).

Interventions such as Speech and Language therapy can focus on gesture, sign language, and picture communication; whereas psychological therapies can be problematic when finding treatments to meet their needs (Bennett, 2017). DMP supports an individual through providing an intervention that can support both non-verbal and verbal communication (Koch et al., 2019). Through providing an opportunity to communicate non-verbally, such as accessing DMP sessions, communication becomes more accessible, particularly when spoken words are not exchanged (Bonaccio et al., 2016). The neurodiversity movement is additionally interested in the theories that underpin an understanding of autism. Some neuroscience theories are at the core of our understanding of autism, and these will be explored in the next section 'autism and neuroscience'.

1.10 Autism and neuroscience

After examining the available literature in relation to the arts therapies, it is apparent that the arts therapies are influenced by theories relating to autism and neuroscience such as the Theory of Mind (ToM) (Westby, 2014), Theory-Theory and Simulation-Theory (Baron-Cohen, Lesley and Frith. 1985, 1991; Pennington and Ozonoff, 1996; Valli and Revonsuo, 2009). Additionally, the Polyvagal Theory is an invaluable theory that looks at neuroscience from a 'neuroception' perspective and this theory is less reliant on cognitive based theories and aligns with embodied practices such as DMP (Porges, 2007). However, more emphasis in the arts therapies is placed on older theories relating to neuroscience and these theories tend to be cognitive-based (McClelland and Siegler, 2001). There is a gap in the literature between the body-based neuroscience theories such as Polyvagal, and how it influences the approaches used in arts therapies for autistic people.

ToM derives from mutual interest and involves understanding other peoples' thought, feelings, beliefs and experiences (Milligan, Astington and Dack, 2008). For many years, the literature reported that a decreased ToM are common in people who have autism (Baron-Cohen, Lesley and Frith, 1985). The decrease in ToM for people who have autism is believed to be due to the challenges faced with communication, social interaction, repetitive behaviours and restricted interests (American Psychiatric Association, 2013). However, Rosello et al. (2020) indicated that there is a heterogeneous profile of ToM abilities, which may include individuals who have intellectual disabilities or 'typical development'. ToM is complex and includes cognitive and neurobiological characteristics (Andreou and Skrimpa, 2020). Another theory that includes cognitive and neurobiological characteristics is Polyvagal Theory (PVT).

PVT which extends models of ToM in that it focuses on how the autonomic nervous system affects every somatosensory system in our body (Elbrecht, 2020). The theory addresses the differences between safety and defensive states, and based on the principles of Theraplay (Lindaman, 2022). These principles include 'establishing safety and arousal regulation, enhancing caregiver-child attachment, working directly with the caregivers and the practitioner's use of self (Lindaman, Hong, Maxonight and Peacock, 2020). The PVT theories provide further, supportive methods to assess, plan and treat autistic people. Like ToM and the revised models of Theory-Theory and Simulation Theory, PVT helps to build awareness of self, how an individual can relate to others and how to cope in environments that challenge (Lindaman, 2022).

There is a belief by Polyvagal theorists that the ability to reason is physiological and comes from the body directly, which ultimately impacts on social ques,

communication and how we perceive others and the surrounding environment (Porges, 2015). In relation to ToM, there is a shift from cognitive processing to body processing. The challenges seen in people with autism derive from dissociation due to unpleasant bodily functions, dysregulation and being in a sympathetic state (Bridges, 2015). The aforementioned theories described above inform clinical practice. Next, non-arts therapies interventions will be discussed.

1.11 Non-arts therapies interventions

The most common interventions that are endorsed by the NAS (2022) include a range of communication-based, educational, and behavioural approaches. The approaches include Picture Exchange Communication System (PECS); Structure, Positive, Empathy, Low arousal, Links (SPELL); Social Stories and Speech and Language Therapy (SALT) (NAS, 2022). TEACHH autism Programme (NAS, 2022), is another intervention which responds to the needs of the individual and prepares individuals for transition to employment or post-secondary education (Siu, Lin and Chung, 2019).

Current treatments and recommended interventions are outlined in the National Institute of Clinical Excellence (NICE, 2021) for autistic adults. The interventions cover the areas of psychosocial interventions for autism; psychosocial interventions focused on life skills; biomedical interventions and the core features of autism; psychosocial interventions for behaviour that challenges; combined interventions for behaviour that challenges; interventions for co-existing mental disorders (NICE, 2021). These interventions are in the areas of psychology and psychiatry, nursing, occupational therapy, social care, speech and language therapy (NICE, 2021). All these interventions focus on providing support and reducing symptoms that impact on the individual's quality of life (Hyman, Levy and Myers, 2020). The guidance for

psychosocial interventions outlined by NICE (2021) recommends that for an individual who has no learning disability to mild/moderate learning disability should consider attending an individual or group-based social learning programme. Other psychosocial approaches include modelling; peer feedback; discussion and decision making; creating explicit rules and following suggested strategies for dealing with socially challenging situations (NICE, 2021).

A systematic review of psychosocial interventions for autistic adults reported that Applied Behaviour Analysis (ABA) and Social Cognition Training are most common and focus on communication and social interaction (Bishop-Fitzpatrick, Minsew and Eack, 2013). The interventions that are used for co-existing mental health disorders that are recommended by NICE (2021) are: cognitive and behaviour based Wang et al., 2021).

Aside from psychosocial interventions, NICE (2021) make recommendations to not use certain pharmacological medications, physical and dietary adjustments for autistic adults including chelation; anticonvulsants; exclusion of gluten or ketogenic or vitamins, minerals and diet supplements. In relation to managing behaviours that challenge, the intervention will include looking at factors that may trigger the behaviour such as appropriate care for physical disorders; treatment for any comorbid mental health problems such as taking antidepressant or antipsychotic medications; and interventions aimed at changing the physical or social environment (NICE, 2022).

Treatment and interventions are much needed considering there is inadequate support for autistic adults, and this has been linked to a high risk of depression and suicidality (Cassidy et al., 2018a; Hedley et al., 2017). The most significant

challenge is the lack of appropriate psychological therapies for autistic adults (Cooper, Loades and Russell, 2018). Many interventions require verbal capacity and will not be as accessible for individuals who are not able to verbalise (Coleman et al., 2020; Cooper, Loades and Russell, 2018).

Mental health supports for autistic adults are needed, although many psychological services unadaptable (Cooper, Loades and Russell, 2018). For children, CBT is recommended to help reduce anxiety and to treat mental health problems (Aithal, 2020). However, CBT is under researched for autistic adults despite improvements in mental health symptoms being recognised as similarly seen in the wider population (Gaus, 2011). Further studies are needed to support the evidence-base for autistic adults. Mental health interventions for adults are not as readily available and are overlooked in the existing research (Mandy, 2022).

It is important to ask what the individuals want when it comes to providing support, as these individuals are of adult age. Contemporary research has included individuals who have autism and who can verbalise or for carers/family to speak on their behalf. The challenges in verbal skills may be a contributing factor to the two thirds of autistic adults not getting the help that they need (Williams, Siegel and Mazefsky, 2018). In the next section arts therapies and recent research will be discussed.

1.12 Arts Therapies and autism

There are four arts therapies professions in the UK; those being Music Therapy (MT); Art Psycho/Therapy (AP/T); Dramatherapy (DT) and Dance Movement Psychotherapy (DMP/T). Contextually, although there is a distinction between the disciplines of the arts therapies, they have one main shared commonality, they work

on the premise that the arts can act as a bridge for emotional expression and communication (Volpe, 2021). Karkou and Sanderson (2006) additionally highlight the commonalities inherent in the arts therapies including the way the arts are defined, the use of creativity, imagery, symbolism and metaphor, an overall emphasis on non-verbal communication and an understanding of therapeutic outcomes as closely connected with the therapeutic relationship. Karkou and Sanderson (2006) also conclude from a nation-wide study of arts therapists in the UK that despite important differences, all arts therapists utilise six therapeutic frameworks to one degree or another, that is humanistic, psychoanalytic/psychodynamic, developmental, artistic/creative, active/directive and eclectic/integrative.

The other notable characteristics between the four modalities are that DMP/T uses the body and movement Association of Dance Movement Psychotherapy UK (ADMP UK, 2022); MT focuses on exploring a range of musical styles and instruments, including the voice and the music process is regularly improvised British Association for Music Therapy (BAMT, 2022); AP uses art media as its primary mode British Association of Art Therapists (BAAT, 2022), and DT uses drama and story making British Association of Dramatherapists (BADth, 2020). There are overlaps between the modalities, although they are distinct in relation to their history and styles of practice (Aithal, 2020). All four arts therapies are governed by either the Health Care Profession (HCPC), UK Council for Psychotherapy (UKCP) and have their own art discipline association (British Association of Music Therapy (BAMT); British Association of Art Therapists; British Association of Dramatherapists (BADth); Association of Dance Movement Psychotherapy UK (ADMP UK).

The arts therapies have historically been used within special education needs (SEN) schools (Karkou, 2010); however, literature is dated, and it does not detail whether adults up to 19 years old in these SEN schools receive arts therapies. Additionally, the degree to which these therapeutic practices are relevant to autistic adults and how they are shaping practice relating to this population is still unexplored. Zubala and Karkou (2018:2) state that “arts therapies provision demands answers to more complex questions: for whom interventions work, in what contexts, and, as noted previously, what their active ingredients are, which are all questions already posed in psychotherapy by researchers such as Roth and Fonagy as early as 1996”. To date, extremely limited research has been conducted in the arts therapies that looks at how the intervention works for autistic adults.

Most arts therapy studies tend to focus on whether the intervention is efficacious opposed to how it is practiced. The TiDier checklist (Hoffman et al., 2014) informs the different parts that an intervention consists of (name, why, what, who, how, where and when). Additionally, a logic model is a method that helps to evaluate the intervention of exploring the ‘active ingredients’, which includes ‘implementation’, ‘mechanisms of impact’, ‘outcomes’ and ‘context’ (Bartholomew Eldredge et al., 2016). Bartholomew Eldredge et al. (2016) argue that reliability is weak for replicability without an understanding of the ‘active ingredients’ of how a practitioner works with their clients.

MT has taken steps towards understanding developments in music therapy practice including research with autistic adults. A book was compiled including 34 case studies from music therapists around the world representing practices from a range of clinical orientations (Meadows, 2012). Despite the one case study that focused on

autism being insightful, as well as providing an understanding of how music therapists work; this one study was based on children with no reference to adult age.

Another recent systematic review based on MT in autism focused on autistic adults and MT practice (Marquez-Garcia et al, 2022). This randomised control study used a music-based social story vs reading a social story (Schwartzberg and Silverman, 2013). Even though this was one study that looked at the practice, as well as being adult-based; no significant change was identifiable. The systematic review highlighted the importance of understanding the common practice of MT for people who have autism, as without this understanding the efficacy cannot be reliably tested (Marquez-Garcia et al., 2022).

A systematic review on MT included autistic adults; however, the study looked only at the efficacy and not at practice (James et al., 2015). The outcomes reported 58% positivity for MT intervention for autistic adults, although it only included two specific parts of a MT intervention: specific songs with lyrics and improvisation. Like the existing studies in relation to DMP, studies appear to focus on a type of practice opposed to exploring real life practices. Numerous autism interventions begin by being tested in research situations whereas many variables as possible are controlled; however, in the real world, it is regularly not feasible to control for the experience of the practitioner, the clinical methods used, the theoretical influences, the modes of delivery, and the frequency and duration of therapy (Autism West Midlands, 2017:3).

Similarly, the evidence-based research for AP is efficacy centred and limited with three sources, most conducted with children. A handbook was devised a decade ago, which provides an overview of AP practice, theory and research; however, the

focus is more on children (Malchiodi, 2012). A review of clinical case descriptions was conducted on what works in an AP intervention for autism; however, the focus is again on children (Schweizer, Knorth and Spreen, 2014). A systematic review, which included AP for autistic people, reported that it is an appropriate form of psychotherapy, but the evidence-base for the use and acceptability of AP for autism is yet to be formally evaluated (Utterly et al., 2015). A doctoral research study focusing on the common practices of an AP intervention used a single-case methodology, and although this was descriptive, was based on a child (Durrani, 2019). This highlights there is a scarcity of existing literature in relation to how AP practitioners work with autistic adults. The AP literature, like MT literature, gives an example of a type of therapy being practiced and it does not explore how it is widely practiced in the real world.

A Dramatherapy (DT) systematic review highlighted how the discipline is shifting its focus from case studies to producing evidence-based practice supported by empirical research (Feniger-Schaal and Orkini, 2020). The systematic review reported the efficacy of DT intervention for a variety of different populations including autistic adults. Porter (2014) similarly looked at DT as an intervention for autistic adults, however as with all the arts therapies evidence-based research, the efficacy of the intervention was the priority and the research does not look at how the intervention works or how it reliably transfers in the real world.

Like DT, MT and AP; the DMP literature looks at the efficacy and when the intervention is discussed, they are in the form of a manualised approach (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 16; Mastrominico et al., 2018).

Takahashi, Matsushima and Toshihiro's (2019) systematic review highlighted that there were three studies that focused on children and four studies that focused on

autistic adults. As with the other arts therapies, these are efficacy focused studies and do not look at the way DMP practitioners work. Please see systematic review (chapter two) for DMP evidence-based studies.

DMP will be presented separately, as it is the focus of this PhD. Following this, will be a discussion of the evidence to support why DMP is an appropriate intervention for autistic adults.

1.13 DMP and autism

DMP¹ is the youngest of the four arts therapy disciplines. First pioneered in the early twentieth century when Marion Chace pioneered the work in a psychiatric hospital in Washington, D.C. Chace intrigued doctors with her method to integrate self-expression through dance with mentally disturbed patients (Chaiklin and Schmais, 1993). DMP gained more recognition in 1966 when the American Dance Therapy Association was established with Chace taking the first presidential role. The Association for Dance Movement Psychotherapy UK (ADMP UK) was developed in 1982 and is continuing in growing the number of registered professional members. The field of DMP is defined by ADMP UK to:

“Recognise body movement as an implicit instrument of communication and expression. DMP is a relational process in which client(s) and therapist engage creatively using body movement and dance, as well as verbal and non-verbal reflection”.

(ADMP UK, 2021:1).

DMP has strong influences from dance as a healing art form, and since DMP Postgraduate Diploma and Master’s training courses were developed in the eighties, there has been stronger prominence placed on psychoanalytic and relational

¹ The profession’s title changed in 2007 from Dance Movement Therapy to Dance Movement Psychotherapy; therefore, DMT may be referred to in some texts and particularly research conducted internationally, as it is the common title to be used.

aspects of the work (Karkou and Sanderson, 2006). DMP practitioners in the UK now train to Masters level and embark on a minimum of two years training (ADMP UK, 2021).

DMP practitioners learn the core principles of practice including how to deliver sessions within a safe, contained environment (ADMP UK, 2022). The concept of holding originated from Winnicott who described a holding environment as a 'good enough' environment to grow and learn from and a lack of holding could result in emotional problems (Finlay, 2015). Similarly, the concept of emotional containment is a process in therapy where the therapist acts as a container to take in thoughts and feelings from the client (Greenwood, 2019). Through providing a safe, contained space, DMP has been evidenced to improve an individual's psychological mood, self-esteem, and awareness of self (Bunce, 2013).

The most available evidence in DMP shows an increase in the quality of life through decreasing symptoms of depression and anxiety; increases interpersonal skills; and psychomotor and cognitive skills are enhanced (Wengrower and Bendel-Rozow, 2021).

Psychomotor is defined as the use of motor skills and coordinating those (Changiz et al., 2021). One aspect of psychomotor is perception, which is the ability to add sensory information to motor activity (Hoque, 2017). The combination of motor and sensory is termed sensorymotor (Hofsten and Rosander, 2018). It is highlighted in the literature that autistic people can exhibit challenges with sensorymotor (Grohmann, 2017; Whyatt and Craig, 2013). To increase the neurological challenges of sensory-motor skills, DMP can increase awareness of the body and interoception (Hindi, 2012). Hindi (2012) further comments that the concept of

interoception is the processing of internal sensory stimuli, which is considered important for emotional processing and in developing self-concept.

Similar to the double empathy problem discussed earlier in this chapter, sensory motor issues could be due to an individual experiencing trauma opposed to there being a decrease of sensory motor skills for an autistic person. Odgen, Minton and Pain (2006) talk about how trauma can impact on sensory-motor skills through dissociation. Trauma can occur through various forms including abuse, violence, neglect, loss or separation (Hoover, 2015). Tustin (1986) talks of autistic children increasing a psychogenic avoidance response in order to cope with a traumatic consciousness of bodily separateness from the mother. There is a high prevalence of trauma for autistic adults and treatment of trauma is limited (Peterson, 2019). To address bodily based symptoms of trauma such as mobilisation of fight or flight or immobilising defences known as freeze/collapse/submission, a different approach to treatment may be needed such as a non-verbal sensory motor approach (Odgen, Minton and Pain (2006).

Autistic adults may experience difficulties with the cognitive features of alexithymia such as recognising and verbalising emotions opposed to a lack of awareness (Kinnaird, Steward and Tchanturia, 2019). Without the ability to verbalise or express feelings, an autistic adult may develop less vocational and adaptive living skills affecting their opportunities for independence (Politte et al., 2015). A DMP study reported that an individual who has communication problems due to their autism may also experience substantial problems for reciprocal verbal and emotional exchange (Engelhard and Vulcan, 2021).

Similarly to Polyvagal Theory (PVT), DMP uses processes such as grounding techniques, self-regulation and mirroring methods with the aim of increasing self-awareness, enhancing relationship to others and to cope better with environmental changes. In particular these coping strategies support the challenges faced with transition and change.

Grounding helps individuals 'connect with their physical and psychological reality' (Tord and Bräuninger, 2015: 16). The technique of grounding is where DMP takes precedence over contact to sensory-based needs within the environment and activates one or more of the senses (Aithal, 2020). The senses are felt through the body's nervous system response of the social engagement system (Porges, 2015). Therefore, grounding techniques would be highly appropriate for individuals who have autism to provide a method for self-regulation through the senses (Chavalier, 2015).

In addition to grounding techniques, self-regulation methods are used in the arts therapies and would be appropriate in supporting individuals who have autism (Haeyen and Noorthoorn, 2021). Self-regulation methods such as breathing exercises are commonly used to reduce stress (Perciavalle et al., 2019). Stressful situations which are common in individuals who have autism can be traumatic (Fuld, 2018). Trauma does not happen to our mind in the first instance; it occurs in the nervous system in the body (Porges, 2001). To recover from trauma we do not keep our bodies in a freeze, fight or flight sympathetic state, we attempt to socially engage in a place of safety, thus being in a parasympathetic state (Bridge, 2015). PVT was outlined as a developing model of neural regulation of the autonomic nervous system (Porges, 2006). The key part of the vagal system is to assess the surrounding

environment and to observe changes and to regulate our bodies if they go into the fight or flight state (Winter and Tyree, 2021).

Autistic people may face challenges with proprioception and understanding where their body is in relation to self, others and the surrounding environment (Blanche et al., 2012). The goal of DMP would be to develop body awareness and increase self-concept. With increasing somatic mechanisms including body awareness and self-concept, body sensations will be more notable during periods of dysregulation (Townshend and Caltabiano, 2019). Like symptoms of anxiety (rapid heartbeat, trembling, irregular breathing, frequent need to urinate) having an understanding of how the body is feeling is core to self-regulation and establishing a sense of safety. Breathing techniques, as well as grounding techniques, could be a useful coping strategy to manage dysregulation.

Dysregulation commonly happens for people who have autism (Cai et al., 2018). When deregulated, the individuals are in an immobilised state and the connection to self, relatedness to others, 'go offline' (Bridges, 2015). Establishing body awareness and using self-regulation methods could be a goal in DMP that helps an individual who has autism to connect with others and their surrounding environment (Fiene, Ireland and Brownlow, 2018). Fiene, Ireland and Brownlow's (2018) autism control trial used a Body Awareness Questionnaire (BAQ) so that individuals could self-report their perceptions of body awareness. The results highlighted a lack of body awareness and difficulty sensing internal bodily states (Fiene, Ireland and Brownlow, 2018). Building body awareness and using breathing techniques could be a supportive approach for autistic adults so that there are coping strategies to help with self-regulation, self-awareness and improved social interactions. Another method for

building body awareness and increasing relatedness, is through the clinical method of mirroring (Sengupta and Banerjee, 2020).

Mirroring involves connecting to a person's emotional self-expression seen in their movements (Tortora, 2006). A 'lack' of ToM may be a contributing factor of the triad of impairments in individuals who have autism (Rosello, Berenguer and Miranda, 2020). The triad of impairment discusses challenges with social interaction, social communication and social imagination (Naguy and Abdullah, 2019). For increasing the challenges with social interaction, social communication and social imagination, there needs to be a way of reaching oneself and others. The act of mirroring permits for self-connection and connection to others through the process of the body.

Individuals need validation and a sense of belonging in order to develop self-concept (Koenig, 2015). Mirroring enhances self-awareness and self-control through seeing the emotion felt reflected in movement or vocal sound by another (Koenig, 2015).

Within the arts therapies, mirroring is a core approach in the work with individuals who have autism. The ToM is based on sensing and thinking of our own behaviours while making connections to others or situations in the surrounding environment (Spaulding, 2014). Empathy is a multidimensional concept including cognitive and behavioural dimensions, and it is not always clear how it is measured (Clark, Robertson and Young, 2018). Mirroring the essential impulses of emotional states, giving rhythmic consistency, and to create a story about feelings, communicate empathy and understanding (Aldridge, 1996; Robarts, 2000; Wigram, 2000).

Therefore, mirroring is an approach that helps to develop the ToM in an individual who has autism (Sengupta and Banerjee, 2020). The embodied and non-verbal aspect of mirroring is an important aspect of DMP, which communicates understanding and empathy.

A systematic review was conducted in relation to DMP for children who have autism (Aithal, 2020). The systematic review reported seven studies that focused on DMP for children between the ages of 2-17 years (Athanasiadou and Karkou, 2017; Devereaux, 2017; Houghton and Beebe, 2016; Chiang, Chu and Lee, 2016; Samaritter, 2015; Wengrower, 2010; Hartshorn et al., 2001). The review discussed different techniques that were most used including 'mirroring and sensorimotor explorations creatively merged alongside the use of play techniques, rhythm and props' (Aithal, 2020: 103). This systematic review highlighted the many different techniques that DMP/T practitioners use internationally. Invaluable to gain more understanding of the varied practices used, there is no discussion on how these techniques are used for children who have autism compared to other populations. Moreover, the focus is about whether the intervention is efficacious opposed to looking at the common practices that are designed to support the varied needs for an autistic child .

Until the common DMP practices are explored, the efficacy cannot be reliably tested. Takahashi, Matsushima and Toshihiro's (2019) systematic review is an example of this. The review included studies where the practitioners ranged in age. Five of the seven studies (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2019; Wolf-Schein, Fisch and Cohen, 1985) included adult practitioners. The interventions are described, although three of the five use the same manualised approach (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2019). Koehne et al's. (2016) study also used a manualised approach although included different 'active ingredients' (Bartholomew Eldredge et al., 2016). Once more, the emphasis of this review is on efficacy, and it does not look at why a manualised DMP approach is appropriate for autistic adults.

Additionally, it is only a representation of what is tested in relation to research opposed to how DMP is truly practiced internationally. A gap in the literature can be seen. From the literature, DMP is efficacious for autistic adults (Edwards, 2015; Koch et al., 2015; Koehne et al., 2016; Hildlebrandt et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). The international practice that makes DMP efficacious needs to be researched to understand whether the DMP being practiced in research corresponds to what is commonly being practised outside of research.

Summary of background information

In this chapter a definition of autism was presented including a history of the classification and diagnostic criteria. The previous autism terms were synthesised and discussed in relation to the development of the current DSM diagnostic criteria. Autism and the spectrum of needs were discussed including the medicalisation of autism, as well as providing an understanding of comorbid conditions. Neurodiversity in autism was discussed, as well as contemporary treatment and intervention services that currently exists. The chapter concluded with a presentation of available evidence-based interventions; related to arts therapies and autism, and DMP and autism.

It is clear in the evidence that there is a high number of autistic adults and that this is increasing. Additionally, there is much need for appropriate interventions and support. There has been a focus in the evidence to explore the efficacy of arts therapies, including DMP, with autistic adults. What is missing in the existing DMP literature is a clear understanding of 'how' DMP is practiced internationally so the tools and mechanisms, including how practitioner beliefs and experiences influence their practice, can be understood and shared to support practice. Evidence-based

guidelines influenced by TiDier intervention checklist (Hoffmann et al., 2014), could inform DMP practice and give practitioners concrete information about the underlying mechanisms regarding 'how' to provide DMP treatment for autistic adults. To capture any available evidence and identify gaps, a systematic review of the literature on DMP studies with autistic adults is needed. The next chapter will present the review.

Chapter 2: Systematic review of the literature

The previous chapter highlighted the scarcity of literature in relation to DMP and autistic adults. This chapter will present the rationale for such a review, along with the methods and findings of a mixed-method systematic review conducted to examine how DMP practitioners work with autistic adults.

2.1 Rationale for the review

As identified in the previous section, it is noticeable, that much of the existing literature discussing DMP with autism refers mainly to children (Takahashi, Matsushima and Toshihiro, 2019). Wadsworth and Hackett (2014) state that children have been the most researched population in relation to DMP and autism. Studies are often conducted within the context of Special Education Needs (SEN) schools (see for example Karkou 2010) and, as Vulcan (2016) highlights, are mostly in the form of case studies with only a few exceptions (Hartshorn et al., 2001).

Although, there is a scarcity of literature available in relation to DMP and adults, empirical evidence relating to diverse types of support for adults is growing, leading to inclusion of related interventions in autism clinical guidelines. For example, the National Institute for Health and Clinical Excellence (NICE) guidelines for autistic adults (2016) include sensory integration as part of the response to the (Autism Act, 2009) to make better provision for the needs of autistic adults in the UK). Despite the recognition that sensory integration requires treatment for supporting people experiencing sensory differences Ayres (2005) expresses that fewer interventions are available for adolescents and adults. Mukhopadhyay (2000: 74) argues that Sensory Integration Therapy builds the awareness of one's body, as well as the position of the body in the space. When greater awareness is built with one's body, the body experiences a stronger connection to emotions (Pacchiera, 2003).

Therefore, DMP, a similar embodied intervention, can be a beneficial form of therapy for building self-awareness and body experiences with emotions for autistic adults. To date, DMP practice relies heavily on case descriptions and practitioner accounts with limited understanding of the impact and outcomes for DMP for autistic adults. Electronic databases were searched to identify existing studies. The closest existing study compared to this current study, was a systematic review conducted by Takahashi, Matsushima and Toshihiro (2019). However, Takahashi, Matsushima and Toshihiro (2019) systematic review only included the four adult-based studies, which were all conducted in Germany. The review also covered children. The focus of the review was the efficacy of each study opposed to understanding the ways in which DMP practitioners work. Without understanding the common practices and essential features of DMP for autistic adults, the efficacy of these common practices cannot be reliably tested.

2.2 Aim

The aim of the review was to examine practices commonly reported in DMP studies with adults with autism and associated outcomes.

2.3 Review questions

In order to address the aim of the review, the following review questions were investigated:

- 1). What is the current international evidence on how DMP practitioners work with autistic adults?
- 2) What outcomes are reported for autistic adults associated with DMP interventions?

The next section will describe in detail the methods used for the systematic review including the search strategy, screening and selection of the literature, quality appraisal and data extraction, and methods of synthesis.

2.4 Methods

This mixed-method review includes all study designs with empirical evidence conducted on DMP for autistic adults to capture all relevant evidence. The main aim of this review is to establish the available evidence of DMP practice, which can be hypothesised for future testing. The variation in the types of studies that are not reliant on RCTs, align with pragmatic philosophical principles, which sees the merits in the best method to answer the research question (Dewey, 2007).

This review is reported in accordance with PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-analyses) (Liberati et al., 2009). The protocol was published on PROSPERO (CRD registration number: CRD42018089237). The protocol development followed the PRISMA process, which organises and presents the processes involved in conducting a systematic review: identification of the literature, screening, eligibility and included studies.

2.4.1 Evidence selection criteria

A SPIO framework was used which included the study design, population, intervention and outcomes, which is commonly used in reviews where there is no comparative element (Richardson, Wilson and Nishikawa, 1995). After examining eligibility, the following inclusion and exclusion criteria was used.

1). **Study design**

Inclusion:

- Papers reporting empirical research of any study design.

Exclusion:

- Case reports, opinion, letters to the editor, any format without empirical data.

2). **Population**

Inclusion:

- Participants with a formal diagnosis of autism or who display traits of being autistic
- For group-based sessions at least 75% of participants have autism either with a formal diagnosis or stated by the author(s)
- Male and female participants aged 18 years and above
- For group-based session at least 75% of participants aged 18 years and above.

Exclusion:

- Where the participant(s) may appear to display traits of autism, but such reference is not made by the author
- Participant under the age of 18

3). **Intervention**

Inclusion:

- DMP sessions that are conducted by a qualified practitioner, or a practitioner

recognised by a relevant DMP professional association. If there is no qualification stated and there is no professional association in the country, the following needs to distinguish DMP from other dance disciplines:

- a). Engagement in dance movement sessions with a defined therapeutic goal
 - b). Encouragement of development and integration of new adaptive movement patterns together with the emotional experiences that accompany such change(s)
- DMP sessions including co-facilitation with other arts therapies

Exclusion:

- Recreational dance sessions, or other movement practices, where no therapeutic goal is defined.

4). **Outcomes**

Inclusion:

- Practitioner perceived and/or self-reported benefits for autistic adults
- Tools used in DMP practice with autistic adults
- Descriptions of 'how' DMP practitioners practice with autistic adults and their underlying mechanisms

2.4.2 Search strategy

A search strategy was developed based on the SPIO with key terms and key databases identified. The search involved running separately and then combined

steps 1 AND 2 (see table 1). There was no date limit on the searches to ensure maximum capture of available evidence. The only restriction was for studies to be in the English language. The searches were run in January 2018 and updated in May 2021 in PsycINFO, PsycARTICLE, ScienceDirect, CINAHL, ERIC, Medline and Cochrane. Hand searches were conducted at Bournemouth University, as well as searches in relevant journal databases. Grey literature was not searched as non-empirical study designs were excluded.

Table 1 Search terms

<p>Step one:</p> <p>Autis* OR Asperger* OR Pervasive Developmental Disorder*</p> <p>AND</p> <p>Step two:</p> <p>Dance Movement Psychotherap* OR Dance Movement Therap*</p>

2.4.3 Screening and evidence selection process

Studies were identified through a screening process, and this is reported following the PRISMA reporting framework. All the studies were uploaded to RefWorks, compiling a list of references from the seven databases accessed. Studies were then de-duplicated, and a record was made of how many and from what databases they were extracted. The titles and abstracts of studies were screened for eligibility by two reviewers (CM, ZM). The full texts were retrieved and read, and the inclusion/exclusion criteria used to determine whether the study should be included. Reasons for exclusion at this stage are reported in the PRISMA flowchart. One study required contact with the author to clarify background training to determine whether it met the inclusion criteria. In the case of one piece of missing data, an attempt to

contact the authors to request an original report was made, although the contact was not obtainable.

2.4.4 Data extraction and quality assurance

An extraction sheet was created to collate data from the studies for three elements. First, data was extracted for certain characteristics of the studies and autistic adults from each study under the following sub-headings:

- Number of participants
- Age
- Gender
- Level of functioning
- Type of clinical setting
- Country
- Type of study design

Then the TiDier checklist (Hoffmann et al., 2014) headings were used to extract data across the studies to examine the specific component of the intervention employed by DMP practitioners and to answer the research questions. The TiDier checklist categories that influenced the data extraction included:

- Brief name – provide the name that describes the intervention
- Why – description of the theory essential to the intervention
- What – 1). Materials such as a description of any physical or informational materials used in the intervention
2). Procedures such as describing each of the procedures, activities, and/or processes in the intervention
- Who – Expertise, background and specific training given

- How – description of the mode of delivery (individual or group-based work) and clinical methods
- Where – description of the location, where the intervention occurred, including any necessary infrastructure or relevant features
- When and how much – Length of therapy session, frequency and duration

Finally, the reported outcomes including statistical and descriptive results were extracted from each of the studies.

2.5 Quality assessment strategy

The qualitative studies were assessed for trustworthiness (Cooke, Mills and Lavender, 2010) and the qualitative methods used. The Cooke, Mills and Lavender (2010) tool assessed the credibility, transferability, dependability and/or confirmability of the qualitative studies. For mixed methods studies, the qualitative method was also assessed using the Cooke, Mills and Lavender (2010) tool. For quantitative studies, the risk of bias was graded using the Higgins and Green (2011) tool. The risk of bias assessment included grading the bias domain (selection/performance/detection/attrition/reporting/other), source of bias, support for judgment, and a review of the author's judgement (assessed as low, unclear or high risk of bias) (Higgins and Green, 2011). Once more, the mixed methods studies used the Higgins and Green (2011) tool for the quantitative method.

2.6 Results

A systematic search ran in January 2018 resulted in 85 results for the inclusion from the databases and other sources (see table 2).

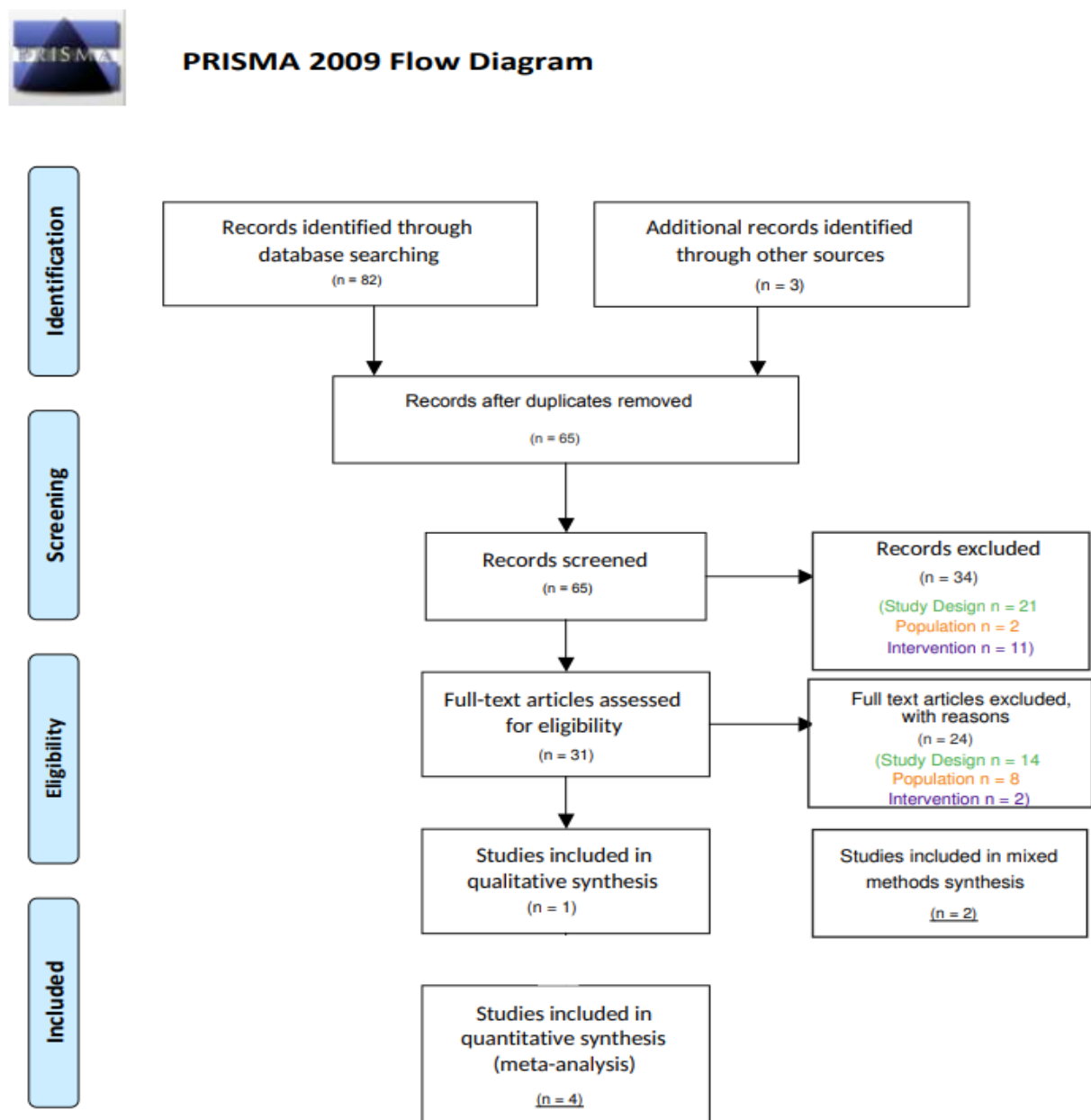
Table 2: Number of results against database searches

Databases	Number of records (search formula step 1 AND 2)
ERIC	8
Medline	6
CINAHL	16
PsychINFO	35
Science Direct	11
PsychARTICLE	6
Handpicked searches from Bournemouth University	3
Total	85

There were 20 studies removed by the end of the deduplication process, resulting in 65 studies screened by two reviewers using the inclusion/exclusion criteria to eliminate bias. While it is not common to included reasons for exclusion at the initial screening stage, due to the manageable number of studies to screen this has been reported. Reasons for exclusion were agreed by both parties on the basis of: study design, population or intervention, using that precise hierarchical order. If a study was to be included for the full text screening stage, this was recorded and the full text required stage. Of the 65 studies, 34 were excluded on the basis of: study design (21), population (2) and intervention (11). After reading the full text for each of the remaining 31 studies a further 24 were excluded on the basis of: study design (14), population (8) and intervention (2). On a few occasions there were studies that were excluded for more than one basis (study design; population; intervention); however, the reason for exclusion was documented using the same hierarchy as before. A total of seven studies were included; one qualitative study (Edwards, 2015), four quantitative studies (Hildebrandt et al., 2016; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2016) and two mixed

methods studies (Koch et al., 2015; Wadsworth and Hackett, 2014). The systematic search was re-run in May 2021. From the up-to-date search, one study met the eligibility criteria following review by both reviewers utilising the original criteria. This study was added to the quantitative methods category resulting in a total number of eight included studies for the systematic review. To ensure transparent reporting a flowchart is included below to report the screening stages (see Figure 1).

Figure 1: PRISMA flow diagram used to structure and report eligibility process



2.7 Overview of included studies

The seven studies included in the review (Edwards, 2015; Koch et al., 2015; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014; Hildebrandt et al., 2016; Koehne et al., 2016) are summarised in table

3. In relation to the research questions outlined, all seven studies discussed the interventions utilised.

The seven study dates range from 2013-2018. The oldest being 2013 (Mateos-Moreno and Atencia-Dona, 2013) and the most current being 2018 (Mastrominico et al., 2018). The number of practitioners vary across the seven studies with a single practitioner in Wadsworth and Hackett's (2014) study and the largest sample size seen in Hildebrandt et al's. (2016) study. The sample size of 78 participants in Hildebrandt et al's. (2016) encompassed 52 participants in the intervention group and 26 participating in the control group. The second largest sample size of 57 practitioners was seen in Mastrominico et al's. (2018) study with 35 in the intervention group and 22 in the control group. Koehne et al's. (2016) study had a sample size of 55 practitioners with 27 being the treatment group and 24 in the control group. Two practitioners from each group declined before baseline testing. The study cohorts that were largest were all conducted in Germany. The studies took place in various environments including: rehabilitation centre, hospitals, therapy training centres and a care centre. Edwards (2015) was the only study that took place in the community.

2.8 Data extraction

To understand how DMP practitioners work with autistic adults in the available research literature, it is important to know the characteristics within each study, to support the context for the interventions. The study characteristics extracted from the seven studies are: number of practitioners; age; gender; 'level of functioning'; type of clinical setting; country and type of study.

Table 3: Study characteristics

(Key: QUAN = Quantitative research study; QUAL = Qualitative research study)

Author	Number of practitioners	Age	Gender	'Level of functioning'	Type of clinical setting	Country	Type of study
Edwards, 2015	N = 4	35-60 years	3 males 1 female	Asperger's Syndrome	Community-based	UK	QUAL case study
Hildebrandt et al., 2016	N = 78 • Intervention = 52 • Control group = 26 The assignment ratio of treatment and control group was intended to be 2:1	14-65 years	63 males 12 females No data was provided on gender for 3 practitioners	High functioning autism	Rehabilitation centre	Germany	QUAN randomised control trial
Koch et al., 2015	N = 31 • Intervention = 16 • Control groups = 15	16-47 years	23 males 8 females	High functioning autism/Asperger's Syndrome	Rehabilitation/education centre	Germany	Mixed methods non-randomised control trial
Koehne et al., 2016	N = 55 • Intervention = 27 • Control group = 24 2 practitioners from each group declined before baseline testing	18+ years	Gender is not disclosed	High functioning autism	Hospital	Germany	QUAN non-randomised controlled parallel-group trial

Author	Number of practitioners	Age	Gender	'Level of functioning'	Type of clinical setting	Country	Type of study
Mastrominico et al., 2018	N = 57 • Intervention = 35 • Control group = 22	14-52 years	44 males 12 females No data was provided on gender for 1 practitioner	No details regarding level of functioning	Training and therapy centre	Germany	QUAN randomised control trial
Mateos-Moreno and Atencia-Dona, 2013	N = 16 • Intervention = 8 • Control group = 8	18+ with the average age of 25	16 males	Severe autism	Care centre	Spain	QUAN non-randomised control trial
Wadsworth and Hackett, 2014	N = 1	23 years	1 male	No details regarding level of functioning	Hospital	UK	Mixed methods single-case study
Summary							
Year range of included studies: 2013-2018	N = 247	A range of ages from 14 years old + (At least 75% of the practitioners in each study were 18+). It was not possible to determine the distribution of ages in detail.	150 males 33 females Gender not disclosed in three studies (Mastrominico et al., 2018; Hildebrandt et al., 2016; Koehne et al., 2016).	High functioning/Asperger Syndrome is most common across the seven studies	Community based (1); rehabilitation centre (2); training and therapy centre (1); care centre (1); Hospital (2)	German studies (4); English studies (2); Spanish study (1)	QUAN (4); mixed methods (2); QUAL (1)

Across the seven studies that met the eligibility criteria for examination, there were a total of 242 practitioners. The age of the practitioners ranged between 14-65. At least 75% of the practitioners in each study were 18+. It was not possible to determine the distribution of ages in detail. In four of the seven studies the groups were mixed gender (Edwards, 2015; Koch et al., 2014; Mastrominico et al., 2018; Hildebrandt et al., 2016); however, there was more prominence in males attending the groups in comparison to females. Two studies only had male attendees (Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett). The gender was not disclosed in Koehne et al's. (2016) study. Across the seven studies, 'high functioning autism/Asperger Syndrome' was most common and only one study detailed a 'severe' level of functioning (Mateos-Moreno and Atencia-Dona, 2013). Four out of the seven studies were conducted in various locations in Germany (Koch et al., 2016; Mastrominico et al., 2018; Hildebrandt et al., 2016; Koehne et al., 2016). The most common type of study was a quantitative trial, however, there is equal number of randomised trials (Mastrominico et al., 2018; Hildebrandt et al., 2016) to non-randomised trials (Mateos-Moreno and Atencia-Dona, 2013; Koehne et al., 2016). Edwards' (2015) is the only qualitative study with the remaining two studies using mixed methods (Koch et al., 2015; Wadsworth and Hackett, 2014).

2.9 Interventions

To answer the research question of how DMP practitioners work with autistic adults, the specific aspects of the intervention are discussed in this section.

The TiDier checklist (Hoffman et al., 2014) was used to inform the areas of the extraction form which were populated with the data from the studies. This included giving a description of the intervention name used in the study. Following this, the

theory essential to the intervention (why) was extracted, as well as the materials used in the intervention such as physical or informational materials. Data that detailed the structure (what) and expertise, background and specific training given (who) was extracted. The mode of delivery and clinical methods (how), along with a description of the type(s) of location(s) where the intervention occurred was detailed. The length of therapy session, frequency and duration (when and how much) was also included. Table 4 summarises extracted information relating to the intervention.

Table 4: Description of the interventions (Why and What) (based on the TiDier Checklist Headings (Hoffmann et al, 2014))

Author	Name	Why	What	
		Theory essential to the intervention	Materials including physical or informational materials used in the intervention	Structure
Edwards, 2015	Group Dance Movement Psychotherapy	<p>In the literature the following are included: developmental theory including the Strange Situation (Ainsworth) and Holding Environment (Winnicott)</p> <p>The intervention is described as: sensory integration with a focus on hyper and hypo sensitivities</p>	<p>Sensory props including: bright colour glitter balls, scented sensory puffa balls and silks</p> <p>A range of music</p>	Unstructured
Hildebrandt et al., 2016	Manualised Dance Movement Therapy	The intervention is described as including a client-centred embodiment approach underpinned by a phenomenological perspective	A range of music to be used for Baum circles	Structured: (a) Warm- up consisting of a Chace-Circle (10 minutes) (b) Dyadic movement (15-20 minutes) (c) Baum circle (20 minutes) (d) Verbal processing (10-15 minutes)
Koch et al., 2015	Manualised Dance Movement Therapy-based mirroring	<p>In the literature the following are included: Developmental theories</p> <p>The intervention is described as being influenced by: embodiment approaches and grounding reasoning in Interaction theory (Gallagher, 2004), as well as the Individual-Interactional Model (Mundy et al)</p>	A range of music to be used for Baum circles	Structured: (a) Warm- up consisting of a Chace-Circle (10 minutes) (b) Dyadic movement (15-20 minutes) (c) Baum circle (20 minutes) (d) Verbal processing (10-15 minutes)

Author	Name	Why	What	
		Theory essential to the intervention	Materials including physical or informational materials used in the intervention	Structure
Koehne et al., 2016	Manualised Dance Movement Therapy	Imitation and synchronisation approach	<p>A range of music used</p> <p>Feedback and opportunity to share movement experience</p> <p>Homework assignment</p> <p>Ropes to be used in place of using direct physical touch</p>	Structured
Mastrominico et al., 2018	Manualised Dance Movement Therapy	Embodiment approach	A range of music to be used for Baum circles	<p>Structured:</p> <p>(a) Warm- up consisting of a Chace-Circle (10 minutes)</p> <p>(b) Dyadic movement (15-20 minutes)</p> <p>(c) Baum circle (20 minutes)</p> <p>(d) Verbal processing (10-15 minutes)</p>
Mateos-Moreno and Atencia-Dona, 2013	Combined Music Therapy and Dance Movement Therapy	A plurisensory approach employed based on the practice of Dance Movement Therapy and Music Therapy	<p>Dolls</p> <p>Balls to use for massaging classmates</p> <p>To imagine and simulate situations including role-play of fairy tales</p> <p>A range of music used</p> <p>Drawing materials to draw images and write letters</p> <p>Hoops and elastic straps</p>	<p>Semi-structured:</p> <p>Massage</p> <p>Imagine and simulate situations</p> <p>Imitating or guessing emotions</p> <p>Movement exploration on the ground</p> <p>Role-play</p> <p>Moving individually, in pairs and as a whole group</p> <p>Session time was split approximately into halves for MT/DMT</p>

Author	Name	Why	What	
		Theory essential to the intervention	Materials including physical or informational materials used in the intervention	Structure
Wadsworth and Hackett, 2014	Dance Movement Psychotherapy	<p>In the literature the following are included:</p> <p>Social stories model (Gray, 2010)</p> <p>The intervention is described as including a structured narrative approach</p>	<ul style="list-style-type: none"> • Emotion symbols • Props including silk scarf, ribbon and stretchy fabric <p>Sensory props and pictures offered as a stimuli</p>	<p>Structured:</p> <p>First stage: Warm-up</p> <p>Second stage: Mirroring activities</p> <p>Third stage: Six-part story structured narrative including:</p> <p>(1) A character (2) A place or land</p> <p>(3) A task</p> <p>(4) An obstacle</p> <p>(5) Some help to overcome the obstacle</p> <p>(6) An outcome or ending</p>
Summary	Manualised Dance Movement Therapy is the most common name	<p>Developmental theories and embodiment theories are most commonly identified in the literature</p> <p>Intervention:</p> <p>A variety of theories influence the intervention, although embodiment approaches tend to be most common</p>	<p>Music was the most common material used in the intervention and seen in seven of the studies</p> <p>Props were the next most common material used in the intervention and seen in three of the studies</p>	<p>Structured sessions were most common seen in five of the studies</p> <p>The inclusion of a semi-structure was seen in one study</p> <p>Unstructured structure was seen in one study</p>

Table 5: Description of the interventions (Who, How, Where, When and How much)

Author	Who	How		Where	When and how much
	Expertise, background and specific training given	Mode of delivery	Clinical methods	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features	Length of therapy session, frequency and duration of therapy
Edwards, 2015	<p>Dance Movement Psychotherapist (UK) with experience of working with adults in Secondary Mental Health community services and as part of the Later Life Therapies inpatient team.</p> <p>Co-therapist who is a trained Art Therapist</p>	Group session	<p>Sensory perceptions explored and relaxation exercises</p> <p>Reflective/ reflexive verbal feedback co-created between the individuals and therapist</p>	Specialist ASD team providing for adults living in the community	<p>Length of session not detailed</p> <p>Weekly</p> <p>8 weeks</p>
Hildebrandt et al., 2016	<p>Two female Dance Movement Therapists facilitated six groups across three institutions (one conducting four intervention groups in one setting and one conducting two intervention groups, one in each of two settings)</p> <p>The Dance Movement Therapist's background experience has not been disclosed</p> <p>Each group was accompanied by a student of DMT at SRH University Heidelberg as co-therapist and/or a psychology student from the University of Heidelberg, not previously known to the practitioners (10 female and two male students altogether)</p>	Group session	<p>Mirroring exercises:</p> <ul style="list-style-type: none"> • Chace-Circle • Dyadic movement • Baum circle <p>Verbal processing (10-15 minutes)</p>	Three therapeutic or rehabilitative facilities specialising in ASD	<p>1 hour</p> <p>Weekly</p> <p>10 weeks</p>

Author	Who	How		Where	When and how much
	Expertise, background and specific training given	Mode of delivery	Clinical methods	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features	Length of therapy session, frequency and duration of therapy
Koch et al., 2015	<p>Dance Movement Therapist</p> <p>Primary co-therapist who has a psychology background</p> <p>Assistants who were all psychology students. The number of assistants have not been disclosed</p>	Group session	<p>Mirroring exercises:</p> <ul style="list-style-type: none"> • Chace-circle • Dyadic movement • Baum circle <p>Verbal processing</p>	Rehabilitation institution of secondary education Multiple training and therapy centres	<p>1 hour</p> <p>Weekly</p> <p>7 Weeks</p>
Koehne et al., 2016	<p>Dance Movement Therapy Educator</p> <p>Child and adolescent Psychiatrist</p> <p>The background experience has not been disclosed</p>	Group session	<p>Brief verbal exchange and discussion of homework task</p> <p>Warm up including: joint movement ritual</p> <p>Movement expression and perception</p> <p>Main part including: interactive imitation and synchronisation tasks in dyads, small groups and the entire group</p> <p>Cool-down including: Brief final verbal exchange and assignment of homework</p>	ASD outpatient clinic	<p>1 ½ hour</p> <p>Weekly</p> <p>10 weeks</p>

Author	Who	How		Where	When and how much
	Expertise, background and specific training given	Mode of delivery	Clinical methods	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features	Length of therapy session, frequency and duration of therapy
Mastrominico et al., 2018	<p>Two Dance Movement Therapists facilitated six groups across three institutions</p> <p>Prior to the first session, both DMT practitioners received training on how to work with the manual</p> <p>Two co-therapists supported the groups with either a background as a DMT or psychology student at the University of Heidelberg</p>	Group session	<p>Mirroring exercises: Chace-Circle</p> <p>Dyadic movement</p> <p>Baum circle</p> <p>Verbal processing</p>	Multiple training and therapy centres	<p>1 hour</p> <p>Weekly</p> <p>10 weeks</p>
Mateos-Moreno and Atencia-Dona, 2013	<p>One Dance Movement Therapist</p> <p>One Music Therapist</p> <p>Three assistants</p> <p>No background information given for the assistants</p> <p>The Dance Movement Therapist and Music Therapist's background experience has not been disclosed</p>	Group session	<p>Opening ritual repeated each session</p> <p>Activities labelled with invented names</p> <p>Turn-taking</p> <p>Imagining and simulating situations, imitating or guess emotions</p> <p>Role-play in different situations taken for tales that the service users were familiar with</p>	Care centre	<p>Length of session not detailed</p> <p>Twice per week</p> <p>17 weeks</p>

Author	Who	How		Where	When and how much
	Expertise, background and specific training given	Mode of delivery	Clinical methods	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features	Length of therapy session, frequency and duration of therapy
Wadsworth and Hackett, 2014	Dance Movement Psychotherapist (UK)	Individual session	<p>Greeting which included choosing a picture relating to an emotion</p> <p>Warm-up which focused on body integration and breath work</p> <p>Mirroring activities</p> <p>Six-part story narrative approach</p> <p>Relaxation-based approach led by the therapist</p>	NHS hospital unit	<p>45 minutes</p> <p>Weekly</p> <p>7 weeks</p>
Summary	<p>Dance Movement Therapists solely conducting sessions in five studies</p> <p>Two studies co-facilitated by an art or music therapist</p> <p>Assistants including research assistants are seen in three studies</p>	<p>Groups were most common seen in six studies</p> <p>One study conducted an individual session</p>	<p>Mirroring exercises were most commonly used seen in four studies</p> <p>Verbal processing was seen in all the four studies that used a manualised DMP approach</p>	<p>A variety of locations were seen</p> <p>Rehabilitation (2) and hospital (2) appeared the most common settings where sessions took place</p>	<p>The most common length of was 1 hour</p> <p>The most common frequency was once per week</p> <p>A 10 week duration was most common</p>

2.9.1 Name of intervention

As seen in table 4, the most common intervention stated was a manualised DMP approach. Koch et al. (2015); Hildebrandt et al. (2016) and Mastrominico et al. (2018) use an identical manualised DMP approach including three mirroring exercises and a verbal processing element. Koehne et al. (2016) uses a manualised approach and although the content is similar, there are some variations. Opposed to a mirroring approach, Koehne et al. (2016) discusses using imitation and synchronisation, which increased rapport, feelings of closeness in the relationship (Wiltermuth and Heath, 2008). The remaining three studies use the name Dance Movement Therapy with Wadsworth and Hackett (2014) and Edwards (2015) adopting the UK title 'psychotherapy'. Edwards (2015) also includes the mode of delivery in the intervention name 'Group dance movement Psychotherapy'.

2.9.2 Theory essential to the intervention (Why)

Across the seven studies there is no specific mention of the underlying philosophy such as: person-centred, psychodynamic, social constructivist. There are some indications that person-centred principles are employed such as empathy (Moudatsou et al., 2020). However, as Koch et al. (2015) states unconscious mirroring and attunement, which can lead to an increase in empathy, could be developmental and part of the sharing of emotional states (Kestenberg, 1995; Stern, 1985). The unconscious process of mirroring links to a Jungian's psychodynamic concept of the active imagination (Williams, 2019). The active imagination is a term used to bridge the gap between unconscious and consciousness. However, across the seven studies there is no explicit mention to a particular philosophical influence.

Aside from the philosophical aspect of theory, there appears to be much variation in the theory that relates to the literature and the theory essential to the intervention. However, the most common theory in relation to the intervention; seen in three of the four German studies, (Koch et al., 2015; Hildebrandt et al., 2016; Mastrominico et al., 2018) is the use of an embodiment approach. Mundy et al. (2010); Gallagher (2004); Gallese (2006) state that an embodiment approach, which is classed as body-orientated treatment approach to autism is necessary. The embodiment approach supports the idea that due to developmental and behavioural predominance the non-verbal interaction components challenged in autism are at the core of the 'impairment' and need to be directly addressed in autism therapy (Koch et al., 2015). The embodiment theory goes in hand with developmental theories, which has been highlighted in the literature of two of the included studies (Edwards, 2014; Koch et al., 2016) in that body-based sensory development is important for future developmental processes (Winnicott, 1960).

2.9.3 Materials including physical or informational materials used in the intervention (What)

Music was the most common informational material used and seen in six of the seven studies. Three of the seven studies that include music used a manualised approach, which incorporated a Baum-circle method (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). The three remaining studies included using a range of music, however specific details were not disclosed. The studies that do not use a manualised approach incorporated props in the sessions. These include: balls, fabric, scarves and sensory based props. Edwards' (2015) study focuses specifically on sensory sensitivities and uses props to help with self-regulation and self-expression. Edwards (2015) states that this helped practitioners to communicate non-verbally when it was difficult to verbalise feelings. The props acted as a

transitional object (Winnicott, 1953). The six studies in this review aside from Edwards (2015) discuss the purpose for using props, although there is no mention in regard to the sensory needs.

2.9.4 Structure (What)

Five of the studies utilise structure within their sessions (Koch et al., 2015; Mastrominico et al., 2018; Wadsworth and Hackett, 2014; Hildebrandt et al., 2016; Koehne et al., 2016). Three of the manualised DMP approaches used identical content and prescribed time durations for each part of the content. The three studies included three defined mirroring exercises and a verbal processing section. Similarly, Wadsworth and Hackett (2014) and Koehne et al. (2016) used a structure, although the content varied slightly and was not time prescribed. The structure did however include mirroring exercises and an opening and closing ritual, which are consistently seen in all the structured approaches. There was an exception of one study being semi-structured (Mateos-Moreno and Atencia-Dona, 2013). Similarly to the structured approach, an opening and closing ritual was detailed, as well as the inclusion of dyads. The main difference noted was that the session was split into a DMP section and a music therapy section. Edwards (2015) is the only study that does not follow a structure and there is more of an emphasis on sensory perceptions, reflective/reflexive processing and relaxation techniques.

2.9.5 Expertise, background and specific training given (Who)

The interventions seen in all seven studies were designed by either a DMP practitioner, DMP practitioner and music therapist and a DMP practitioner with the input from a clinical psychologist. The delivery in some cases varied with sometimes consisting of assistants including research assistants. On two occasions an arts

therapist such as art or music co-facilitated the session as seen in Edwards (2015) and Mateos-Moreno and Antenciadonas' (2016) studies. It is not discussed how the variation in background and expertise may impact on the results.

2.9.6 Mode of delivery (How)

Six of the studies delivered group-based sessions with the only exception of Wadsworth and Hackett (2014) who conducted a session on an individual basis. The groups varied in size and there was no discussion on how the number of practitioners may have impacted on the quality of the intervention received. For instance, when the practitioners engaged in dyadic interaction, Koch et al. (2015) mentioned that there were co-therapists that paired with the practitioners. This may have showed a difference in the level of empathy compared to bigger groups such as Hildebrandt et al. (2016) where the practitioners paired with a peer in the group compared to an assistant due to the sample size being much bigger.

2.9.7 Clinical methods (How)

Various clinical methods were used within DMP sessions as Table 4 shows; however, five of the seven studies included a mirroring approach. Mirroring involves connecting to a person's emotional self-expression seen in their movements (Tortora, 2009). Three studies used a manualised approach which includes three mirroring exercises: Chace-circle, dyadic mirroring and Baum-circles. The first of the mirroring exercises that the manualised approaches use; is a Chace-circle (Chaiklin and Schmais, 1993). A Chace-circle, as Koch et al. (2016: 341) described, is "a loose circle formation where the therapist picks up elements of each practitioner and asks the group to try them out". The second mirroring exercise used in the manualised approach is a Baum-circle. Baum-circles are defined as a clinical

method where a group member is invited to select a piece of music and the rest of the group are encouraged to follow the leader and mirror the leader's movements (Koch and Hervey, 2012). The third mirroring exercise involves a dyadic movement part. The dyadic movement involves alternating between following and leading and after each having a turn to move freely, but staying in contact with each other (Koch et al., 2015). Even if the individual and their partner are at opposite sides of the room, another process is about mirroring the quality of each other's movements. Each mirroring exercise has a prescribed time duration for each exercise such as the Chace-Circle (10 minutes), dyadic movement (15-20 minutes) and Baum-circle (20 minutes). Mateos-Moreno and Atencia-Dona (2013) and Wadsworth and Hackett (2014) include mirroring activities although there is less structure, no prescribed time duration and there is an inclusion of props. Three of the studies (Koch et al., 2015; Hildebrandt et al., 2016; Mastrominico et al., 2018) that used a manualised approach, emphasised the mirroring intervention for 50 out of the 60 minutes of the session. Whereas other studies included other clinical methods alongside mirroring in their sessions such as activities labelled with invented names (Mateos-Moreno and Atencia-Dona, 2013) and six-part story (Wadsworth and Hackett, 2014). Edwards (2015), Mateos-Moreno and Atencia-Dona (2013) and Koehne et al. (2016) do not mention using any form of mirroring within the intervention used.

In three of the manualised approaches (Koch et al., 2015; Hildebrandt et al., 2016; Mastrominico et al., 2018), Baum-circles were used within DMP sessions.

Additionally, dyadic movement is used in four of the studies (Koch et al., 2015; Koehne et al., 2016; Hildebrandt et al., 2016; Mastrominico et al., 2018). Three manualised studies use a structured 15/20 minutes of dyadic movement; whereas Koehne et al. (2016) uses synchronisation tasks in dyads, small group and with the

whole group. What is different in Koehne et al's. (2016) manualised approach, which includes dyads, is there is less emphasis on a prescribed time. Mateos-Moreno and Atencia-Dona (2013) discusses the inclusion of turn-taking, although the language dyad is not specifically used. Additionally, there is less structure and there is no prescribed time duration for including this clinical method within a session. Outside of the manualised approaches other clinical methods were used such as time for relaxation.

Relaxation exercises are used in Edwards (2015) and Wadsworth and Hackett's study (2014). Wadsworth and Hackett (2014) use a sponge ball to squeeze and relax to help connect with breath support (Wadsworth and Hackett, 2014). Breath support involves the practitioner placing their hands on their chest and closing eyes to help connect with the breath (Hackney, 1998). Wadsworth and Hackett (2014) further state that relaxation is considered to facilitate physical coping. Koehne et al's. (2016) study does not specifically state that relaxation exercises were used, however, a cool down is used in the closure process of the session. Alongside relaxation-based methods, creative mediums such as story have been used in these sessions.

Wadsworth and Hackett (2014) use a six-part story method as a clinical method in DMP sessions (Lahad and Ayalon, 1993). A six-part story method is a narrative approach, which supports with coping strategies and resilience in people who experience ongoing stress (Lahad and Ayalon, 1993). Mateos-Moreno and Atencia-Dona (2013) use roleplay, which also includes story and narratives within its approach. Wadsworth and Hackett (2014) and Mateos-Moreno and Atencia-Dona's (2013) studies share the commonality of a narrative-based approach through story or roleplay.

The last clinical method identified in the studies was verbal processing. This is another common practice seen in the manualised approaches. This involves reflecting opinions and feelings about the session by the practitioners and it is moderated by the therapist (Koch et al., 2015). The manualised approach includes 10/15 minutes of verbal processing whereas Edwards (2015) verbal feedback was at the end of each session although not time structured. Koehne et al. (2016) also included a brief verbal exchange at the end of the session. Therefore, five out of the seven studies included this intervention within the DMP process.

2.9.8 Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features (Where)

Four of the seven studies were conducted in Germany (Koch et al., 2015; Hildebrandt et al., 2016; Mastrominico et al., 2018; Koehne et al., 2016). The most significant feature is that all four studies were manualised. Koch et al. (2016); Hildebrandt et al. (2016) and Mastrominico et al. (2018) use a prescribed manual where there are four components to the session (mirroring exercises: Chace-circle, Baum-circle, dyadic movement and verbal processing). Each component was throughout time allocated; whereas Koehne et al's. (2016) intervention is manualised, although without the exact same components and with no time allocation. Koch et al. (2015) and Hildebrandt et al. (2016) share the commonality of conducting sessions in a rehabilitation setting. Koehne et al. (2016) and Mastrominico et al. (2018) differ from the other two German-based studies as Koehne et al. (2016) is conducted within a hospital setting and Mastrominico et al's. (2018) sessions took place in a therapy and training centre.

2.9.9 Length of therapy session, frequency and duration of therapy (When and how much)

The most common session length was one hour with the frequency of one session per week over a ten-week period. Five of the seven studies were structured and three of those incorporated a manualised approach. Groups were the most common mode of delivery, although practitioners also conducted individual based work.

2.10 Outcomes

Outcomes are discussed below which focus on the objectives of perceived and/or self-reported benefits for adults with autism. Following this, tools used in DMP practice with adults with autism will be presented, and then descriptions of 'how' DMP practitioners practice with adults with autism and their underlying mechanisms.

Table 6: Qualitative findings and quantitative outcomes

Author	Outcome methods	Qualitative findings	Quantitative outcomes
Edwards, 2015	<ul style="list-style-type: none"> • Movement observations by the therapist • Verbal feedback from the practitioners was noted at the end of each session • The therapists' reflexive journals (Edwards, 2015: 11-14) 	<p>Findings from this study show that all four practitioners were experiencing sensory differences which influenced how they interacted. The areas that improved were:</p> <ol style="list-style-type: none"> 1) Adjustment to each other's sensory needs 2) Awareness of each other's emotional and mental state 3) Feeling of security and enough to share and connect 4) Expression of the difficulties faced in mismatching in communication when relating to people outside of the DMP group. <p>(Edwards, 2015: 11-14)</p>	N/A
Hildebrandt et al., 2016	<p>Questionnaires (Scale for the Assessment of Negative Symptoms – SANS) prior to and after the intervention period. (Hildebrandt et al., 2016)</p>	N/A	<p>Improved</p> <ol style="list-style-type: none"> 1) Negative symptoms Were reduced in the treatment group ($F(1, 41) = 2.99, p = 0.09$). 2) The main effect for Group was marginally significant ($F(1, 41) = 2.95, p = 0.09$) (Hildebrandt et al., 2016)

Author	Outcome methods	Qualitative findings	Quantitative outcomes
Koch et al., 2015	<ul style="list-style-type: none"> Self-report scales (Heidelberger State Inventory), used for intervention and control groups as the pre and post-test, supplemented by additional questions about practitioners' experiences during the sessions. Observations of mirroring modalities (Koch et al. 2016:344-346) 	<p>Observations of mirroring modalities</p> <p>Improved</p> <ol style="list-style-type: none"> 1) Mirroring for about half of the dyadic time with a constant ration of 70:30 2) 15 out of 16 practitioners used mostly modal mirroring over all sessions 3) The ratio of leading and following was exactly 50:50 across all practitioners; all practitioners were able to do both 4) Fun improved from $M = 3.63$ ($SD = .74$) in session 2 to $M = 3.91$ ($SD = 1.22$) in the sixth session on a scale from 1 to 5. <p>Observational results of the mirroring modalities did not yield the expected progression toward more counter movement as an indicator of perspective taking in movement. (Koch et al. 2016:344-346)</p>	<p>Improved</p> <ol style="list-style-type: none"> 1) Psychological wellbeing compared to control group $F(1, 27) = 2.95$, $p = .049$, $d = .63$ 2) Body awareness compared to control group $F(1, 29) = 2.95$, $p = .049$, $d = .62$ 3) Self-awareness compared to control group $F(1, 28) = 3.93$, $p = .029$, $d = .72$ 4) Social skills compared to control group $F(1, 29) = 3.49$, $p = .036$, $d = .67$ <p>No significant clinical change seen in relation to empathy; $F(1, 27) = 1.26$, $p = .271$</p> <p>Age did not have an impact on any of the independent variables</p> <p>Intercorrelations</p> <ol style="list-style-type: none"> 1) The highest correlation was body-awareness and self-distinction other ($r = .60$) 2) Body awareness and psychological wellbeing were positively related to empathy ($r = .38$ and $r = .42$) <p>Evaluation of intervention (post-test questionnaire)</p> <ol style="list-style-type: none"> 1) If it was an possibility, 13 practitioners would like to continue with the therapy 2) Fun during sessions was 4.56 ($SD = 1.6$, range 1–6) (Koch et al. 2016:344-346)

Author	Outcome methods	Qualitative findings	Quantitative outcomes
Koehne et al., 2016	<ul style="list-style-type: none"> • Multifaceted Empathy Test (MET) for individuals to select one of four mental state descriptors, which relates to their emotions in response to the photographs seen. A 9-point Likert scale is implemented for the individual to assess their response. • Self-rated Interpersonal Reactivity Index (IRI). 	N/A	<p>Improvement in:</p> <ol style="list-style-type: none"> 1) Emotional inference (d= 0.58) 2) Increase synchronisation skills and imitation tendencies 3) Increase in whole body imitation and synchronisation 4) Increase in movement reciprocity/dialogue <p>No significant clinical change was seen in empathic feelings or in self-rating of trait-level perspective taking.</p>
Mastrominico et al., 2018	<p>Pre-test questionnaires and a variety of diagnostic observational measures including:</p> <ul style="list-style-type: none"> • Empathy (IRI/SPF-E) • Emotional Empathy (CEEQ) • Cognitive Empathy (CEEQ) <p>(Mastrominico et al., 2018: 11)</p>	N/A	<p>The treatment group showed no substantial increase in any of the employed scales (CEEQ, IRI/SPF-E) (Mastrominico et al., 2018: 11)</p>
Mateos-Moreno and Atencia-Dona, 2013	<ul style="list-style-type: none"> • Revised Clinical Scale for the Evaluation of Autistic Behaviour (ECA-R). 	N/A	<p>The experimental group indicated improvements in:</p> <ol style="list-style-type: none"> 1) Difference for interaction disorder 2) Difference for imitation disorder 3) Difference for function of emotion 4) Difference for function of instinct 5) Difference for function of regulation/behavioural.
Author	Outcome methods	Qualitative findings	Quantitative outcomes
Wadsworth and Hackett, 2014	<ul style="list-style-type: none"> • Creative Arts Therapies session-rating scale (CAT-SRS) • Emotion symbol selection • BASIC-Ph scale 	<p>Observations made by the therapist using the CAT-SRS indicate improvement in:</p> <ol style="list-style-type: none"> 1) Communication 2) Social skills 3) Linking 	<p>Counts of themes within the six-part story method, as interpreted by the dance movement psychotherapist and dramatherapist indicated three dominant coping responses:</p>

		4) Motivation/ participation Therapist's interpretations of the patient's six-part story: 1) Enjoyment in physical games and movement 2) Potential for social interaction into the story through the character 3) Difficulty with problem solving and activities Emotion symbol selection: 1) The patient selected the emotion 'happy' in five out of seven sessions indicating that this was the most common change by emotion symbol picture selection	1) Physical 2) Cognitive 3) Social
Summary			
	There is no common outcome measures used across the eight studies.	Improvements were seen in at least one area across the studies that include QUAL data collection methods.	Improvements were seen in at least one area across the studies that include QUAN data collection methods. No changes were seen in relation to empathy.

Across the seven studies, only two studies used scales which were validated and standardised (Hildebrandt et al., 2016 and Koehne et al., 2016). The remaining studies indicated that the scale used was developed and modified specifically for their studies. Three of the studies (Koch et al., 2015; Koehne et al., 2016; Matrominico et al., 2018) looked at change in empathy and it was reported that there was a similarity in the outcome of there being no significant clinical change. Mastrominico et al. (2018) and Hildebrandt et al. (2016) share the commonality of reporting negative symptoms. Their differences identified in areas of focus to

measure change such as: emotion inference (Koehne et al., 2016), communication, social skills, linking, motivation/participation (Wadsworth and Hackett, 2014), and sensory experience (Edwards, 2015). The studies showed improvement in the aforementioned areas. However, all studies included used different non-comparable measures, which are detailed in the qualitative findings and quantitative outcomes table 6 above.

The six studies that encompass a quantitative method share the commonality of all reporting that DMP for autistic adults showed significant changes. Koehne et al. (2016) and Hildebrandt et al. (2016) reported an increase in the individual's ability to imitate, as well as ability to empathise or build emotional capacity. Koch et al's. (2016) study did not support the effectiveness of DMP to improve empathy skills, although there was significant difference with the aspects of self and other awareness. Wadsworth and Hackett (2014) augment this argument that social interaction is enhanced with DMP autistic adults. Lastly, Mateos-Moreno and Atencia-Dona (2013) reported that there were statistical differences in relation to interaction levels. Even though there are commonalities in themes between the studies and a significant difference except Koch et al's. (2016) study in relation to empathy, different methodologies are utilised. The variation in methodologies give broader scope for collating these results.

The three studies which incorporated qualitative methods indicated an improvement in a particular area. Edwards (2015) and Wadsworth and Hackett's (2014) studies show an improvement in social interaction. Edwards (2015) specifies that practitioners overall were able to read people better through understanding non-verbal communication of the other. Whereas Wadsworth and Hackett (2014) reported a closer inter-rater agreement for scoring BASIC Ph categories from the six-

part story, with one of the categories relating to socialisation. In addition, Koch et al. (2016) reports that practitioners have become increasingly aware of self-other distinction. All three studies presented here fall into the category of socialisation.

Across the seven studies various outcome measures were used to understand the phenomenon being examined. Only one of the studies used a qualitative method whereas the remaining six used mixed or quantitative methods. Edwards' (2015) qualitative study incorporated three strands of data: the therapist's observations, the co-therapist's perspectives, and the practitioners' verbal feedback, which were then coded and triangulated (Robson, 2002). The outcomes indicated that across the four practitioners there were sensory differences. The areas of sensory sensitivities included: sensory seeking, sensory avoiding, hyper-sensitivity, hypo/low registration, difficulties recognising facial expressions (Edwards, 2015). Edwards (2015) further states that practitioners appeared to use sensory-seeking movements and props when searching for comfort and connections. Lastly, both therapists noticed a fluctuation in the practitioners' attachment behaviour throughout the duration of receiving therapy (Edwards, 2015).

The remaining six studies included mixed methods or quantitative methods. Koch et al. (2015) (n=31) included mixed methods and data analysis, and observations were made of a mirroring technique. The DMP sessions were delivered over a seven week period. The concept of self-regulation (Koch et al., 2012) gave grounds for devising a qualitative developmentally based category system. This was a modified adaption of Fonagy et al. (2004) which focused on mirroring in movement relating it to the development of mentalisation skills (Fonagy et al., 2004) present in the practitioner. During the intervention clients were also encouraged to paint pictures and write poems based upon their experiences. Practitioner questionnaires were

collated pre and post-test consisting of the six-point self-report scale including the bipolar 12-items from the Heidelberger State Inventory (HSI: Koch et al., 2007). This scale measured the: psychological well-being, body awareness, self-other awareness, empathy, and social skills. The study concluded that DMP can be effective in the treatment of autistic adults, and in the areas of body awareness, self-other awareness, psychological well-being, and social skills. There was no evidence to say how an individual's ability to empathise changed.

Hildebrandt et al. (2016); Koehne et al. (2016); Mastrominico et al. (2018); Mateos-Moreno and Antenciadona (2013) and Wadsworth and Hackett (2014) all included measures of various kinds such as observations, interpretations and self-report scales to assess change. In Mastrominico et al's. (2018) (n=57), RCT study, which focused on the effects of mirroring in DMP on empathy for autistic adults, a variety of diagnostic and observational measures such as the SANS-scale for negative symptom was used (Andreasen, 1984). During and post intervention, the Cognitive and Emotional Empathy Questionnaire (CEEQ) (Savage et al., 2010) was used to measure the level of empathy through self-reports. The results showed no significant changes in overall empathy among groups.

Hildebrandt et al's. (2016) study (n=78) focused on a manualised DMP approach including Chace-Circle, dyad mirroring, Baum-circles, and verbal processing on negative symptoms in practitioners with autism. Demographic data was collated in the form of questionnaires (Scale for the Assessment of Negative Symptoms - SANS) (Andreasen, 1984) prior to and after the intervention period. To correct for alpha error-accumulation within the sub-scores, the Bonferroni-method (Hildebrandt et al., 2016) was applied and acted as a framework for analysis. Stronger symptom reduction was found in the treatment group for overall negative symptoms and for

almost all subtypes (Hildebrandt et al., 2016) Koehne et al. (2016) study (n=55) used a computer-based Multifaceted Empathy Test (MET) (Dziobek et al., 2008) measured at baseline and within 4 weeks to 17 after the intervention for individuals to select one of four mental state descriptors. The mental state descriptor is an ecological valid measure that allows the individuals to relate to their emotions in response to 40 photographs of people depicting emotionally charged situations (Koehne et al., 2016). A 9-point Likert scale was implemented for the individual to assess their response. The MET has been known to be a reliable measure of emotion inference (Koehne et al., 2016) alongside the Interpersonal Reactivity Index (IRI) (Davis, 1983). Outcome measures were analysed using a repeated measure mixed-model ANOVA (Koehne et al., 2016) before and after groups. The result indicated that there were improvements in emotion inference but not empathic feelings between the treatment group and the control group.

Mastrominico et al's. (2018) study (n=57) used quantitative measures including the Cognitive and Emotional Empathy Questionnaire (CEEQ) (Savage et al., 1989). A second measure that includes a sub-scale 'Empathic Concern' of the Interpersonal Reactivity Index (IRI) was used to further assess empathy. The treatment group showed no substantial increase in any of the employed scales (CEEQ, IRI/SPF-E) (Paulus, 2009).

Mateos-Moreno and Antenciadona's (2013) study (n=16) comprised of a comparison of two groups including an experimental and control group using the Revised Clinical Scale for the Evaluation of Autistic Behavior (ECA-R) (Barthélémy and Lelord, 2003). Eight measures were taken through this instrument and measured once every three weeks. An analysis of variance for repeated measures (ANOVAs) was used to test the general behavioural effects of the treatment. Procedures were devised inclusive

of a rigorous statistical approach for analysing sub-scales to determine variances in specific functions, primarily, Mann-Whitney's U (Mann and Whitney, 1947) between control and experimental groups for comparing scores on specific functions. Both the control and treatment groups reported a decrease in the disorder scores (Mateos-Moreno and Atencia-Dona's, 2013).

Lastly, Wadsworth and Hackett (2014) study (n=1) used a structured narrative approach in the form of the six-part story (Lahad and Ayalon, 1993). The BASIC-Ph is an assessment of a person's resilience and coping mechanisms under stress generated from the six-part story (Lahad, 2000). The BASIC-Ph included a radar chart to show inter-rater agreement from BASIC-Ph scores and was used to indicate dominant coping response themes extracted from the six-part story narrative (Wadsworth and Hackett, 2014). Analysis was conducted through using an observer rated method, the creative arts therapies 18 session-rating scale (CAT-SRS) (Hart 1978; Kiresuk and Sherman, 1968). Observations are made by the therapist using the CAT-SRS and this indicated improvement in the areas of communication, social skills, linking and motivation/participation.

2.11 Quality of Studies Included in This Review

The quality of studies was assessed using the risk of bias (Higgins and Green, 2011) for quantitative data and the grading of trustworthiness was applied for qualitative data (Cooke, Mills and Lavender, 2010). Five of the studies were high quality containing no flaws and were considered low risk. The remaining two studies had a moderate rating meaning that they contained some flaws and presented high or unclear risks. More detailed summaries of the trustworthiness grading are presented in table 7 and of the risk of bias grading in table 8.

Table 7: Grading of trustworthiness (devised by Cooke, Mills and Lavender, 2010)

Author	Qualitative studies grading system A-D
Edwards, 2015	B - some flaws, unlikely to affect the credibility, transferability, dependability and/or confirmability of the study)
Koch, et al., 2015	A - no flaws or few flaws. The study credibility, transferability, dependability and confirmability is high
Mateos-Moreno and Atencia-Dona, 2013	N/A
Wadsworth and Hackett, 2014	A - no flaws or few flaws. The study credibility, transferability, dependability and confirmability is high
Hildebrandt et al., 2016	N/A
Koehne et al., 2016	N/A

Table 8: Grading for risk of bias (devised by Higgins and Green, 2011)

Author	Bias domain	Source of bias	Review author's judgement	Support for judgement
Hildebrandt et al., 2016	Selection bias	Random sequence generation	Low	The treatment was divided into three repeated rounds over a two year period with six therapy groups averaging (n = 10) practitioners in each group. The practitioners were randomly assigned to one of the three groups, one of which formed the waiting control group
Koch et al., 2015	Selection bias	Random sequence generation	High	Even though the authors of the study put forward a reasonable argument for matching the practitioners, the lack of reason for not randomising makes the study less robust and a higher risk to bias.
Koehne et al., 2016	Performance bias	Blinding of practitioners and personnel	Low	Even though the study is not randomised, practitioners were blinded to the goal of the study and fully debriefed in writing at the end.

Mateos-Moreno and Atencia-Dona 2013	Selection bias	Random sequence generation	Unclear risk	Patient selection was conducted incidentally by staff of the specialised centre where all of the patients were being continuously monitored.
Wadsworth and Hackett 2014	Detection bias	Blinding of outcome assessment	Low	The radar chart to show inter-rater agreement from the BASIC-Ph scores were clearly presented with a strong rationale for its appropriateness for autistic adults since it is used as an assessment of a person's resilience and coping mechanisms under stress generated from the intervention of a six-part story

2.12 Discussion

The discussion will present the notable therapy characteristics and practices, the outcomes of the studies, and the limitations of the review.

2.12.1 Notable therapy characteristics and practices

Across the seven studies, the most common therapy characteristics and practices included mirroring. Koch et al. (2015: 339) states that “autism therapy should strongly focus on interaction on the non-verbal level to strengthen intersubjective reciprocity and address timing issues”. A study reported that rhythm and timing of movement are inherent in infancy and that challenges with self-synchrony can disrupt the “dance of relationship” (Amos, 2013: 1). Rhythm is an aspect seen in music. The use of music within sessions was also commonly seen in the studies. Karkou (2012) has explored the similarities and differences between DMP and music therapy (MT), which both use non-verbal communication, and emphasised their appropriateness for an affiliation. The only study that combines DMP and MT is

Mateos-Moreno and Atencia-Dona (2013), which highlights the distinctive channel of communication used by music and dance movement. Morris et al. (2020) state that current literature even outside of DMP specific, suggests that rhythm, which is a fundamental aspect of both dance and music can improve communication skills and social developments in children who have autism.

In relation to the procedures and mode of delivery of the therapy sessions, there were some commonalities seen. On average, the length of therapy sessions was one hour over a ten-week duration. Only one study in this review extended beyond ten weeks (Mateos-Moreno and Atencia-Dona (2013). The sessions were typically once per week and structured sessions were most common. Takahashi, Matsushima and Toshihiro (2019) conducted a systematic review reporting on the quality of DMP and autism studies and evaluating the effectiveness of DMP interventions for individuals who have autism. Takahashi, Matsushima and Toshihiro's (2019) study includes both children and adults and reported that two studies extended beyond the duration of 10 weeks (Koehne et al. (2016); Siegel (1973), although one study was based on children who have autism (Siegel, 1973).

The mode of delivery was mostly group-based work and person-centred principles most commonly influenced the therapists' approach. Hildebrandt et al. (2016) state that DMP sessions are mostly conducted on a one-one basis. The other studies based on children included in Takahashi, Matsushima and Toshihiro's (2019) systematic review (Siegel (1973) and Wolf-Schein, Fisch and Cohen (1985) conduct DMP sessions in groups. Therefore, it is questioned whether DMP practitioners work on a one-one basis with autistic adults and like the studies that exist with children, there is a lack of reporting or not enough included studies to generalise this claim.

Further research is therefore needed to explore in what ways DMP practitioners work.

The studies that used a manualised approach included a similar structure mirroring activities including a Chace-circle, Baum-circles and a dyadic movement part. A verbal processing section followed to complete the 60-minute session. Additionally, each of the four sections prescribed a time duration for each section. There are many ways of approaching dyadic movement such as dyadic leading, turn-taking, as well as a co-created reflective/reflexive process between the individual(s) and therapist (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). It can therefore be seen that there are many different forms of practice even when there were similarities in one common area such as 'dyadic movement' across the seven studies. Just as different forms of practice exist between the seven studies, so many forms of practice exist outside of research. There has not been a study that looks at the common ways of working in DMP practice and outside of the efficacy studies seen in the research. Therefore, it is unknown whether the forms of DMP that have been studied correspond to the forms of DMP that are practiced worldwide. One study that indicated a difference in practising was Koehne et al's. (2016) controlled proof-of-concept study which included a homework assignment. This is a therapy characteristic that is not mentioned in any of the other seven studies and is quite unique within a DMP approach for autistic adults. The homework assignment included observing and imitating movements in others to the transference of movement observation and imitation into daily life exchanges (Koehne et al., 2016). Further research is necessary to explore the specific ways in which DMP practitioners work so that the common practices internationally are identified and can be reliably tested for efficacy.

2.12.2 Outcomes of the studies

The main aims of this systematic review were to identify how DMP practitioners work with autistic adults, as found in the available research literature, as well as presenting related outcomes. The outcomes seen in this review suggest the efficacy of these interventions used, as all studies report at least one area of significant clinical change. The published literature is sparse in relation to DMP with adults, and although Takahashi, Matsushima and Toshihiro's (2019) reviews four studies that include adults, the focus is on quality and efficacy and less about how DMP practitioners work.

Across the seven studies, improvements were seen in practitioners' presentation related to an increase in self-awareness and body-awareness, relatedness to others, physical and emotional well-being and sensory integration. However, as stated, the improvements seen are based on forms of DMP in research studies that may not relate to the DMP being practiced outside of the efficacy studies.

It can be seen in this review that the evidence-base is growing through RCTs, and other types of trials being conducted. However, the sample sizes tend to be small, and it is therefore difficult to generalise results. Takahashi, Matsushima and Toshihiro's (2019) study also highlights that despite positive reports on the effectiveness of DMP interventions with individuals who have autism, there is no study that evidences whether a particular study design influences the effectiveness of DMP interventions for individuals who have autism. This is the case for this current review. Even though control trials are the most common design seen in five of the included studies; three are non-randomised (Koch et al., 2015; Mateos-Moreno and Atencia-Dona, 2013; Koehne et al., 2016) and two are randomised

(Mastrominico et al., 2018; Hildebrandt et al., 2016). Like Takahashi, Matsushima and Toshihiro's (2019) systematic review, using a particular study design does not influence the effectiveness of DMP intervention. In this review, all types of study design used showed positive outcomes. The only study that did not show a significant clinical change was Mastrominico et al. (2018). A reason for the non-significant results may be due to the fact that the two individuals experienced social challenges and therefore mirroring one another could have been difficult (Mastrominico et al., 2018).

Empathy was tested for improvement in three other studies (Koch et al., 2015; Koehne et al., 2016), as well as Mastrominico et al.'s. (2018) study. All studies reported no positive outcome for improving empathy levels for autistic adults using DMP as an intervention. This could be due to the fact that individuals who have autism can find it difficult to empathise (Adler, Dvash and Shamy-Tsoory, 2015). Cerbo and Rabi (2019) highlight that it may not be that there is no ability to emotionally respond to another person; it may be that there is an issue with social communication and/or an appropriate response to communicate. The claim that an autistic person experiences challenges with empathy is refuted by Milton et al. (2022) who use the term the 'double empathy problem', which refers to the breakdown in mutual understanding. Milton et al. (2022: 1901) states that empathy becomes:

“A problem for both parties to contend with, yet more likely to occur when people of very differing dispositions attempt to interact”.

Therefore, the focus within empathy may need reviewing, as well as consideration given to the study design that may best support testing empathy going forwards. Wadsworth and Hackett (2014) was the only study to use a single-case design. The study showed significant clinical change in: communication levels, social interaction,

ability to make links between the therapy session and outside experiences, and an increase in motivation levels. The areas measured are slightly different, although both studies share the commonality of reporting an outcome of improvement that relates to interaction in some form.

Edwards (2015) was the only study that uses an individualistic study design of a case study. Vulcan (2016) proclaims that studies that focus on children mainly use case studies; however, this current review is the only adult-based study that uses this type of study design. This type of study appeared to support positive outcomes, as Edwards (2015) highlights improvements in four main areas: ability to adjust to other's sensory needs; awareness of each other's emotional and mental state; feeling of security and enough to share and connect; expression faced in the difficulties of mismatching in communication when relating to people outside of the DMP group. The outcomes are based on the therapist and co-therapists' observation and the practitioners' verbal feedback at the end of each session. The case study design brings in a range of feedback, which supports positive outcomes. However, Edwards (2015) did not include a quality assessment, and therefore it is difficult to determine whether positive outcomes are trustworthy while utilising a case study design (Schurink and Auriacombe, 2010). More case studies with rigorous quality assessments are necessary to determine whether this particular study design influences the outcomes.

2.13 Limitations of the review

The review sought to report how DMP practitioners work with autistic adults. Identifying the notable therapy characteristics and practices answered the research question. However, the review highlighted that there are many forms of DMP being implemented and there were clinical methods that are deemed to be efficacious for

autistic adults. The manualised approach consisting of three mirroring exercises and a verbal processing element is most commonly recognised. However, the manualised approach is recognised in the country of Germany and has not been identified in any other country. The evidence-base of manualised approaches are structured in terms of time allocating each of the four areas of a session; however, there is one major limitation (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). The limitation is in understanding the specific ways in which DMP practitioners do warm-ups, mirroring, or a dyadic movement part of a session. Some DMP practitioners use relaxation including breathing techniques to support self-regulation, which is a core focus when working with autistic adults (Torrado, Gomez and Montoro, 2017). Movement rituals are sometimes used to open and close a DMP session, which is important for predictability and routine for an adult who has autism (Scharoun et al., 2014; Fuld, 2018). However, the manualised approach efficacy studies seen in this review do not detail use of rituals. With only seven studies being included in this review, it is difficult to ascertain the specific common practices within each structured section of a DMP session. Further research is necessary, in more depth and with a bigger sample size, to explore the real world DMP practice with autistic adults compared to the limited studies available in the literature. It is then that the efficacy of DMP with autistic adults can be reliably tested, opposed to testing a form of DMP in studies that may not conform to the DMP practiced.

Another area that could be explored in future studies, would be to find a standardised way of DMP practitioners working internationally. This would be beneficial for further understanding how DMP as an intervention works. Various outcome measures have been used. For testing areas such as empathy, which was

highlighted in this review as not showing any significant change, it may be tested more reliably if it is understood what the active ingredients of a DMP session includes (Bartholomew Eldredge et al., 2016).

A longer duration such as 17 weeks of receiving DMP could be beneficial as Mateos-Moreno and Atencia-Dona (2013) highlights. This is the only study that is considered by the researcher to be a long-term therapeutic intervention out of the seven included studies. More variance in results would support the evidence of interventions used for autistic adults. The majority of studies are conducted in education institutions or specialist centres. More community-based studies would be well received since many autistic adults live in residential settings and seem to disappear from society once they leave the education system as children. Additional attention and provision need to be available in a community context and included in future research studies.

The type of research design varies, although the control trial is the most used. Further research that looks at how using a particular research design influences the intervention would strengthen reliability of positive outcomes. It may be that more studies need to be conducted to determine if randomised or non-randomised impacts on the outcomes.

Finally, the outcome measures used across the seven studies are varied and this limits the understanding of whether the same results would apply in different clinical contexts, varying severity of autism, what aspect of DMP intervention may be most efficacious. A consideration could be given to the use of an appropriate validated outcome measure that can be applied consistently in future studies, to support replication and comparison of results.

2.14 Conclusion

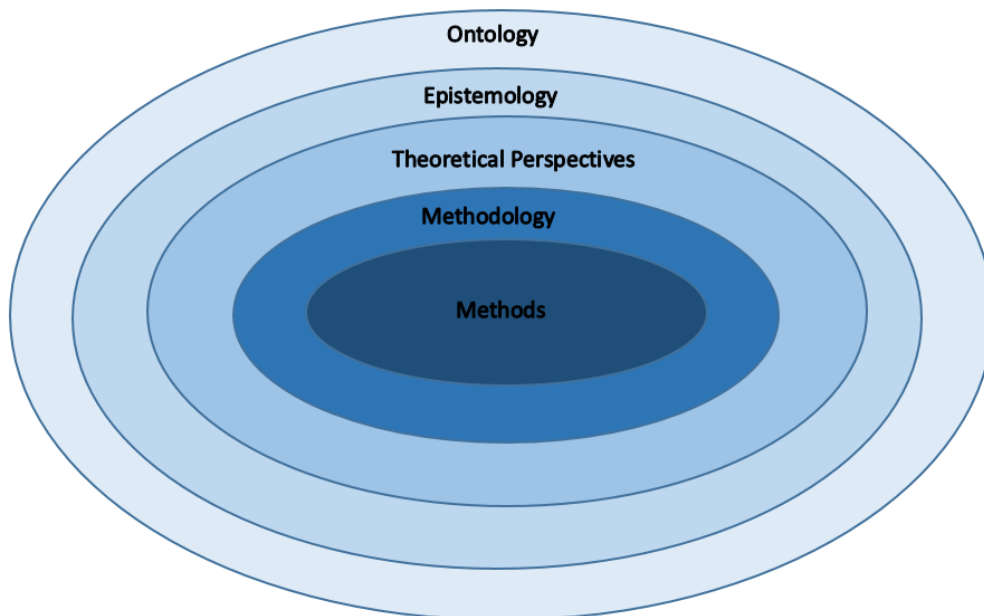
DMP, specifically in relation to autism, is a growing area in research. The studies in this review indicate that DMP as an intervention can be efficacious for autistic adults. The outcomes from the review highlight that there is reported clinical change in relation to: psychological awareness, body awareness, self-awareness, social skills, affective engagement and flow of interaction, imitation, function of emotion, function of instinct, function of regulation/behavioural variability, communication, linking, motivation and participation, reduction on negative symptoms in schizophrenia and the social component of autistic symptoms, and improvements in emotion inference. In all studies that measured empathy, no significant clinical change was seen. Even though there are limitations across the seven studies such as a variance in the study characteristics, intervention, outcomes and the quality of studies, the synthesis highlighted the common practices that DMP practitioners employ when working with autistic adults. There is a gap in the research in that there is currently no standardised practice that DMP practitioners can use internationally. There is much need to identify the common practices internationally for autistic adults, before these common practices can be reliably tested for efficacy. Identifying DMP practice is much needed, particularly in strengthening the reliability of DMP's efficacy studies for autistic adults.

Chapter 3: Methodology

The previous chapter demonstrated that studies focused mainly on the efficacy of DMP in relation to autistic adults and that, due to the various approaches used, it is unclear what form of DMP could be efficacious. As outlined in the introduction, this research aims to identify how DMP practitioners work internationally with autistic adults, and how their lived experiences, beliefs and values inform their approach.

The research questions asked, ‘what is the current international evidence on how DMP practitioners work with autistic adults?’ and ‘how do DMP practitioners work with autistic adults internationally and what informs their approach?’ In order to consider these questions, the methodological approach of a CGT was chosen and utilised for this study. Below the philosophical underpinnings of the research will be considered.

Figure 2: Research Onion



The Research Onion diagram is influenced by Saunders Lewis and Thornhill (2016). It depicts the linear stages of research and how the latter stages depend on the

earlier stages. The first layer represents the ontological position, which relates to the researcher's belief of the nature of reality. The research design flows through the layers of epistemology, theoretical perspectives and methodology, before finally the methods utilised are reached. The methods will be presented in the Methods chapter (chapter four).

Throughout this chapter, the ontology, epistemology and theoretical perspectives will be discussed. A discussion of different methodologies will be presented along with the reason why certain methods and methodological choices were discounted. The rationale for utilising a CGT approach will then be discussed with reference made back to the literature and intended aim of the planned study. Ethical considerations including discussions regarding the trustworthiness, research positionality and rationale for choices and the limitations will be presented.

3.1 Philosophies

The research questions seek to understand how DMP practitioners are working in practice and recognises that there is not just one way of seeing a DMP practitioner's work. Therefore, the philosophy section of this chapter outlines the ontological and epistemological positions taken in relation to this current study.

3.1.2 Ontology

Saunders, Lewis and Thornhill (2016) argue that ontology signifies assumptions about the nature of reality. It is imperative in the beginning phase of a research process to identify the ontological position as it determines the methodological approach, the study design and positionality of the researcher (Akkerman, Bakker and Penuel, 2021). Additionally, the ontological position adopted affects the research approach, the methods and the analysis of data (Al-Ababneh, 2020).

I have adopted the ontological position of 'being'. A 'being' ontology is defined as a "reality being composed of clearly formed entities with identifiable properties" (Gray, 2014: 20). The clearly formed entities with identifiable properties in my research include the practitioners of the research, the clinical methods and materials used in their practice, and the theoretical approaches that underpin their practice. For example, the clinical method of affect attunement is clearly formed, as it is described in DMP literature, and is consistently recognisable whenever seen (Renzo et al., 2020). Affect attunement also has identifiable properties of relational matching/mismatching to communicate shared understanding (Rollins and Greenwald, 2013).

In contrast to a 'being' ontology is a 'becoming' ontology. A becoming ontology is defined as "a reality that is changing and formless" (Gray 2014: 20). As stated above the aspects of practice that my research focuses on are clearly formed, and unchanging. The example of affect attunement is defined in DMP literature (please see the background information chapter (chapter one) and does not change. If new literature is published that argues for changes to affect attunement, this will build on the current form of affect attunement and not change it.

The ways in which the DMP practitioner work; are based on their lived experiences, values and beliefs. The DMP practitioners' way of working is the truth, and there are multiple ways of seeing (Gray, 2014), and meaning is co-constructed. Gray (2014:19) states that 'while ontology embodies understanding what is, epistemeology tries to understand what it means to know'.

3.2.2 Epistemology

Epistemology is defined as providing a philosophical context for determining what types of knowledge are appropriate and suitable (Gray, 2014). Having an epistemological view aims to clarify problems of research design and for considerations to be made in regard to what designs will be supportive or not (Gray, 2014). I will adopt a constructivist epistemology for this study due to this approach underpinning human interactions, as well as identifying previous knowledge and individual constructs (Dennick, 2016).

As well as being the researcher, I bring sixteen years' experience and knowledge practising as a DMP practitioner with autistic adults. The previous knowledge and experience that I hold, means that I as the researcher, am not bracketing out my previous knowledge and experience. Bracketing refers to believing that any form of scientific inquiry needs to remove the researcher from the findings (Dörfler and Stierland, 2019). It is impossible to erase previous knowledge and experience and is a contributing factor in co-construction of making meaning (Wa-Mbaleka, 2019).

The alternative epistemologies were objectivism and subjectivism. An objectivist epistemology is defined as reality existing autonomously of awareness (Gray, 2014). As Gray (2014) stated in objectivism there is a reality out in the world that exists separately to the researcher's knowledge. The researcher's role is to uncover this already existing reality. I excluded this epistemology, as my knowledge cannot be bracketed out (Dörfler and Stierland, 2019).

In contrast, a subjectivist epistemology means that the researcher is unable to comprehend the data from only an objective position, and therefore constructs a theory that will unpick the complexity established in the data (Levers, 2013). This

epistemology Levers (2013) stated holds that the researcher's knowledge and past experiences change their view of the reality. I rejected subjectivism as I believe that my experience and knowledge informed me in how I answered the research questions and interpreted the data. However, they did not change the way DMP practitioners work.

A constructivist epistemology was chosen to ensure that the researcher positionality was encompassed. As outlined above, a constructivist epistemology allowed for previous knowledge of the researcher to be included.

3.2.3 Theoretical perspectives

An interpretivist theoretical perspective was a good fit for the study, as it is closely linked to a constructivist epistemology. The co-construction of making meaning is an aspect of interpretivism in that it *"asserts that natural reality (and the laws of science) and social reality are different and therefore require different kinds of method"* (Gray, 2014: 23). A contrasting theoretical perspective is that of positivism, which claims that the social world exists externally to the researcher (Park, Konge and Artino, 2019). A positivist theoretical perspective was rejected due to the researcher holding knowledge and experience outside of the research process, and the role of the researcher's clinical experience could not be separated. The research question included 'how' DMP practitioners with reference to the practitioners' lived experience, beliefs and values. The research questions required a method that could interpret DMP practice, as well as gaining insights to the social reality of lived experiences, beliefs and values. An objective of this study is to identify and describe the DMP intervention. For this, an inductive approach is suitable. An inductive approach refers to meanings that emerge from the field (Tracy, 2020). Commonly, a

qualitative method is associated with an inductive approach and is less concerned with the testing of a hypothesis and more focused on meanings that emerge, which is the objective of this study (Aspers and Corte, 2019).

3.3 Qualitative research

As seen in the background information chapter (chapter one) and systematic review of the DMP literature (chapter two), literature that related to DMP for autistic adults is sparse and only seven studies currently exist (Edwards, 2014; Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). Even though these studies evidence the efficacy of DMP intervention for autistic adults; how practitioners are working, particularly outside of research, appeared to be missing. The efficacy cannot be reliable if the ways in which DMP practitioners work is unknown. Qualitative research tries to make sense of phenomena in relation to the meanings people bring to them (Denzin and Lincoln, 2017). Due to the researcher position it was appropriate to utilise a qualitative method in this study to identify how DMP practitioners work internationally with autistic adults, and how their lived, experience, beliefs and values inform their approach.

3.4 Qualitative methodology

A qualitative methodology seeks to understand the meaning of experience in a study sample (Grossoehme, 2014). In relation to this study, it was important to understand the ways in which DMP practitioners work, as well as their lived experience, beliefs and values. The role of researcher, as well as DMP practitioner, are inseparable. The focal point was therefore exploratory-based opposed to hypothesis testing.

The evidence in DMP for autistic adults is in the form of hypothesis testing (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). The aim of this study did not fit with a quantitative-based methodology due to not testing the efficacy of DMP intervention. Moreover, the purpose of this study was to understand how DMP practitioners were practising and to create a new contribution to the existing knowledge.

The methodology that enabled experience-based exploration with the aim to create new knowledge was that of grounded theory. Typically, the traditional version of a grounded theory methodology was not encompassing of literature being viewed nor permissive of previous knowledge informing the research process (Tie, Birk and Francis, 2019). The CGT was a better fit for this study, which allowed for the researcher to be aware of and reflect on their direct knowledge and experience of this area, as well as viewing the literature, to be part of the research process. Discussing why a CGT methodology was adopted, the reasons for not including a traditional Grounded Theory methodology is explained.

3.5 Grounded Theory

Grounded Theory (GT) was devised by Glaser and Strauss (1967), as a methodology that is suitable when a phenomenon is unknown with the aim of constructing a theory (Tie et al, 2019). GT consists of adaptable, succeeding analytic methods to construct inductive theories from the research data (Charmaz and Henwood, 2017). While a GT methodology is widely used across different disciplines; researchers are often still uncertain about how to implement it (Makri and Neely, 2021). A contributing factor may be that the two sociologists Glaser and

Strauss (1967) had differing views of how a GT methodology should be used. Strauss believed that the literature should be viewed previously and incorporated into the GT approach (Dunne and Zandstra, 2011). A Glaserian (1978) view; however, is that no literature within the same field should be viewed before the data is collected and analysed. The traditional version of a GT methodology was unsuitable for my study due to my previous knowledge and experience working as a DMP practitioner with autistic adults. A GT study stated that delaying the literature and bringing in previous knowledge makes it difficult for researchers to undertake studies in their own areas of knowledge which appears strange and unintuitive (Thornberg, 2012).

The traditional versions of GT have been significantly revised; however, it is still unclear that when exploring the data “what is going on” (Charmaz, 2006: 24). In the field of DMP, no studies, which use a GT methodology have been recognised nor do they address Charmaz’ (2006) comment of “what is going on”, specifically in relation to how DMP practitioners practice. In my study, I am interested in understanding all aspects of a DMP intervention. To understand the complexities of how a DMP intervention is used by DMP practitioners, as well as acknowledging my own experience and knowledge, a CGT methodology was chosen for this study since the process evolved from the intuition between the researcher and practitioners. A CGT methodology will be rationalised in the subsequent section.

3.6 CGT

To identify how DMP practitioners work internationally with autistic adults and how their lived experience, beliefs and values inform their approach, a CGT methodology was utilised. Over the years, a GT methodology has been adapted significantly with

Charmaz (2006) devising a CGT version. Next, a discussion will unfold on why the CGT version of GT was the most suitable methodology for this study.

3.6.1 Philosophical positions

The CGT methodological approach that was devised by Charmaz (2006) was developed utilising a CGT philosophical approach. As previously mentioned, a CGT methodology utilises an approach where meaning is co-constructed by the researcher and the practitioners. The flexibility within a CGT approach permits for “entertaining different explanations and keeps an open mind” (Dey, 1993: 229). Additionally, philosophers of a CGT acknowledge that alongside a flexible approach, mutuality occurs in the researcher-practitioner dyad (Charmaz, 2006).

This research study required a methodology that included the relational aspects between the researcher-practitioner in the meaning making process. Utilising a CGT methodology facilitated me bringing in my previous knowledge and experience and to weave this into the discussions with the practitioners. This enabled me to draw out, co-constructed meaning and apply this subsequently between practitioners. The generated theory is not a one account construction; there are many layers of being involved inside and outside the research process that constructs meaning (Rabe, 2003). Since I have experience as a DMP practitioner, I can recognise that the role of both researcher and practitioner contributed to the theory development in the utilisation of a CGT methodological approach.

The stages of a CGT methodological approach will be presented including the process of coding, theoretical sensitivity, memo writing and theoretical sampling.

3.6.2 The process of coding

The process of coding within a CGT methodology is described as attaching labels to segments of data and inform what each segment means (Charmaz, 2014). Further, the process raises analytic questions and purifies and organises the data, as well as providing a platform for comparing to other segments of data (Charmaz, 2014). All versions of GT include the process of coding and the Constant Comparative Method (CCM). In essence, the CCM is a process for developing meaning from what has surfaced in the data and appries the theoretical sampling stage (Tie at al., 2019). To reach the stage of theoretical sampling, the coding follows three phases: initial coding, focused coding, and conceptual coding (Charmaz, 2014).

3.6.2.1 Initial coding

The early stage of coding in a GT approach is called 'open coding' (Glaser, 1978; Strauss and Corbin, 1998), which what is referred to as 'initial coding' in a CGT version (Charmaz, 2014). The process of initial coding involves breaking data into smaller segments; word-word, line-line from the practitioner's language and organised in relation to their characteristics (Singh and Estefan, 2018). The initial coding process draws out the significant themes that are presented by the practitioner to discover what is happening (Charmaz, 2014). Appropriate with this study, initial coding identifies the characteristics that are involved in a DMP practitioner's practice. The second stage of CGT coding is focused coding.

3.6.2.2 Focused coding

Focused coding is defined as synthesising the data and conceptualising larger segments of the data (Charmaz, 2014). Through this development, commonly emerging codes merge and after an iteration process, the data is formulated as a

conceptual code, which provides the direction for further theoretical sampling (Singh and Estefan, 2018). Relevant to why I chose a CGT methodology, this focused coding stage utilises the researcher's interpretation from their existing knowledge. My knowledge and experience as a DMP practitioner, lecturer in DMP, and clinical supervisor of arts therapists, all contribute to the interpretation I would bring to the research. Transitioning between multiple roles of an experienced DMP practitioner and researcher will lead to deeper meaning and greater insight within the interpretation (Tie et al., 2019). Therefore, a CGT methodology is the appropriate choice for this research. This experience-led interpretation is also significant for the next stage of coding, the theoretical coding.

3.6.2.3 Theoretical coding

The final stage of coding, "theoretical coding" "weave[s] the fractured story back together again" (Glaser, 1978:72). Theoretical coding is a process to conceptualise relationships between the initial and focused codes (Bryant and Charmaz, 2019). Through marrying the codes in relation to a concept; conceptual categories are constructed and lead to the generation of a theory. The development of generating a theory will be discussed later in this chapter (chapter three). All of the aforementioned stages of coding are suitable for my study since the aim is to identify how DMP practitioners work.

3.6.3 Theoretical sensitivity

Theoretical sensitivity is a process that Glaser and Strauss (1967) outlined as when the researcher can identify a data segment that is significant to the theory development (Tie et al., 2019). A more contemporary approach compared to Glaser and Strauss' (1967) definition is that theoretical sensitivity is the "ability to recognise

and extract from the data elements that have relevance for the emerging theory” (Birks, Hoare and Mills, 2019:181). The relevance to my study is that an open mind is necessary in that I can identify aspects of theoretical importance through my DMP practitioner role, although I am able to transition to my role of researcher during the data collection and analysis phase (Tie et al., 2019). The combination of these two roles allows for sensitivity to the theoretical data that emerged throughout the CGT methodological process. Another process of CGT where my roles of practitioner and researcher can be amalgamated to facilitate the generation of a theory, is memo writing.

3.6.4 Memo writing

Memo writing is part of the theory development process within a CGT methodology (Charmaz, 2014). Memoing is an analytic process that is said to be important in confirming quality in grounded theory (Birks, Hoare and Mills, 2019). The researcher dialoguing through the process of memos strengthens the interaction and full immersion with the collected data (Tie et al., 2019). The memos create a historic trail for processing the researcher’s feelings and thoughts and provides a space to reflect interpretations (Birks, Hoare and Mills, 2019). Memoing enables the researcher to detail why and how decisions were made throughout the research process, which contributes to a higher level of analysis (Lempert, 2007; Birks, Hoare and Mills, 2019).

The relevance of the memo writing process within a CGT methodology for this study is that it allows for the two roles that I bring to this research study: researcher and DMP practitioner, to process thoughts and feelings. Additionally, through the iterative process of the collected data, the memoing provided me with a historic audit

trail to develop the analytical thinking required for developing a theory, as well as making me as the researcher aware of new concepts emerging. The process of theoretical sampling was used to direct collection of supplementary data that will inform the generation of the theory (Mills, Berks, Hoare, 2014).

3.6.5 Theoretical sampling

Glaser and Strauss (1967) recognised that the iterative process of developing the conceptual categories gave GT much of its strength. A new process ‘theoretical sampling’ was implemented in a CGT version of GT, to fill out these categories with new data (Charmaz and Thornberg, 2020). Simply, new data is collected to inform the categories that have previously emerged. Glaser and Strauss (1967) strive for theoretical saturation of the developing conceptual categories. Theoretical sampling and theoretical saturation rely on the iterative process and cross checking the categories alongside data (Charmaz and Thornberg, 2020).

Charmaz and Thornberg (2020) further argued that if the researcher inquires about the same questions, it is most likely going to bring up the same stories of the subject. The iterative process of refining the data through a CCM would help to strengthen the data analysis. A CCM continues up until a solid theoretical understanding has been achieved (Cohen and Crabtree, 2008). Once the theoretical understanding has been achieved through the building of theoretical relationships, theoretical saturation has been reached through the process of theoretical sampling (Charmaz, 2014). The relevance to my study is that the CCM allows for evolution in the data collection and analysis as new concepts emerge from the data. As my research is looking to uncover how DMP practitioners work internationally, I expect there to be concepts that emerge throughout the data collection and analysis processes. This evolution in

the data collection and analysis through the CCM, allows for a more thorough and reliable theory to be developed.

3.6.6 Theory development

The theory development is the core focus of a GT approach, and it is the generation of a theory that distinguishes GT from other qualitative methodologies. In traditional GT it is stated that “theorising is the act of constructing from data an explanatory scheme that systematically integrates various concepts through statements of relationship” (Strauss and Corbin, 1998: 25). Whereas a CGT methodology defined theory development as an interpretive method that is co-constructed to discover meaning of the study area that is being explored (Charmaz, 2014). Given that it is unknown how DMP practitioners work internationally with autistic adults outside of the efficacy studies seen in the research, generating a theory appeared to be relevant in answering my research aim, as well as providing a new contribution to knowledge. The theory development that is derived from my study is discussed in the discussion chapter of this thesis (chapter seven) and visually presents the generated theory in the last section of the discussion chapter.

3.7 Rigour

GT is often criticised for a lack of rigour (Cooney, 2011). A rigorous and robust coding framework was implemented by Strauss and Corbin (1994); however, Charmaz (2014) had a more flexible approach to coding. The requirements for establishing rigor in a qualitative GT methodology is different to that of a quantitative method primarily due to the latter utilising measurements (Maher et al., 2018). Theoretical sampling and theoretical saturation complemented the flexible coding guidelines through strengthening researchers’ analysis (Charmaz and Thornberg,

2020). Quality criteria was therefore proposed within a CGT methodology and included: credibility, originality, resonance and usefulness (Charmaz, 2006, 2014). Next, each of the four criteria will be discussed including the relevance to my study.

3.7.1 Credibility

Credibility is defined as the findings representing the views of the practitioner opposed to the researcher (Makri and Neely, 2021). Credibility also comprises of the researcher's interpretations and a CGT involves reflexivity throughout the progression of the research (Charmaz and Thornberg, 2020). Therefore, the researcher must explain any assumptions, and as Charmaz (2017: 34) stated, gain "methodological self-consciousness" of uncovered beliefs that exist. A robust 'methodological self-coconsciousness' means more than investigating the researcher's methodological choices, and means exploring who the researcher is (Charmaz, 2017). The relevance to my study is that the reflexivity that occurs through the memo writing process augments the knowledge and experience that I have obtained in the roles of DMP practitioner and research and highlighted the co-construction with the practitioners. Additionally, the practitioners' descriptions of how they practice, as well as their lived experience, beliefs and values, are the fundamental in the theory development of this study. It was seen in Charmaz's (2006) CGT, questions being posed for researchers to consider to assess the credibility of their study. The questions included thinking about achieving familiarity with the setting or topic; adequate data collection to merit your statements; consideration to the depth of interpretations, as well as the sample and its size; contrasts between interpretations and categories; inclusion of an extensive variety of empirical interpretations; strong links between the data collected and argument

established in the analysis; sufficient evidence to strengthen the researcher's statements to enable the reader to make their own assessment from which they can agree or not with the researcher's statements (Charmaz, 2006). As well as the researcher considering these areas, the criteria of originality warrants consideration in a CGT methodological approach.

3.7.2 Originality

In a CGT methodological approach, Charmaz (2006) poses further questions surrounding the originality of a research study. The difference of CGT compared to other qualitative methodologies is that CGT requires the researcher to follow systematic steps whilst remaining grounded in the data collection and analysis process (Thronberg, 2012). The overall aim of a CGT methodology is to generate a theory through the researcher immersing themselves in the data and co-constructing a theory from the practitioners and the researcher's interpretations. The generated theory, as Charmaz (2006) proposes should offer new insights, and new concepts to the data. One of the main criteria for a PhD is to provide a new contribution to knowledge. With reference to Charmaz's (2006) CGT methodological approach, I as the researcher, aim to establish new insights through grounding the practitioners and my own interpretations to co-construct meaning.

3.7.3 Resonance

By researchers constructing concepts that do not solely represent the research practitioners' experiences and insights (Charmaz and Thornberg, 2020). In turn, both the credibility and originality are enhanced and contribute to the increase in resonance (Charmaz, 2006). The enhancement of resonance is established through the researchers fitting their data approaches to emphasise their practitioners' lived experiences (Charmaz and Thornberg (2020). To assess the resonance of a study,

Charmaz (2006) believes that certain considerations should be made in relation to categories revealing the richness of the examined experience. The GT is understood by the practitioners, and this generates greater insights about the practitioners' lived experiences.

3.7.4 Usefulness

The usefulness includes clarifying the practitioners who were involved in the research to understand their everyday lives; creating a basis for practice applications (Charmaz and Thornberg, 2020: 317). Additionally, Charmaz (2014: 344) described that social constructivism:

“Assumes that people create social reality or realities through individual and collective actions and symbolic interactionism is a constructionist perspective because it assumes that meanings and obdurate realities are the product collective processes”.

Phenomenology could have been a good fit for this qualitative study; however, this methodology was rejected due to the focus being on individuals lived experience within the world (Neubauer, Witkop and Varpio, 2019). My study is more concerned with the lived experience of the practitioner, as well as exploring the practitioner's DMP practice. Therefore, CGT is a useful fit for this study, as it aims to identify how DMP practitioners work internationally with autistic adults, and how their lived experience, beliefs and values impact their approach.

Summary of chapter

This chapter presented the rationale for why a CGT was the most appropriate methodology for this study. An ontological position of 'being' was adopted for this study because the truth and meaning are directly coming from the practitioners. A constructivist epistemology was chosen due to firstly incorporate my own experience and knowledge as a DMP practitioner with my research, as well as providing a

platform for the voices of the practitioners to be included such as their lived experiences, beliefs and values. In relation to the theoretical perspectives that underpinned this study, interpretivism was selected due to my study asking the question of 'how' DMP practitioners work with an additional question that related to practitioners' lived experience, beliefs and values. These questions required a method that could interpret DMP practice, as well as gaining insights to the social reality of lived experiences, beliefs and values. The methodology that supported the underpinning philosophies was chosen for this study since the process evolved from the intuition between the researcher and practitioners. The chapter concluded with an outline of each of the CGT processes including the process of coding; theoretical coding; theoretical sensitivity; memo writing; theoretical sampling, and theoretical development. An acknowledgement regarding rigour was next presented followed by the CGT criteria that Charmaz (2014) devised which included credibility, originality; resonance; usefulness. The methods that fit with a CGT methodology and were most suitable for this study will be discussed next in the methods chapter (chapter four).

Chapter 4: Methods

The previous chapter presented a CGT methodology and discussed how it was the best fit for supporting my research aim of identifying how DMP practitioners work with autistic adults. In connection to a CGT methodological approach, I wanted to address the co-construction of bringing in my previous knowledge and experience and not bracketing myself out of the process. I discussed how I adopt a constructivist epistemology in the previous chapter. In this chapter, I will discuss why and how I adopted the method of semi-structured interviews.

The chapter will firstly look at the adopted method of semi-structured interviews. Next, the inclusion and exclusion criteria will be presented. Following these sections, an acknowledgement to the ethical considerations and ethical approval stage will be given. The information and consent form process will be discussed. Confidentiality and an explanation of how data was managed will be discussed followed by the sampling and recruitment of practitioners. Last will be a discussion of how rigour in a CGT methodological approach is used to increase credibility, originality, resonance and usefulness and fit (Charmaz, 2014).

4.1 Data collection method

There are various possible strategies to consider in a research study. The choice of strategy also informs the type of method utilised. The qualitative method that I have chosen is semi-structured interviews. Even though focus groups, action research, ethnographic research, content analysis and case study research (Crotty, 1998) are other invaluable qualitative methods; semi-structured interviews are most appropriate for understanding how DMP practitioners work with autistic adults. There are advantages and disadvantages of using these strategies such as time, quality

and funding accessibility (Gray, 2014). The use of semi-structured interviews allowed for discovery and to follow trajectories as the discussion develops (Magaldi and Berler, 2018).

The disadvantage of using semi-structured interviews is that the recruitment process is time consuming. However, In relation to Creswell's (2012) five reasons for selecting a qualitative study: exploration, complexity, context, explanation, and measures all fit this method. (Creswell, 2012). In relation to 'exploration' the semi-structured nature of the interviews facilitated the opportunity to probe the interviewee for more information and to elaborate on their responses (Gray, 2014). Additionally, the exploration part of semi-structured interviews offers rich evidence-based examples of the common DMP practices used with autistic adults. The exploration involved identifying the patterns that emerged between interviews and supported the process of constructing a theory about how DMP practitioners work with autistic adults.

Another of Creswell's (2012) reasons for qualitative methods is complexity. Adding complexity that is not statistical is necessary for this study, as the practitioners can describe their DMP practice. The building of complexity happens in the identification of patterns between interviews. There is an interconnection between the interviewee and my own interpretations. Alongside the complexity element, the context is also important to consider when understanding the reason why qualitative methods are most suitable for this study. The semi-structured nature of the interviews allowed for me to collect the data in person, I also allow for further questioning and discussion of themes in the interview to provide context around the DMP practitioner's practice. Another reason is to provide an explanation through devising a theory that can later be tested and collate results that are not measurable. Lastly, measuring the usability

is something that allows consideration at a later stage, but in the first instance an outline of what the common DMP practices are for autistic adults is necessary. The research question of 'how' DMP practitioners work is not quantifiable.

The research strategy supports the study as being the only existing study that looks at how DMP practitioners work with autistic adults. The current evidence base supports how DMP practitioners practice; however, the focus of the studies is about the efficacy of DMP. The clinical methods described in the current literature are either manualised or very briefly described and this does not give a true representation of how DMP is practiced in the real world. Through interviewing DMP practitioners internationally, insight is provided into DMP practice for autistic adults. The qualitative method of interviews best supports the research questions being asked and provides me with a new original contribution to knowledge based on the gaps in the evidence-base. Through the influence of a CGT, a theory is built that can be used to create an evidence-based clinical framework. The method of semi-structured interviews aligns with a CGT to best answer the research question, particularly as the researcher's prior knowledge and experience informs the interview questions. As Heidegger (1962) argued, I as the researcher, will not bracket out my knowledge. The rationale for my choice of method has been outlined and I will now discuss the processes involved prior to data collection including devising an inclusion criteria, sampling strategy, the recruitment process, and information and consent forms.

4.2 Inclusion and exclusion criteria

The DMP practitioners eligible to take part in the study needed to meet the following inclusion criteria:

1. To have a willingness to participate in the study through semi-structured interviews.
2. To be a fully registered dance movement psychotherapist with an official dance movement therapy association.
3. To have a minimum of two years' experience working with adults age 18+ who have autism.

Exclusion:

1. Non-English speakers

The experience level was set at a minimum of two years' experience. The two years' experience requirement is in line with what used to be a 'senior level' DMP practitioner (ADMP UK, 2022). Even though Senior Registered DMP Practitioner no longer exists as a title in the ADMP UK, the two years' experience is also the minimum requirement to be able to apply for a private practice licence. Therefore, having the two years post qualification requirement will ensure that only experienced practitioners who would be eligible for private practice will be eligible for the study. The inclusion criteria were aimed at DMP/T practitioners internationally. It appeared important to acknowledge that the recruitment could include any country and multiple practitioners from any country who met the criteria. Due to the aim of an evidence-based framework being planned following this study, as long as the practitioners met the inclusion criteria, the country that they were based in and the setting context was not important. The most significant consideration is that data saturation is met in relation to how DMP practitioners work. The international perspectives give a greater range of how DMP is practiced in the real world opposed to focusing on one country or continent. Due to the study being part of a PhD, time constraints were a

disadvantage, and therefore the data saturation was more of an important feature of the CGT methodology utilised.

Non-English speakers were excluded due to the need to conduct interviews in English and it not being feasible to provide translators.

4.3 Ethical approval and considerations

This section will provide an overview of the approval sought for the study and the key ethical issues considered including approvals, informed consent, participant well-being, confidentiality and anonymity, and data management. All considerations were informed by the relevant UK and Edge Hill University policies for research including Research Ethics, Code of Conduct for Research and Data Management Policy.

Prior to recruiting practitioners and collecting data from the interviews, ethical approval was necessary from the University's Faculty of Arts and Sciences Research Ethics Committee (FREC). Ethical approval was given on 30th July 2015 by the FREC to conduct interviews with DMP practitioners in the UK (please see appendix 1). Further ethical approval was granted on 19th December 2019 for the number of participants to be increased.

4.3.1 Informed consent

Informed consent was carefully considered for recruitment of DMP practitioners and was achieved through sending a consent form. An interview information sheet was sent with the consent form, which explained the study, and welcomed any questions prior to consenting (please see appendix 2 and 3). All participants were able to select a choice of what preferred online platform they would like to use including: Zoom, Skype, Google Hangouts. The practitioners then confirmed that they had

read both the information sheet and consent form and sent back the consent via e-mail.

As seen in the consent form, anonymity was ensured regarding the practitioners' identity and the names of clinical settings that they worked within. However, the type of setting and country was required and will be disclosed to give more context to how the DMP practitioners work and the influences from the setting and country cultures. The interviews were then scheduled at a time that was convenient for the practitioner. Before the interview began, an overview of the study purpose was given and then the key points from the information sheet and consent form were reiterated to reconfirm consent on the day of data collection. This included:

- Approximate length of the interview
- How the interview would be recorded
- Anonymity of collected data
- Right to withdraw up to four weeks after the data had been collected
- How the data was to be stored and how the data will be safely disregarded after the study results have been written

Following the UK-based interviews, an amendment was submitted to the FREC. This amendment was to update the change in sample size and conducting further interviews internationally since the sample for UK-based interviews did not reach data saturation and the number of individuals recruited in the UK alone was low, therefore international recruitment was necessary. It was confirmed to the FREC that the same process and procedures would apply as in the UK-based interviews. Since no substantial changes would be made to the methods other than an amendment to the width and breadth of the interviewee sample, this amendment

was permitted by the FREC on 19th December 2019. The timeframe for data collection was therefore extended from January 2020 to 31st March 2021.

4.3.2 Participant well-being

Risks to practitioners and well-being were also considered. Due to the interviews being aimed towards registered DMP practitioners who are not considered vulnerable, and the focus of the interviews being about their practice, there was no risk of harm foreseen by the researcher to the DMP practitioners' well-being.

Practitioners were informed that parts/all of the findings from this research study could be published. I welcomed the practitioners to ask questions at the end of the interview process. Contact details for further discussion and/or questions were also made available to participants.

4.3.3 Confidentiality and anonymity

Confidentiality and anonymity are important to consider, particularly when interviewing DMP practitioners about their work. The Health Research Authority (2017) includes confidentiality as one of the points in its policy framework for health and social care research. Being in a professional role may expose practitioners to feeling that they need to answer 'correctly' (Knapik, 2006). Whilst the interviews are not focused on a controversial area of research, there is always the possibility that a practitioner's answers could lead to consequences for them if they were identifiable (Shaughnessy, 2013). Kamanzi and Romania (2019) stated that confidentiality in qualitative research should not be blindly seen as an ethical need, especially as often purely stripping identifying information such as participant name from data does not guarantee confidentiality and anonymity. Whilst there is no foreseen risk for practitioners in taking part in these interviews, confidentiality and anonymity are

considered within the methods and processes of this study. An additional reason for including confidentiality and anonymity is that the practitioners will most likely expect this consideration, and not including it may result in a loss of confidence in prospective participants and them perhaps not continuing to participate.

I emphasised in the information sheet and consent form that I would not disclose their practitioner's identity and ensured that the data collected would be managed through encrypting it to protect their identity. Additionally, I informed the practitioners not to use names of the people whom they worked with or the actual names of the clinical settings to further protect confidentiality. Upon beginning the interview pre-recording, I reminded the practitioner that I was interviewing from a private space and checked that they also had a private and comfortable space whilst the online interview took place.

4.3.4 Data management

During the process of data collection, the interviews were recorded on my secure personal laptop using Debut Video Capture software (NCH Software, 2017). This software saved the recording to the laptop hard-drive. The interview recordings were then stored on a USB flash drive that was encrypted using VeraCrypt with a password and were deleted from the laptop hard-drive. This ensured that if the flash drive was lost, the recordings would not be accessible. For protection against loss of data, two further encrypted flash drives held additional copies of the recordings.

The researcher transcribed the interviews themselves and therefore there was no transfer of any identifiable data. During transcription any identifiable information was anonymised. The transcriptions and consent forms were also stored on the encrypted flash drives.

After graduation the supervisory team for this study will act as data guardians and the recordings, transcriptions and consent forms will be transferred to them.

4.4 Sampling strategy

The sampling strategy for the study was used to capture as many DMP practitioners working with this client population as possible. The nature of the work of DMP practitioners is such that experience with this client population is not routinely recorded. The association directories are not always clear in documenting the registered DMP practitioner's experience. When autism was mentioned under the DMP practitioners experience information; it often stated 'autism' without specifying the age group. Therefore, this required further information and the best way to receive confirmation was to directly contact the DMP practitioner.

The premise behind snowballing is to identify a small number of subjects, who in turn, recommend others in the studied population (Naderifar, Goli and Ghaljaei, 2017). The snowballing strategy was used through the researcher directly contacting DMP practitioners at random from the countries relevant DMP/T association in the 'find a therapist' directory. Some contacts responded to inform the researcher that they did not meet the inclusion criteria. However, the contact was able to identify key appropriate DMP/T practitioners in the field. Therefore, a snowball technique was used for recruitment due to receiving no response from the association call outs. A snowballing sample is a type of purposive sampling technique where to initial direct contact may establish a recommendation to other potential practitioners who meet the inclusion criteria (Naderifar, M., Goli and Ghaljaei, 2017).

4.5 Recruitment

The current study initially recruited in the UK. However, no response came from the recruitment call through the ADMP UK newsletter and only nine DMP practitioners responded to the direct contact using the snowball strategy. Eight of these DMP practitioners who responded subsequently met the criteria. Due to very limited response from suitable DMP practitioners in the UK, and having not met data saturation, further recruitment internationally was necessary. The international recruitment included the same process as the UK with announcements in the relevant association's newsletter or forum. The following associations were contacted: American Dance Therapy Association (ADTA), Dance Movement Therapy of Australasia (DDTA), European Dance Movement Therapy Association (EADMT), and The Indian Association of Dance Movement Therapy (IADMT). Once again, no direct responses came from the newsletter or forum recruitment call. Since I have over sixteen years' experience working in the field of dance movement psychotherapy; in the capacity of DMP/T practitioner, supervisor and lecturer, I have many international contacts of DMP/T practitioners working in the field. If the individual contacted did not meet the inclusion criteria, they themselves may make a recommendation of a colleague to contact. Additionally, the association directories were searched for therapists who noted their experience of working with individuals who have autism. This strategy of snowballing gave appropriate contacts to fulfil the inclusion criteria. The recruitment is discussed in the next section.

Where practitioners met the inclusion criteria the information sheet and consent form were sent together (please see appendix 2 and 3). Once the information sheet and consent form had been read and agreed to by the practitioner, the semi-structured interview was scheduled and conducted via an online platform such as Skype or

Zoom. There were 126 invitations sent, which led to 61 responses. 21 of the practitioners who responded met the inclusion criteria, of whom 20 practitioners consented to being interviewed.

All interviews were recorded using Debut Video Capture software (NCH Software, 2017), which allowed the researcher to visually see, as well as hear the practitioners. Non-verbal communication was highly important when transcribing, as many practitioners had an accent. Through being able to see the practitioner's facial expressions, it made the transcription process smoother.

All interviews were transcribed by the researcher and each averaged nine hours of work to transcribe. Dragon software was attempted, though it was not accurate at detecting voice and therefore manual transcriptions were chosen. Transcribing all interviews, allowed the researcher to fully engage with the content and analysis, and assisted with accuracy and reliability.

4.6 Semi-structured interview questions

The initial interview schedule was devised utilising a constructivist approach for initial questions used in the first interview. Due to the researcher being influenced by a CGT methodology, the questions changed over time until the data reached theoretical saturation. Using NVivo software permitted me to look at the initial codes and what was emerging from one interview and modify the questions before the next interview.

The main principle of the interview questions was to focus on how do DMP practitioners work with autistic adults? This included some contextual information about how long they have been practising, where and in what type of setting. The interview questions were organised into categories: practitioner context, autism

specific regarding diagnostic information, aims and goals of DMP practice, approaches to the work including philosophy embedded in their practice, interventions, and session particulars (length of session, one-one v group).

Theoretical sampling is used as a strategy to narrow the focus on emerging categories and as a technique to develop and refine them further (Charmaz, 2012). Subsequently, Charmaz (2012) further argues that there is an iterative process of CGT of repeatedly targeting your data collection as you gain thoughts and describe patterns. The iterative process includes analysing the collected data from one interview and then revising the questions in preparation for the next interview. This is a continuous process whereby the analysis informs the data collection, which in turn informs the analysis before conducting the next interview. Glaser and Strauss (1967) define this process as the 'Constant Comparative Method'. This method is used for analysing data in order to develop a 'grounded theory (Cohen and Crabtree, 2008). Each interview informs the subsequent interview, by influencing the questions going forwards. The Constant Comparative Method is further discussed and illustrated in the CGT coding chapter (chapter five).

4.7 Rigour in the study

In the previous methodology chapter (chapter three), Charmaz's (2014) CGT approach introduced criteria to assess the rigour and quality including: credibility, originality, resonance and usefulness. The next section of the methods will discuss these four criteria in relation to this research study.

A CGT methodology was used for this research and supported the co-construction in answering the research questions (Charmaz, 2014). The method of semi-structured interviews allowed for the co-construction of making meaning and in generating new

guidelines for DMP practice for autistic adults. The next sections will address the rigour that Charmaz (2014) proposes, particularly in how it relates to this research study.

4.7.1 Credibility

The credibility can be seen in the following CGT coding chapter (chapter five) where I show transparency of how I constructed the codes. The methods for constructing the codes were guided by the systematic steps involved within a CGT methodology. Charmaz (2017) talks about being methodologically self-conscious in giving careful attention to the data collection, as well as to the data analysis. In essence, Charmaz (2017) encourages researchers to think about the decision-making used including ontological and epistemological positions and how these may have influenced the study.

I have aimed to stay close to the meaning given by practitioners through immersing myself in the collected data. Where clarity lacked on occasions, I have used the process of memos to make note of my questioning, evaluation and what is unclear, so that the process is transparently processed. I have disclosed the details regarding the sampling and recruitment process and outlined the methods utilised to provide an explanation for using a CGT methodology. In the concluding chapter of this thesis (chapter eight), an outline will be given of the strengths, limitations, recommendations for practice and recommendations for research, which augments the credibility and transparent process to this study.

4.7.2 Originality

This study has brought new insights (Charmaz, 2017) to the practice of DMP for autistic adults and has added to the knowledge base. Chapter two highlighted the

paucity of literature focused on how DMP practitioners work with autistic adults. The existing literature focused on the efficacy of DMP for autistic adults, although there is no literature that looks at the common ways in which DMP practitioners work. This study looks at offering new insights into how DMP practitioners work and contributes towards the development of a theory.

4.7.3 Resonance

The interview questions were informed by the researcher being a DMP practitioner and this allowed for flexibility within a semi-structured interview method due to bringing in understanding, knowledge and experience. The semi-structured method allowed for the insider position of researcher/DMP practitioner to be included within the research process and permits greater reflexivity to shape questions being asked within interviews (Gaillet and Guglielmo, 2014).

4.7.4 Usefulness and fit

This study will contribute to the knowledge of how DMP practitioners are working with autistic adults. In gaining this knowledge, the model of practice can be extended and replicated to other client populations.

Summary of methods

This chapter discussed the data collection method and their application to semi-structured interviews to best answer the research question for this qualitative study. Recruitment of participants occurred through the utilisation of a snowball sampling strategy. The recruitment is next explained followed by an explanation of how practitioners consented to the study and the information that they received prior to scheduling an interview. The semi-structured interviews are explained, as well as

the introduction to the Constant Comparative Method (DePoy and Gitlin, 2019), and the data analysis stage, which is detailed further in the CGT coding chapter (chapter five). Ethical approvals and considerations are outlined, along with Charmaz's (2014) criteria that was used to evaluate the rigour including the credibility, originality, resonance and usefulness. The findings of the study will be presented in the next two chapters. The first (chapter five) will present the CGT coding context including the participant characteristics and provide illustrated examples of how the analysis was conducted with exemplar participant data. Separately, (chapter six) the findings will be presented relating to the key objectives of identifying and describing the DMP intervention using the TiDier checklist (Hoffman et al. 2014), as a supporting reporting framework; identifying the practices, lived experiences, beliefs and values of DMP practitioners who work with autistic adults.

Chapter 5: CGT coding context

This chapter will present the participant characteristics and provide illustrated examples of how the analysis was conducted with exemplar participant data. The research question that aligns with the interview data was 'how do DMP practitioners work with autistic adults internationally and what informs their approach?'

The chapter will recap the context of the study and provide an overview of the practitioners. The stages of recruitment and demographics of the practitioners will be described. The interview process will be discussed including how a CGT approach was assured. An explanation of how data saturation was measured will be provided followed by a discussion of a formulation of the initial codes, focused codes and conceptual categories through the data analysis process. The findings from the analysis will conclude this chapter.

5.1 Recruitment responses

The 126 invitations were directly sent to perspective practitioners and 61 responses were received back. There were 21 respondents who subsequently met the inclusion criteria. All 21 respondents who met the inclusion criteria received an information sheet and consent form. 20 practitioners consented and took part in the interviews. One of the interview recordings was poor quality and had to be rejected resulting in 19 interviews which were analysed and included in the findings. The next section will present the practitioner characteristics.

5.2 Practitioner characteristics

The practitioner characteristics include age and gender, location of participants, and experience, background and any relevant qualifications.

5.2.1 Age and gender

There was a wide range in terms of age ranging across the categories from 31 to 80 years with the majority of practitioners in the under 50 years categories. There was a low number of male practitioners (11%).

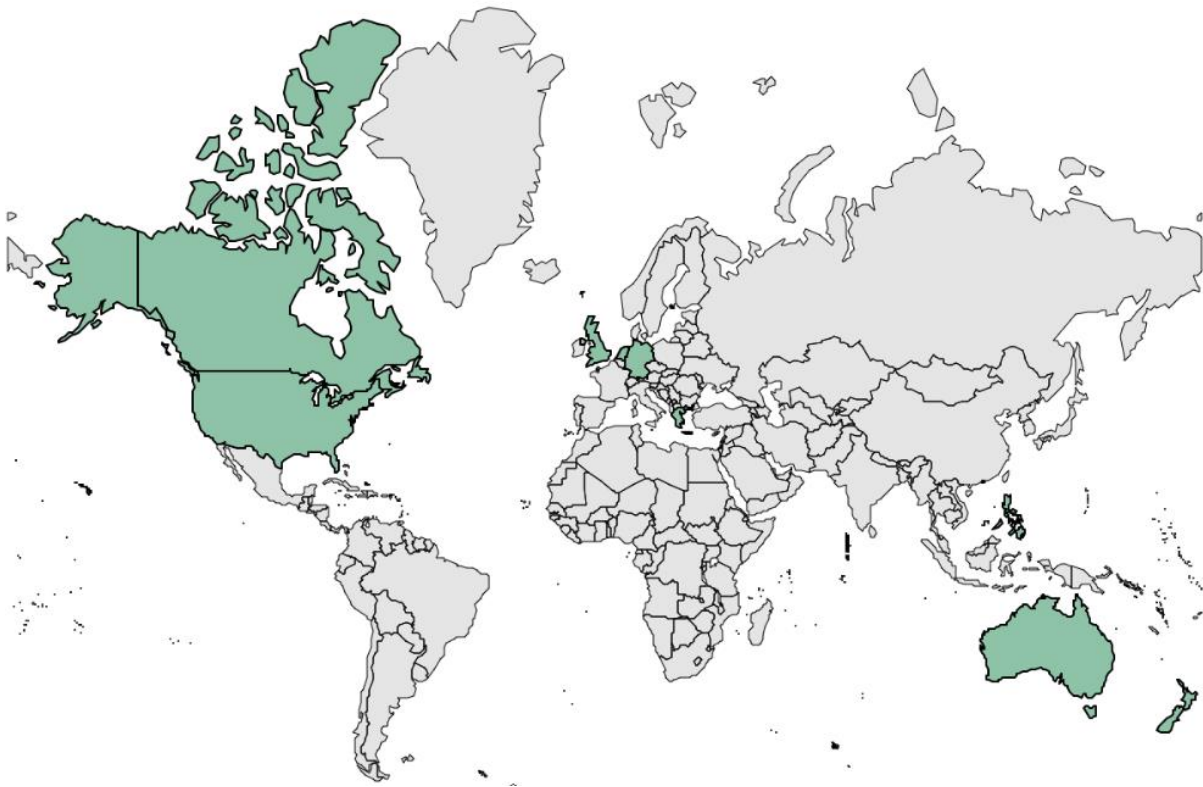
Table 9: Demographic characteristics (N=19)

Age category	Female	Male
31-40	7	1
41-50	4	0
51-60	2	1
61-70	3	0
71-80	1	0
Total N	17	2

5.2.2 Location of practitioners

The practitioners came from a variety of countries as can be seen in figure 3. There were eight practitioners from the United Kingdom (UK). Seven from the first tranche of interviews and one further respondent in the second tranche. Additionally, there were 11 practitioners from the following countries: Australia (n=2); Canada; Germany; Greece; Hong Kong (n=2); Netherlands; New Zealand; Philippines; United States of America.

Figure 3: Location of practitioners



5.2.3 Experience, background and qualifications

Across the 19 practitioners, their number of years' experience working with autistic adults varied. Five to nine years' experience was the most common length of experience among the practitioners (n=8). One practitioner was not able to give a specific timeframe and said that they had "many years' experience working with autistic adults (see table 10).

Table 10: Summary of experience, background and qualifications

Experience working with autistic adults (n=19)	N
<5 years	3
5-9 years	8
10-14 years	3
15-20 years	0
>20 years	4
Unknown	1
Background	
Clinical supervisor	2
Lecturer	2
Qualified teacher	2
Dance trained	2
Psychology trained	3
Unknown	8
Qualification	
PG Diploma	4
Masters	10
PhD	3
Counsellor	2
Alternate route	2

***Some practitioners have more than one relevant qualification**

The 19 practitioners had various backgrounds including clinical supervisor; lecturer; qualified teacher; dance training and psychology training. Psychology training was more commonly reported by three practitioners compared to two who had a dance training background.

The most common qualification was a Masters degree and was reported in ten of the 19 practitioners. Other routes of training included a Postgraduate Diploma; PhD and completing the alternative route to DMP/T registration. The alternative route to obtain DMP registration is based on meeting criteria outlined by the relevant DMP/T association. Aside from the formal DMP/T training/entry to the DMP/T registers,

there were two practitioners who had an additional qualification in CBT and DMT for Special Education.

Practitioners have undergone various training programmes. Therefore, it is important to consider the differences in experience, background and qualifications as this may influence the way that the practitioners practice. It was reported by the practitioners that the philosophies studied within the practitioners training varied and included: person-centred, psychodynamic, integrated-based trainings. Practitioners undertook either a two-year full-time training or three years part-time. All practitioners had a registered practising membership with a DMP/T association within their country of residence.

In summary, the most common age range of practitioners was 31-40, and females was most prominent across the participants. The UK was the most common location and was due to the first tranche of interviews being recruited in this location. A psychology background was most common; however, eight practitioners did not disclose their background prior to DMP training and was therefore unknown. The most common experience level was 5-9 years, and Masters level training was the most common form of qualification.

5.3 CGT process

The analysis of data from the semi-structured interviews utilised a CGT methodology. To aid transparency, this section will illustrate with exemplar data how the process was used before presenting the findings. The analysis involved coding the transcribed interviews and creating initial codes throughout, as demonstrated in table 11. Additionally, memos were included throughout the analytic process to increase the quality in grounded theory (Chun et al., 2019). The memo is a short

note that is written as a way of analysing data and codes earlier in the research process and to make comparisons (Charmaz, 2006). The practitioner quote, initial code and memos can be seen in table 11 below.

During the process of constructing the initial codes, interpretations were used to make meaning from the interview practitioners' quotes. Where the interpretation of the quote was not explicitly clear, memos were added to provide clarity.

Table 11: Example of an initial code construction

Practitioner quotes	Initial code	Memos
Practitioner 13: <i>"And usually it brings us into this momentary of tension and breathing rhythms and that...yeah...that somehow dynamic patterns"</i> .	Breath work	Breath work can be seen here through the practitioner's description of breathing rhythms. The mention of tension and breathing rhythm is much like what is seen in breathing techniques; breathing in and breathing out.
Practitioner 16: <i>"I noticed that breathing helps them, so I do a lot of breathing on the floor"</i> .	Breath work	Experience of breathing work and effectiveness informs practice.
Practitioner 17: <i>"Well, Winnicott. As long as I can remember the transitional object. [Smiles]. Winnicottian. Actually, it's so amazing because I had mostly American training, but the two British: Bowlby, Winnicott. Attachment theory"</i>	Developmental	Developmental theory can be seen here when the practitioner talks about attachment and key theorists that focus on child development
Practitioner 13: <i>"And dance therapy. Dance movement therapy. And so that's why interactional and movement, empathising is so important. You know, in one-one and in a group"</i> .	Analytic holding	Analytic holding is being able to attune and empathise with the client without losing the grounding that the therapist needs (Finlay, 2015)

Moving from the initial code stage to the focused codes required further interpretation to categorise the initial codes against relevant focused codes. An example of how the focused codes were constructed is presented below.

Table 12: Focused codes

Initial code	Focused code	Memos
Breath work	Clinical methods being used by the DMP/T practitioners	Breath work is a strategy to support self-regulation
Image cards	Props	Image cards can enhance self-concept and create a link between what arises in the therapy and personal experiences
Self-regulation	Aims and goals of DMP practice	Anxiety can be prevalent in autistic adults and aiming to use self-regulation strategies can decrease any presenting anxiety

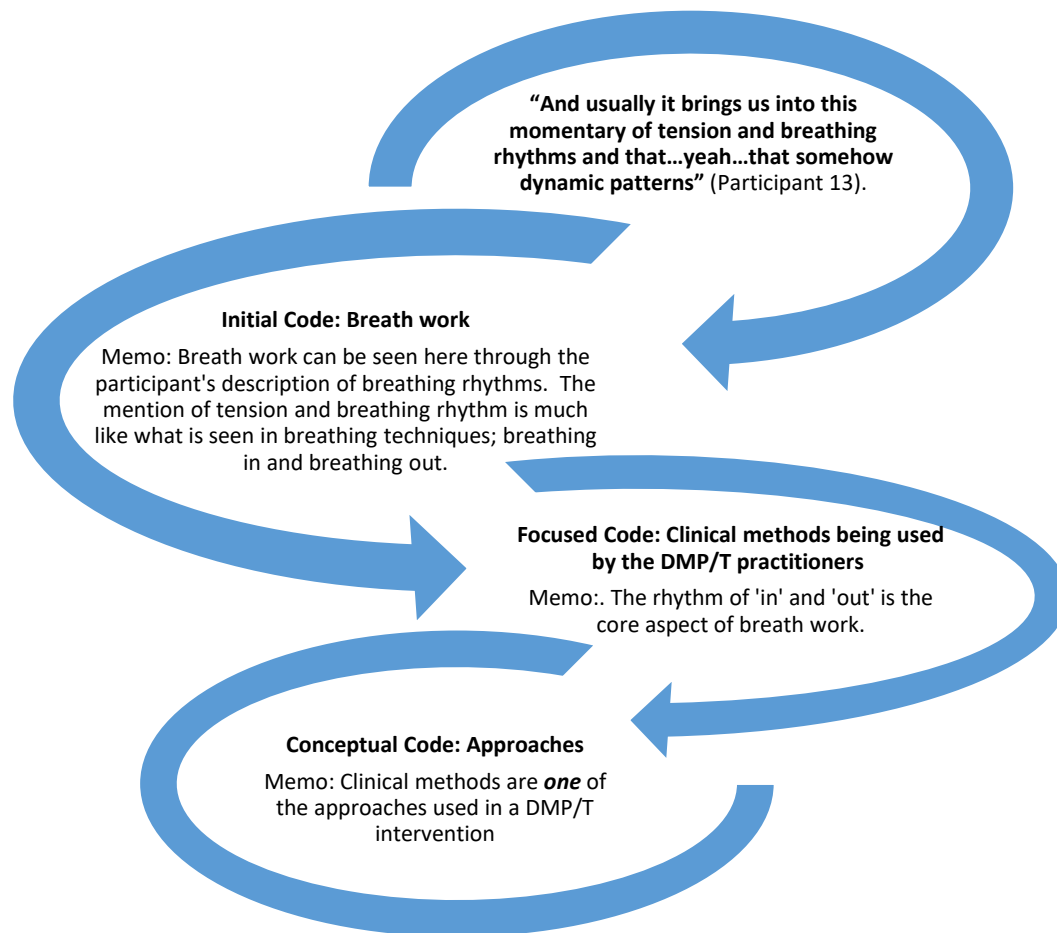
The table above displays three examples of interpretations of focused codes from the initial codes. Memos are presented to clarify the interpretation if needed.

Following the focused code stage, conceptual codes were constructed from categorisation of the focused codes. Table 13 demonstrates this process.

Table 13: Conceptual code

Focused code	Conceptual code	Memos
Clinical methods being used by the DMP/T practitioner	Approaches	Clinical methods are one of the approaches used in a DMP/T intervention

Figure 4: An example of a conceptual category construction



The process of interpreting the practitioner's quotes into initial codes followed by focused codes and then conceptual categories was followed after each interview was conducted. This process then informed the questions asked in subsequent semi-structured interviews. The iteration of the interpretations of the findings from one interview informing the subsequent interview, and the findings from that interview further informing the next interview to be followed as outlined in a CGT approach. The iteration process was followed until data saturation was reached.

5.4 Data saturation

An Excel spreadsheet was used throughout the interview process to document the development of new concepts. The iteration process is an important stage of using a

CGT methodology (Charmaz, 2014), as ultimately the objective of this study is to generate a theory based on DMP practice. The table below presents the process that was conducted to enable the iteration of new concepts being added throughout the interview process and to evidence reaching data saturation.

Table 14: Comparison Excel spreadsheet

Practitioner ID number	New concepts	Repeated concepts	New questions added in the iteration process
16	<ul style="list-style-type: none"> - Well-being - Using sugar to explore light weight - Narrative approaches 	Voice modulation (seen in interview 9)	Are you aware of modulating your voice during sessions with autistic adults?
17	Nothing new seen in the data	No new repetitions	No new questions
18	Nothing new seen in the data	No new repetitions	No new questions
19	Nothing new seen in the data	No new repetitions	No new questions

In table 14, interview 16 introduced three new concepts; well-being; using sugar to explore light weight and narrative approaches. Interview 16 repeated a concept 'voice modulation' seen previously in interview nine. A new question was formulated after repetition of a concept and was then included in subsequent interviews. The question asked 'are you aware of modulating your voice during sessions with autistic adults?'

Lincoln and Guba (1985) suggest that sample size is guided by a criterion of 'informational redundancy' so recruitment stops when no new information is found in subsequent interviews. Table 14 illustrates that for interviews 17, 18 and 19, no new concepts were introduced. Additionally, no further questions or new repetitions of earlier seen concepts were reported. Therefore, it is clear to the researcher, that

data saturation had been met and that no further interviews needed to be conducted. Similarly, Malterud, Siersma and Guassora (2015) used the concept of 'information power', which purports that the level of information power within the sample dictates the sample size as the more information power in a sample, the less participants are needed. The inclusion criteria limiting DMP practitioners to those with at least two years' experience specifically with autistic adults benefited the sample specificity due to them being highly experienced in the client population being researched. The quality of dialogue was enhanced due to the researcher's extensive knowledge and experience, and the use of semi-structured interviews that allowed the researcher to explore answers more thoroughly. Additionally, the CGT methodology immerses the researcher in the data during the analysis process and this was combined with the existing literature from the systematic review to enhance the information power.

Summary

Nineteen practitioners participated in the international interview study from 10 countries. There were 17 female practitioners and two males. There was a range of ages across the age categories from 30 to 80 years, with 31-40 being the most common age category. Eight practitioners were based in the UK, and there was a widespread distribution of practitioners worldwide in 10 countries. Most common number of years' experience was between 5-9 years. There was a variety of background and qualifications, and eight practitioners undertook a DMP training at Masters level. Chapter six will present the findings based on the CGT conceptual codes to explore the components of the DMP intervention. These will then be related to the TiDier checklist in the discussion (chapter seven).

Chapter 6: Findings

This chapter will present the findings to answer the objectives of identifying and describing the DMP intervention using the TiDier checklist (Hoffman et al., 2014), as a supporting reporting framework, and identifying the practices, lived experiences, beliefs and values of DMP practitioners who work with autistic adults. Within this chapter, the findings from the CGT coding will be presented ordered by the three conceptual codes derived from the initial code stage. These will further be related to the TiDier checklist (Hoffmann et al., 2014). At the end of this chapter, there will be a visual representation of the DMP intervention for autistic adults organised within the TiDier checklist. This will be further explored in the discussion (chapter seven).

The practitioner number identifies the order of interview being presented. All practitioners were assigned a number ID to protect identity and allow organisation and clarity to the presentation of the interview extracts. I believe that using pseudonyms may become confusing particularly in the discussion (chapter seven).

6.1 Approaches to DMP practice

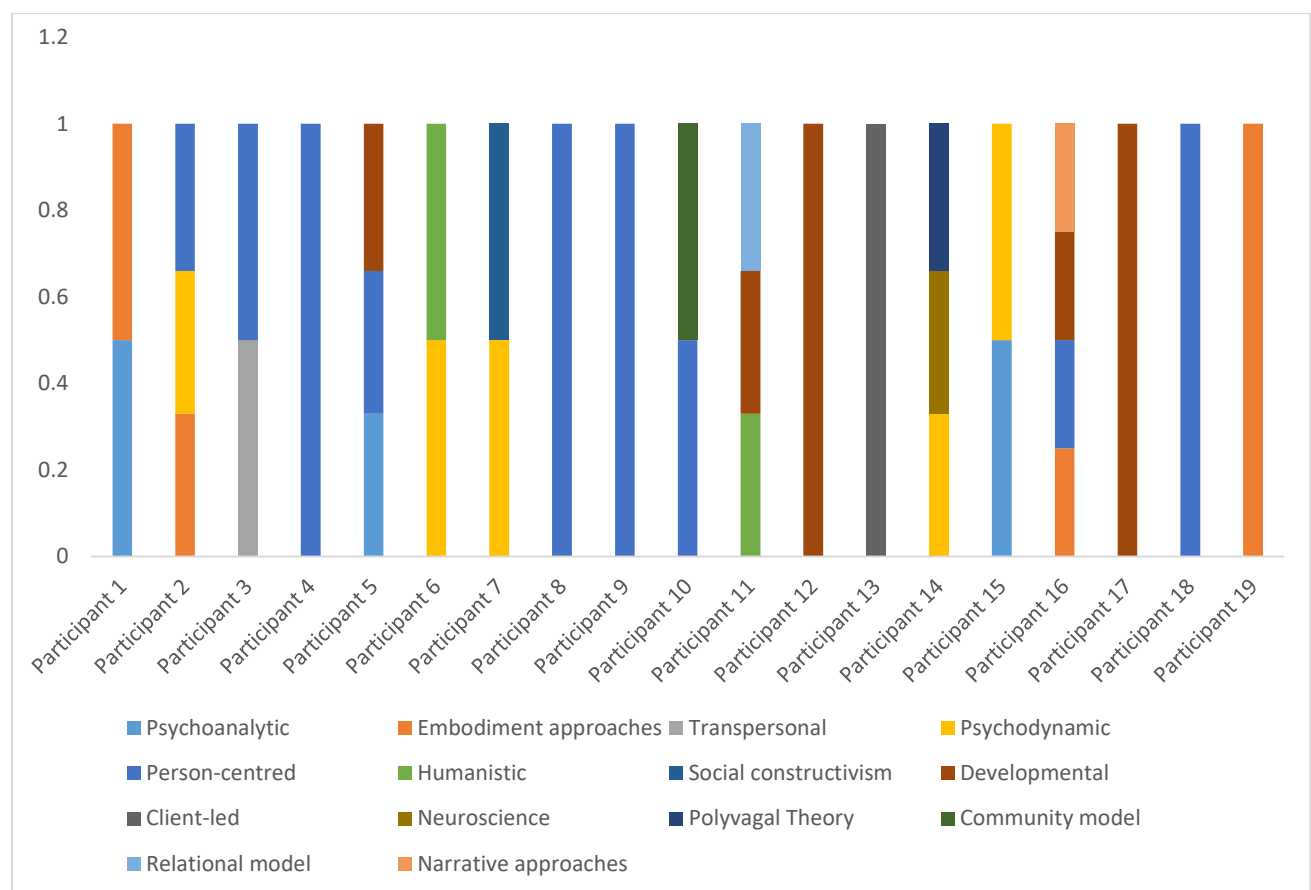
The conceptual category 'approaches to DMP practice' focuses on 'what' the practitioners are doing in their practice and 'how' they are doing it. The conceptual category 'approaches to DMP practice' encompassed multiple factors which shape the practitioner's practice during their sessions and how they structure them. Both the practitioners' theoretical influences and practice-based methods are encompassed. This conceptual category consisted of several focused codes: theoretical approaches; holding and containing; aims and goals of DMP practice; clinical methods utilised; use of props; the duration, frequency and length of sessions; mode of delivery; assessment and evaluation. The findings in relation to

approaches present the initial codes that constructed these focused codes. The first focused code to be presented is ‘theoretical approaches’.

6.1.1 Theoretical approaches

Across the 19 interviewees, a variety of theoretical approaches influenced the way that the practitioners worked. Eight practitioners discussed using only one approach, while others reported using between two and four approaches. The initial codes ranged considerably, as can be seen in figure 5 which visually represents the codes per practitioner.

Figure 5: Theoretical approaches of each practitioner



Across the 19 interviews, it could be seen that in eight interviews a person-centred approach was most common as an influence essential to the intervention. A practitioner stated:

“Well, I’m really into the person-centred approach. I’m trying to understand that deeper and deeper the more I practice”. (Practitioner 3; female; UK)

Another practitioner stated:

“Roger’s is great. You know, being congruent and in the here and now. I love meeting people in the here and now and I love erm...the word congruence. And yeah, the pillars above them, a person-centred approach. I think they are the essentials”. (Practitioner 7; female; UK)

The practitioner above explains what aspects of a person-centred approach that aligns with their practice.

Developmental approaches are reported by six practitioners. One practitioner stated:

“Well, Winnicott. As long as I can remember the transitional object. [Smiles]. Winnicottian. Actually, it’s so amazing because I had mostly American training, but the two British: Bowlby, Winnicott. Attachment theory”. (Practitioner 17; female; Greece)

The practitioner’s work is influenced by attachment theory, which is part of a developmental approach.

Equal to the inclusion of a developmental approach; the utilisation of a psychodynamic approach was reported by six practitioners. One practitioner stated:

“I am actually quite psychodynamic in a way in how I approach things I think”. (Practitioner 6; male; UK)

Another practitioner identifies an aspect of a psychodynamic approach that they use within their work:

“And see that how they might be resonating or be not understanding another person’s feelings. So I do use the idea of erm...countertransference”. (Practitioner 5; female; UK)

Countertransference is an aspect of a psychodynamic approach when the therapist experiences an emotional response towards the individual that they are working with.

In four of the interviews a psychoanalytic perspective is utilised. It was mentioned by one practitioner that:

“I feel like er...well in fact, we did a lot of psychoanalytic work. In relation to dance therapy. So you know, the conscious, the unconscious, I feel like a lot of the behaviour erm...comes from certain place. Maybe the experience...erm...could be the childhood they’ve had. (Practitioner 15; female; Philippines)

Another practitioner stated:

“So, er...I guess I will...if we do inner child. I sometimes do inner child, I will have some theoretical framework of er...psychoanalytic in mind [laughs]. Psychoanalytic...er...for the inner child stuff”. (Practitioner 19; female; Hong Kong)

Both of the examples above discuss the utilisation of a psychoanalytic theory that underpinned their work.

Four practitioners reported that embodiment approaches influenced their work.

“Specific approaches er...have a long-term effect and are part of the client’s everyday lives. Erm...but I think it’s something about embodying the qualities of the interaction and then being able to transfer the qualities in their everyday lives”. (Practitioner 5; female; UK)

Aside from the aforementioned approaches, there were other approaches that influenced the practitioner’s work that appeared only once each in the findings. These approaches included: transpersonal; social constructionism; community model; relational model; neuroscience; polyvagal theory and a narrative approach.

The focused codes for the theoretical influence category were theoretical approaches and underpinning philosophies. The approaches and underpinning philosophies identified in the initial code phase were essential to the intervention and impacted on how it was practiced. Connecting the theoretical approaches and philosophical underpinnings to the memos, it could be seen that there were some overlaps between theories such as a psychodynamic approach used in clinical

notes; yet a person-centred approach utilised for the intervention with the client. The researcher included a memo which stated *“the thinking leans more towards a psychodynamic approach, particularly when analysing the therapy, but the actual practice is more person-centred focused”*.

In the theory building stage of the conceptual category ‘approaches to practice’, many overlaps were seen in how the practitioner combines more than one approach. The ‘why’ category of the theory that is essential to the intervention reported that even though a person-centred approach was considered most common that is essential to the intervention when working with autistic adults; 11 interviews reported that a multimodal approach is even more common in DMP practice. One practitioner commented:

“I think I am an integrative therapist”. (Practitioner 9; female; UK)

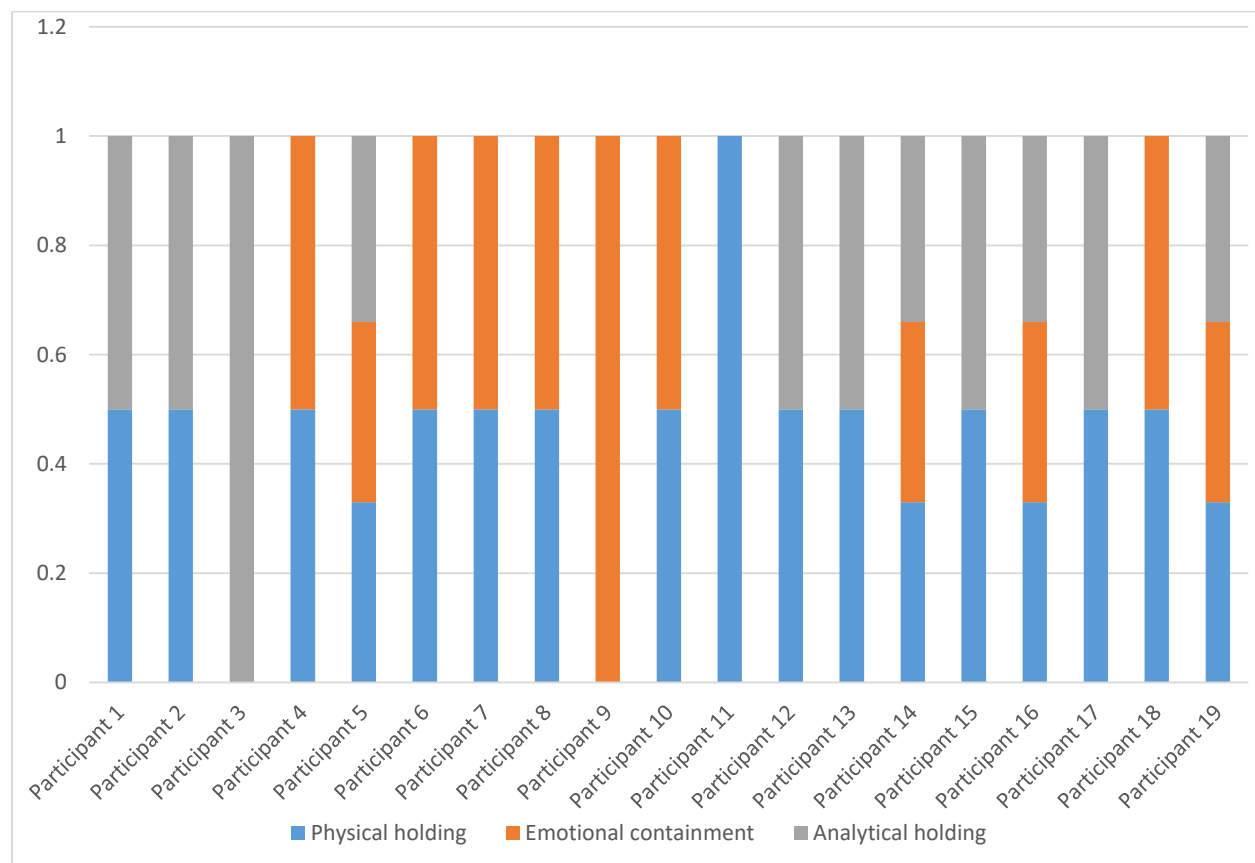
The multimodal approach made up many different approaches that influenced the work and were considered as essential to the intervention. Combining the codes extracted from the data, it was found that a multimodal approach is most commonly used for autistic adults and seen in 11 practitioners.

In summary, the utilisation of multimodal approach was most commonly seen and reported by 11 practitioners. A person-centred approach was the most common singular approach used within eight practitioners’ work. A developmental, as well as a psychodynamic approach was the second most common approach and reported by six practitioners for each. A psychoanalytic, as well as an embodiment approach was reported by four practitioners each. The type of theoretical approach used by the practitioner, may have influenced the way that sessions were held and contained. Theoretical approaches aligns with the ‘why’ item of the TiDier checklist (Hoffmann et al, 2014).

6.1.2 Holding and containing

The focused code ‘holding and containing’ was informed from ‘physical holding’, ‘analytic holding’, and ‘emotional containment’. How a supportive and safe environment was created by the DMP practitioner was varied. Across the 19 interviews, there are many considerations that the practitioners made in how they provided a supportive and safe environment. Figure 6 presents the number of initial codes that appeared in each practitioner interview. Three practitioners spoke of using one approach, 12 of two approaches, and four practitioners discussed three approaches.

Figure 6: Facets of holding and containing



Examples included:

“Well, er...physical holding is good you know. Erm...using props and wrapping myself around. Just wrapping yourself around with a scarf or a blanket”. (Practitioner 14; female; New Zealand)

‘Analytic holding’ was described by one practitioner as:

“Stepping into their frame of reference, which I know is much more a psychotherapy concept than it is a psychologist, psychiatrist, social, you know, it’s definitely a step in someone’s frame of reference”. (Practitioner 4; female; UK)

The final focused code was ‘emotional containment’. A practitioner gave an example as:

“Actually the containment, so I think the development of the relationship with the therapist and that individual is really important. Not just that someone in the group, but as an individual, so they can come back to that. And erm...I think there are lots of triggers. Again for somebody on the autism spectrum there are lots of triggers that are not OK. Where do I go when that is not OK? I go and I be by the therapist. Contain them”. (Practitioner 2; female; UK)

Across the interviews, it can be seen that ‘physical holding’ is used most commonly, appearing in 17 of the 19 interviews. A practitioner states:

“So self-regulation, again you know, things like pressure, and you know touch. Er...I think are very important self-regulation...erm...activities that we as dance therapists can er...use. Especially for self-harming and er...autism”. (Practitioner 17; female; Greece)

The practitioner said how physical holding using touch and pressure work is important in their work, as well as reporting why it is important for autistic adults.

The practitioner mentioned that the act of ‘physical holding’ using touch helps to manage self-regulation for individuals who have autism.

In the interviews, the practitioners comment on the relational aspect of holding as well as the physical needs and emotional state; in other words, ‘analytic holding’.

‘Analytic holding’ was spoken of by eleven of the 19 practitioners. A practitioner stated:

“The intention of addressing another person or the intention of ending non-verbal attunement even with adults, but it’s also quite hard for the non-autistic partner to somehow relate to what the partner with autism is doing. So finding out about the person, as adults, erm...from my experience helps them to communicate to get a meet in communication about ‘look, this is the way that I’ve found out about how I am doing things”. (Practitioner 12; female; Netherlands)

In this example the practitioner can be seen attuning to their client so that there can be a way of meeting them in the therapist-client dyad.

As well as ‘holding’; ‘emotional containment’ is an important aspect of DMP practice, and this was highlighted by eleven practitioners. A practitioner stated:

“And I think this place and the role that I worked, the background the clients had, whether they’d experienced a contained environment ever in their lives. I believe in the quality of the relationship. So how much this can happen as much as possible because obviously it’s a relationship that sometimes need the boundaries to be expressed clearly”. (Practitioner 5; female; UK)

It can be seen by practitioner five that through boundaries being created; adequate support was given to further opportunities.

Although ‘emotional containment’ like ‘holding’ is an aspect of therapy that is apparent with the wider population; as practitioner 17 highlights, ‘emotional containment’ helps in building safety and predictability. Another practitioner stated:

“If someone doesn’t come to my session as well, I always try for five minutes of putting my head in the door and saying hello, I hope you’re OK. Maybe you’ll come and see me next week. With that particular patient he won’t usually speak and will nod or shake his head, which is quite a big thing for him if he’s had an incident to get that head through the door and make an acknowledgement is massive”. (Practitioner 2, female, UK)

The example above shows how the practitioner was able to provide emotional containment to encourage an acknowledgment even when it may be challenging for that individual with events that have happened in their day.

Although ‘physical holding’ was most commonly seen in the interviews; the prevalence of ‘analytical holding’ and ‘emotional containment’ was such that it could

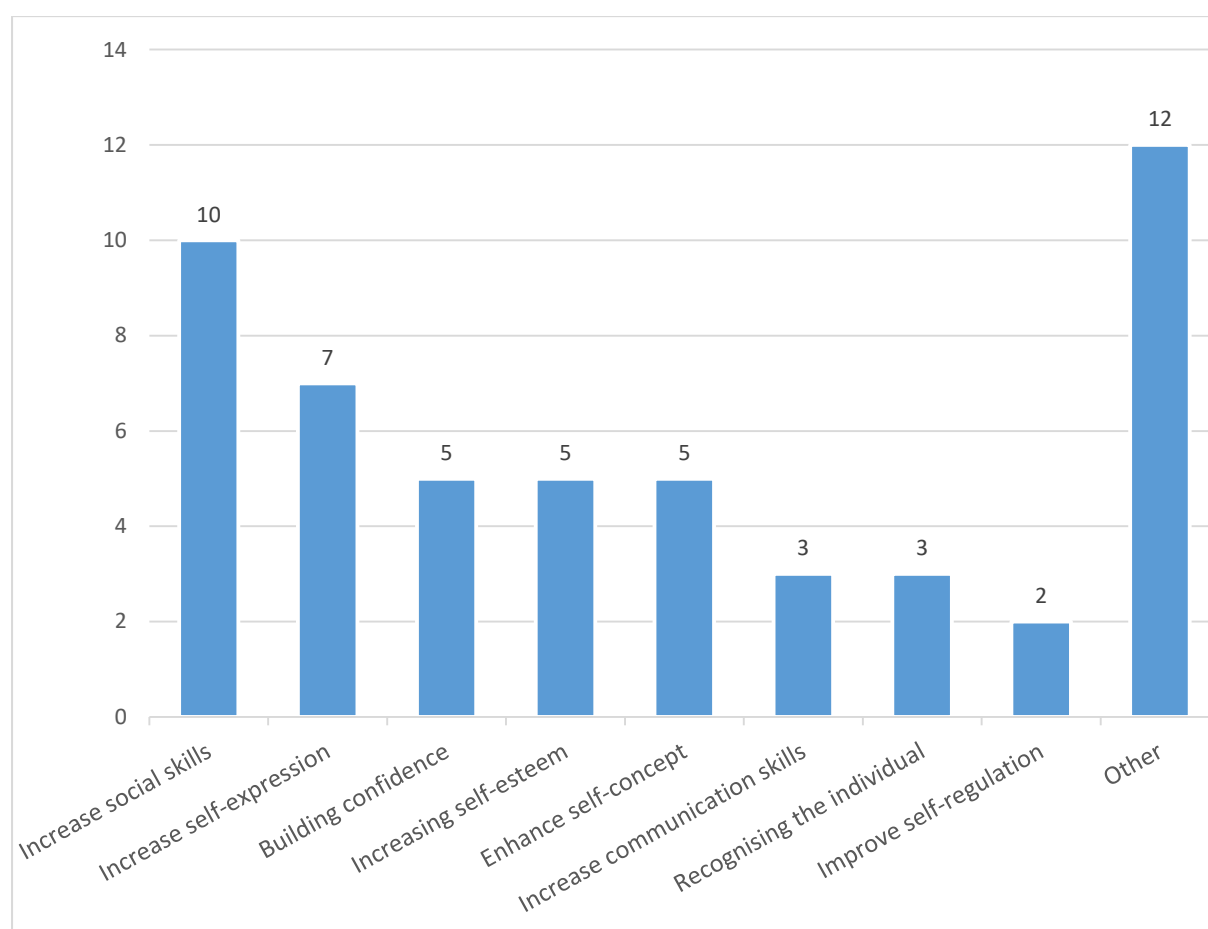
not be said that one aspect was more essential. In fact, as seen in figure 6, most of the 19 interviewees reported more than one form of holding or containment was used in their work. Holding and containing aligns with the 'what' item of the TiDier checklist (Hoffmann et al., 2014).

In summary, it was notable in this section that 'physical holding' was most common in relation to the focused code 'holding and containment'. Across the 19 interviews, 17 practitioners commented that the use of touch and pressure work is an aspect of 'physical holding' that helps autistic adults self-regulate. It was identified by eleven practitioners that they used 'analytic holding' to attune and empathise with their clients. 'Emotional containment' was mentioned by eleven practitioners. One practitioner highlighted how 'emotional containment' created safety and predictability for the autistic adults that they worked with. Creating safety and predictability may be an aim and goal of the therapeutic process.

6.1.3 Aims and goals of DMP practice

The practitioners talked about the aims and goals of DMP practice that are utilised within their practice. The following section examines the theoretical influences and practice-based methods that underpinned the practitioners' aims and goals of DMP practice utilised in their work. The focused code 'aims and goals of DMP practice' included numerous initial codes, which present some clear similarities across the interviews and these are presented with the aim of identifying how practitioners work. Figure 7 displays the aims and goals of DMP practice as described by practitioners in the 19 interviews.

Figure 7: Aims and goals of DMP practice



The most common aim and goal that was reported by ten practitioners was increasing social skills. Increasing social skills through establishing a connection between the therapist-client is a goal that would reduce periods of isolation as highlighted by practitioner 17.

“I feel like my sessions address social isolation and issues that surround it”.
(Practitioner 17; female; Greece)

The practitioner highlighted the importance of social skills and the effect that barriers can have when autistic adults face challenges with social skills. Another practitioner mentioned:

“So for autistic people I would say like increase social connection”.
(Practitioner 19; female; Hong Kong)

Aside from social skills, seven practitioners discussed that the next main aim and goal of DMP practice was to 'increase self-expression'.

"In one of the ways and an important point, where is, to let them have tools to express themselves because lots and lots of going on inside. And lots of ideas and thoughts". (Practitioner 8; female; Canada)

Another practitioner spoke of increasing the tools to self-express effectively.

"I also find that often I work on expanding movement vocabulary. Erm...through improvisation. So increasing your toolkit for self-expression effectively". (Practitioner 16; female; Australia)

Both examples talk about self-expression being an explicit aim and goal of DMP practice for the individuals that they work with. The practitioners stated that supporting the client to self-express is an important aim within their work.

Building 'confidence' and 'self-esteem' and enhancing 'self-concept', were each reported in five of the 19 interviews. One practitioner stated:

"To improve social skills and communication and to build confidence". (Practitioner 2; female; UK)

It appeared that through increasing social skills, the individual's confidence also improved. Another practitioner supported this claim and commented:

"Developing communication and social skills. Developing confidence and self-esteem". (Practitioner 16; female; Australia)

The above two examples highlight how developing confidence and self-esteem are explicit goals within DMP practice.

Establishing 'self-concept' appeared as an aim and goal reported by five practitioners, and that is equally common to 'confidence' and 'self-esteem'. A practitioner stated that it is important for individuals to be able to:

"Connect to the environment, as well because as you connect to your environment, you become more self-aware around your body as well. Really powerful". (Practitioner 9; Female; UK)

In line with person-centred thinking, self-concept includes self-image such as how a person sees themselves, as well as physical characteristics. It appears that the building of self-awareness and the physical characteristics of the body/image, contributes to the individual understanding their identity. Another practitioner stated:

“Self-touch, all these things, when one has to do it, in order to remind oneself that one exists”.

(Practitioner 17; female; Greece)

For the individuals to develop self-concept (knowing who they are) and identifying the physical characteristics, self-touch is used to gain an understanding that they physically exist and enhance body image. The development of self-concept builds an awareness that they have a body.

Three practitioners mentioned that the aim and goal of DMP practice within their work was to ‘increase communication skills’. A practitioner stated:

“From my experience it helps them to communicate; to [finding] a [way] to meet in [the] communication. [It is] about look, this is the way that I’ve found out about how I am doing things. How can we manage to interact differently than we used to once [before]”. (Practitioner 12; female; Netherlands)

Potentially an aim associated with communication is co-created opposed to validating the individual’s communication preference as seen in the above example.

Further aims and goals of DMP practice reported by three practitioners was in ‘recognising the individual’. Through recognising the individual, the therapist is giving acceptance to the individual and without judgement. Acceptance and non-judgement are two core principles of a person-centred approach. As seen in the previous aims and goals of DMP practice, social skills, self-expression and confidence. A practitioner stated:

“It’s about being seen, it’s about being noticed”. (Practitioner 3; female; UK)

The aspect of being seen is a core element of a person-centred approach. The practitioner is describing how it is important to see and understand the individual opposed to the individual's label 'autism'.

Another practitioner comments that 'recognising the individual' is an aim and goal within their practice and stated:

"But then you know, something around people to fly higher because they have dreams. And to help them be closer to their dreams; somewhere because we could see [and] find interest in other people and other things".
(Practitioner 7; female; UK)

The therapist recognised that the individual has dreams and that is part of the therapy; to focus on their dreams. Similar to practitioner three, there is an indication that the therapist is able to see beyond the diagnostic label of autism. The aim and goal of practice was to offer an approach which is appropriate to the individual, as well as meeting their specific and individual needs.

Practitioner 12 spoke of:

"What I find in the overlap is...that I regularly have to somehow sort out with the client a kind of, can we...can we see what is underneath the problem? Or...so that there are two sides. One is to...with autism we look into developmental patterns, right? Their overload time may have changed slightly, but usually people can indicate quite well to my experience, and in this population. And so again, it's outpatient clients. They usually can... once the therapy process, can usually quite well indicate what they really find is a pattern throughout their life". (Practitioner 12; female; Netherlands)

The above comment demonstrate that they need to understand what is underneath the individuals' 'problem'. To do this, the practitioner needs to understand the individual, who they are, and what is going on in their life.

Recognising the individual highlighted the person-centred values reported by practitioners and in putting the person before the label. Seeing the person is further expanded on later in this chapter under the focused code 'language and

terminology'. Person-first language is discussed including the importance of seeing the individuals' specific and bespoke needs. The background (chapter one) discussed the context of person-first and identity-first language.

An additional aim and goal of practice that was reported by two practitioners was to 'improve self-regulation'. One practitioner stated:

"There's something about that regulation of behaviour. I think fundamentally, er, I spend a lot of time laughing with children. Erm, and playing. Fundamentally it's about happiness. If you can learn to be happy with just things are, with no reward or particular tool or toy, then I think that your ability to find meanings and to be ready to learn will be massively increased".
(Practitioner 6; male; UK)

The practitioner talked about finding a contentedness without the need for any particular tool or toy and how this helps the individual to self-regulate, as well as use their imagination. Practitioner 17 talks about self-regulation:

"If we don't help with self-regulation, what is the point? You know. I don't see that is, and of course, it's the most difficult for me [laughs]. Self-regulation for me, is part of wellbeing also". (Practitioner 17; female; Greece)

It is believed that using self-regulation is a coping strategy that can be related to the behaviour and/or well-being. The two examples above highlighted that improving self-regulation needs to be taught to enhance the contentedness and general well-being, which ultimately impacts on the behaviours being presented.

The focused code named 'other' contained thirteen responses that only one practitioner contributed. These included 'to have equality'; 'limiting distress'; 'place of belonging'; 'processing of trauma and emotional difficulties'; 'avoid going into a restrictive environment'; 'engage within the community'; 'increase safety'; 'improve well-being'; 'developing relationships and connections'; 'increasing imagination skills'; 'to encourage playfulness'; 'increase ability to empathise'. No further consideration was given to the above codes since there was no duplication across practitioners.

Aims and goals aligns with the 'why' item of the TiDier checklist (Hoffmann et al, 2014).

In summary, the most common aim and goal across the 19 practitioners was to 'increase social skills'. Some of the practitioners commented about specific areas in relation to social skills including listening, eye contact and turn-taking. Other common aims and goals of practice included 'increasing self-expression'; 'building confidence'; 'self-esteem'; 'enhance self-concept'; 'increasing communication skills'; 'recognising the individual'; and 'improve regulation'. Aside from the practitioner's aims and goals of DMP practice, the approaches to DMP practice code also included the clinical methods that they utilised in their work which will be presented next.

6.1.4 Clinical methods utilised

Under the conceptual code 'approaches to DMP practice', one of the focused codes was 'clinical methods utilised'. Following agreement between the practitioner and the client agree the aims and goals of DMP practice, the clinical methods are considered. The clinical methods from the researcher's interpretation are the therapeutic techniques that are used within a practitioner's work. An example of a clinical method would be mirroring. One practitioner says of mirroring:

"I'm mirroring all the time. Erm...because that's part of understanding someone else's frame of reference". (Practitioner 3; female; UK)

Clinical methods is one of the fundamental aspects of a DMP intervention. A question based on what clinical methods were used was included from interview one and refined through the CGT iteration process.

Table 15 presents the initial codes in relation to the clinical methods utilised and the structure used by the 19 practitioners are also included in the table below.

Table 15: Clinical methods

<i>Practitioner</i>	<i>Clinical methods</i>	<i>Structure</i>
1	<ul style="list-style-type: none"> • Affect attunement 	<ul style="list-style-type: none"> • Warm-up including stretching leading to movement • Improvisation • Cool down • Check-out
2	<ul style="list-style-type: none"> • Affect attunement • Breathing exercises • Improvisation • Mirroring • Play • Story and narratives • Massage 	<ul style="list-style-type: none"> • Beginning (greeting) • Middle (Extending movement phrases) • End (breathing techniques)
3	<ul style="list-style-type: none"> • Affect attunement • Breathing techniques • Kinaesthetic empathy • Mirroring 	<ul style="list-style-type: none"> • Beginning • Middle • End (Massage ritual)
4	<ul style="list-style-type: none"> • Mirroring • Play • Social stories • Story and narratives 	<ul style="list-style-type: none"> • Beginning (no specific structure identified) • Middle • End
5	<ul style="list-style-type: none"> • Affect attunement • Mirroring • Verbal reflection 	<ul style="list-style-type: none"> • Unstructured
6	<ul style="list-style-type: none"> • Games • Massage • Mirroring • Play • Story and narratives • Touch through deep pressure work 	<ul style="list-style-type: none"> • Beginning (warm-up and finding ways to connect) • Middle (development of themes which is client-led) • End (cool down)
7	<ul style="list-style-type: none"> • Circle time • Mirroring 	<ul style="list-style-type: none"> • Beginning (Check-in) • Middle (development of themes) • End (warm-down)
8	<ul style="list-style-type: none"> • Baum-circle • Breathing techniques • Desensitisation • Mirroring • Story and narratives • Synchrony 	<ul style="list-style-type: none"> • Beginning (stretching) • Middle (development of themes) • End (breathing exercises as closure ritual)
9	<ul style="list-style-type: none"> • Imagery • Metaphors • Mirroring 	<ul style="list-style-type: none"> • Beginning (warm-up) • Middle (development of themes)

	<ul style="list-style-type: none"> • Story and narratives 	<ul style="list-style-type: none"> • End (verbal reflection and tidying away props to help with the closure transition)
10	<ul style="list-style-type: none"> • Chace-circle • Massage • Mirroring • Story and narratives 	<ul style="list-style-type: none"> • Beginning (Chace-circle) • Middle (development of themes) • End (stretching and massage)
11	<ul style="list-style-type: none"> • Baum-circle • Chace-circle • Mirroring • Story and narratives • Verbal reflection 	<ul style="list-style-type: none"> • Beginning (Movement and art for greeting) • Middle (Familiar activities weekly selected randomly out of a hat) • Ending (verbal reflection)
12	<ul style="list-style-type: none"> • Affect attunement • Phrasing • Touch 	<ul style="list-style-type: none"> • Unstructured
13	<ul style="list-style-type: none"> • Affect attunement • Breathing exercises • Imagery • Massage • Mirroring • Rhythm • Touch 	<ul style="list-style-type: none"> • Beginning (ritual of taking shoes off) • Middle • End (ritual of putting shoes back on)
14	<ul style="list-style-type: none"> • Affect attunement • Imagery • Metaphors • Rhythm 	<ul style="list-style-type: none"> • Beginning (using chairs) • Middle (using visuals to provide structured activities) • End (Sitting down in a chair as part of a closure ritual)
15	<ul style="list-style-type: none"> • Affect attunement • Games • Imagery • Mirroring • Story and narratives • Touch 	<ul style="list-style-type: none"> • Beginning (no specific structure identified) • Middle • End
16	<ul style="list-style-type: none"> • Affect attunement • Breathing exercises • Improvisation • Mirroring • Rhythm • Role-play • Story and narratives • Touch 	<ul style="list-style-type: none"> • Beginning (warm-up) • Middle (improvisation) • End (various closure rituals)
17	<ul style="list-style-type: none"> • Affect attunement • Grounding techniques • Mirroring • Rhythm 	<ul style="list-style-type: none"> • Unstructured

	<ul style="list-style-type: none"> • Touch 	
18	<ul style="list-style-type: none"> • Breathing exercises • Chace-circle • Metaphors • Play • Rhythm • Story and narratives • Touch 	<ul style="list-style-type: none"> • Beginning (greeting in chairs) • Middle • End (goodbye ritual)
19	<ul style="list-style-type: none"> • Affect attunement • Breathing techniques • Chace-circle • Grounding techniques • Mirroring • Story and narratives 	<ul style="list-style-type: none"> • Beginning (Warm-up and grounding techniques) • Middle • End (Breathing techniques and cool down as part of the closure to the session)

Mirroring appeared as the most commonly used clinical method that practitioners use with autistic adults. It was reported by 12 practitioners that they use this clinical method within their practice. A practitioner discussed:

‘To come alongside them and to get a shared interaction through mirroring, that’s a really sort of key, erm, weight of the therapy’. (Practitioner 2; female; UK)

In this study, due to the high number of practitioners using mirroring within their work, and recognising that mirroring is a common clinical method used in the wider population, the researcher included a memo asking the question “why is mirroring used for autistic adults?” The question was included after interview number two to explore why mirroring was used. An example of ‘why’ was stated by one practitioner:

“Even with the way that they talk or sit down in the room and mirroring together. I’ll say ‘I feel like this is a bit too close. What do you think?’ (Practitioner 15; female; Philippines)

The reason why practitioners used mirroring was to build awareness of others.

In addition to mirroring, a similar clinical method was commonly used; affect attunement. It was reported by eleven practitioners that they used ‘affect attunement’. One practitioner commented:

“To attune to somebody else can be very therapeutic and rewarding. Erm...often I find a load of people I work with are not very, don’t have a lot of body awareness. So awareness of what’s where and how my body moves and what my movement preferences are”. (Practitioner 16; female; Australia)

Of the 19 practitioners, 18 used either mirroring or affect attunement or both within their work. Therefore, these clinical methods appear in the data as commonly used in DMP intervention with autistic adults.

Further common clinical method across the 19 practitioners was story and narratives. It was reported by 11 practitioners that ‘story and narratives’ were used in their work.

“If they were able to create this imaginary, erm, story through props and pictures, and perhaps just arrange media available to them. Erm, I guess because you work on a character one week and you work on a task another week, you’re more able to produce some lovely work. But then I guess with patients who are wrote about, it really did become apparent that the story was about himself and erm...he really grew in confidence” (Practitioner 2; female; UK)

Through the story and narrative, the practitioner stated that once there was self-recognition for the individual; confidence levels grew. This reflects that the individual was able to create a story and that the narrative in the story was about themselves. The building of confidence levels can be seen to be due to the individual identifying the character in the story with a narrative about themselves.

It was reported by seven practitioners that they used breathing techniques in their work. One interview extract included:

“How he can place himself in a situation of safety. And that may be through lying on the floor with a pillow and closing his eyes and then focus on his breathing”. (Practitioner 2; female; UK)

The example seen from the practitioner above suggests that breathing can be focused on if the individual is feeling safe. Another practitioner stated:

“And literally breathing. Using imagery for the breath. Breath control”.
(Practitioner 13; female; USA)

The practitioner above comments that they use breathing in their work and also stated ‘how’ they use this clinical method.

Chace-circles were reported by six practitioners. One practitioner stated:

“So erm...that’s a small example of how someone is invited to express their creativity where they bring a move that is expressing something of themselves. So, I guess that would be called a Chace-circle. And what we would try and do there is encourage people, especially those who might be wanting to do the same thing each time to be exploring developments of that”.
(Practitioner 10; female; Australia)

This quote shows that the inclusion of a Chace-circle can provide a structure for autistic adults so that it creates a sense of predictability and familiarity. Another practitioner stated:

“The group that I have described have circle time, improvisation and then circle time again, and then we sit down and check out as a group”.
(Practitioner 7; female; UK)

This was the only UK-based practitioner who explicitly stated that they used circle time within their work. The term Chace-circle was not used by the practitioner, although the method of circle time is like a Chace-circle. The Chace-circle was used by five international practitioners.

Rhythm is another clinical method used and was reported by five practitioners. Like the previous clinical method, Chace-circle; rhythm is reported by international practitioners. In this instance, no UK-based practitioners explicitly reported using rhythm within their work as a clinical method. A practitioner stated:

“I usually like to start with something rhythmic that’s, that if I am working in a group. That everyone can connect to. So a clear set rhythm. You know”.
(Practitioner 13; female; USA)

Rhythm can bring out a playfulness when people are moving and vocalising together, and that this may help with connecting to one another. Another five practitioners reported that play is an important method used in their work. An extract from practitioner 19 reported that:

“More play activity based, to let them...and through play gradually add more movement, and then have what we want them to approach”. (Practitioner 19; female; Hong Kong)

A less common method was imagery seen in four of the 19 interviews.

“Oh...imagery, yes. Imagery yes. Narrative...a little bit. Yes. Mmm, hmm. A little bit of narrative. [Nods head]. But you know, I would say a combination of narrative and imagery. Mmm, hmm”. (Practitioner 13; female; USA)

Like imagery, is metaphor, which was seen in three interviews.

“And then we will create this metaphor for them to express their thinking and feeling”. (Practitioner 19; female; USA)

Both methods discussed provided a way for autistic individuals to express their emotions. The use of imagery and metaphors are only notable in the international-based interviews and are not reported in any of the seven UK-based interviews.

Aside from imagery and metaphors, four practitioners reported using massage. A practitioner stated:

“Maybe just holding themselves. Erm...just calming. Maybe massage. Pressing and touching, legs, feet is also common. Erm...relax”. (Practitioner 13; female; USA)

The practitioner stated ‘why’ they use massage in their work, which is to create a calming effect and to help the individual feel relaxed. It can be seen in table 15 that two practitioners were based in the UK and two based internationally.

Play was used in three practitioners’ work. One practitioner stated:

“I use a lot of play”. (Practitioner 2; female; UK)

Another practitioner stated:

“Well, play...even when we say instruments, you play instruments. When we are talking about props, they are like toys”. (Practitioner 17; female; Greece)

The practitioners’ stories demonstrate how play can take many forms; music making, or props used as toys. It was reported by practitioner 17 that play can provide symbolism to the emotion felt and stated:

“It was a lot of destructive energy and I brought all my er...toys. My soft toys, you know. Teddy bears that I had. I brought them for these individuals. And think within a month there was nothing left. Nothing. They just tore them, pulled them. You know. So, and to me, this is symbolic. You know that erm...to allow someone to be destructive in a safe way and bring out the tension”. (Practitioner 17; female; Greece)

Play can also be seen as a way for the individuals to process emotions, and toys such as teddy bears can be used as a transitional object to project these emotions onto.

There were various methods used only by a small number of practitioners.

Grounding techniques were used by two practitioners. One practitioner spoke of using grounding techniques help the individual to reduce their energy levels and to contain strong emotions such as anger or frustration:

“So to wind down energy, to contain their anger or frustration of emotion, to help them to, to feel like they are grounding and help them to create er...a physical space”. (Practitioner 19; female; Hong Kong)

Two practitioners used Baum circles in their work, although more practitioners may be using this clinical method without knowing the theoretical reference that the process is being referred to. One of the practitioners stated:

“Absolutely. And I learned about Baum circles after I started to practice it. [Laughs]. For some years after [laughs again]. So a theoretical frame and everything was like clear. Like...oh. [Smiles]. That’s what I am doing; that’s wonderful”. (Practitioner 8; female; Canada)

Two more practitioners reported that they incorporate games within their work which can be considered part of play, although the structured nature of the games described by practitioners in the interviews also led to a separate initial code being necessary. A practitioner said:

“Erm, but essentially, playing games. But either, structured games if that is where the individual is at or open, fluid imaginative gaming. When I say gaming I don’t mean online type stuff. Erm, and that’s another thing that I spend a lot of time doing”. (Practitioner 7; female; UK)

Practitioner 15 stated:

“I use games as well. I like to use games. Erm...I had one game in my session room that is like a memory game. A facial expression memory game”. (Practitioner 15; female; Philippines)

Games were used for different purposes in the practitioner’s sessions as can be seen in the above examples. The UK-based practitioner stated how they used games as a way of developing imagination skills. It was reported by the international-based practitioner that games were used to increase memory and self-expression. To international-based practitioners used improvisation. Two practitioners included improvisation within the sessions. One practitioner stated:

“I use a lot of mirroring and movement improvisation. They are the kind of staples to the way that I work”. (Practitioner 2; female; UK)

Whilst another participated reported that improvisation was used within their work as it increased self-expression:

“I also find that often I work on expanding movement vocabulary. Erm...through improvisation. So increasing your toolkit for self-expression effectively”. (Practitioner 16; female; Australia)

The last clinical method to be reported by at least two practitioners was verbal reflection. A UK-based practitioner said:

“When we sat down for a verbal reflection of the process, so it was almost at the end of the session, and erm...it was a group of five residents and one of

them just didn't like talking about what had happened and they had the option of not talking about it anyway. But the rest were chatting and they were saying things about what was happening and because that was also part of how they had defined the session and how they would like to use their words as well as their movements". (Practitioner 5; female; UK)

The comment made from the above practitioner suggested that verbal reflection was used as part of the closure section of sessions. An international-based practitioner mentioned that verbal reflection was used, although with 'higher functioning' adults:

"Erm, I mean, I guess it's the verbal reflection at times with the higher functioning adults who were definitely those things about. OK, having anxiety or feeling depressed or something like that might come up". (Practitioner 11; female; Germany)

There was one practitioner each who used social stories; kinaesthetic empathy; desensitisation; synchrony; phrasing. For example, one practitioner stated:

"But basically, so yes, we do this group movement and synchrony".
(Practitioner 8; female; Canada)

Most of the clinical methods which occurred with one practitioner; were UK-based practitioners. The only international-based clinical method that occurred on one occasion was phrasing.

There were 16 participants who structured their sessions and the remaining three used no structure. Where the participant reported that sessions are structured with a clear beginning, middle and end; on occasions details are not disclosed regarding what each section of a session contained.

In summary, the most common clinical methods were mirroring and affect attunement. Of the 19 practitioners, 18 used either mirroring or affect attunement or both within their work. Story and narratives were a common clinical method reported in eleven practitioners. Rhythm, imagery and metaphor are clinical methods that are only explicitly stated by non-UK practitioners. Most of the clinical methods which

occurred with one practitioner; were UK-based practitioners and included kinaesthetic empathy; desensitisation; synchrony. Two international-based practitioners each included phrasing and role-play. When the practitioners described the clinical methods that they used they mentioned how props may be used as part of the clinical method employed. An example could be seen in:

“Grounding through the props, but they also increase playfulness”.
(Practitioner 16; female; Australia)

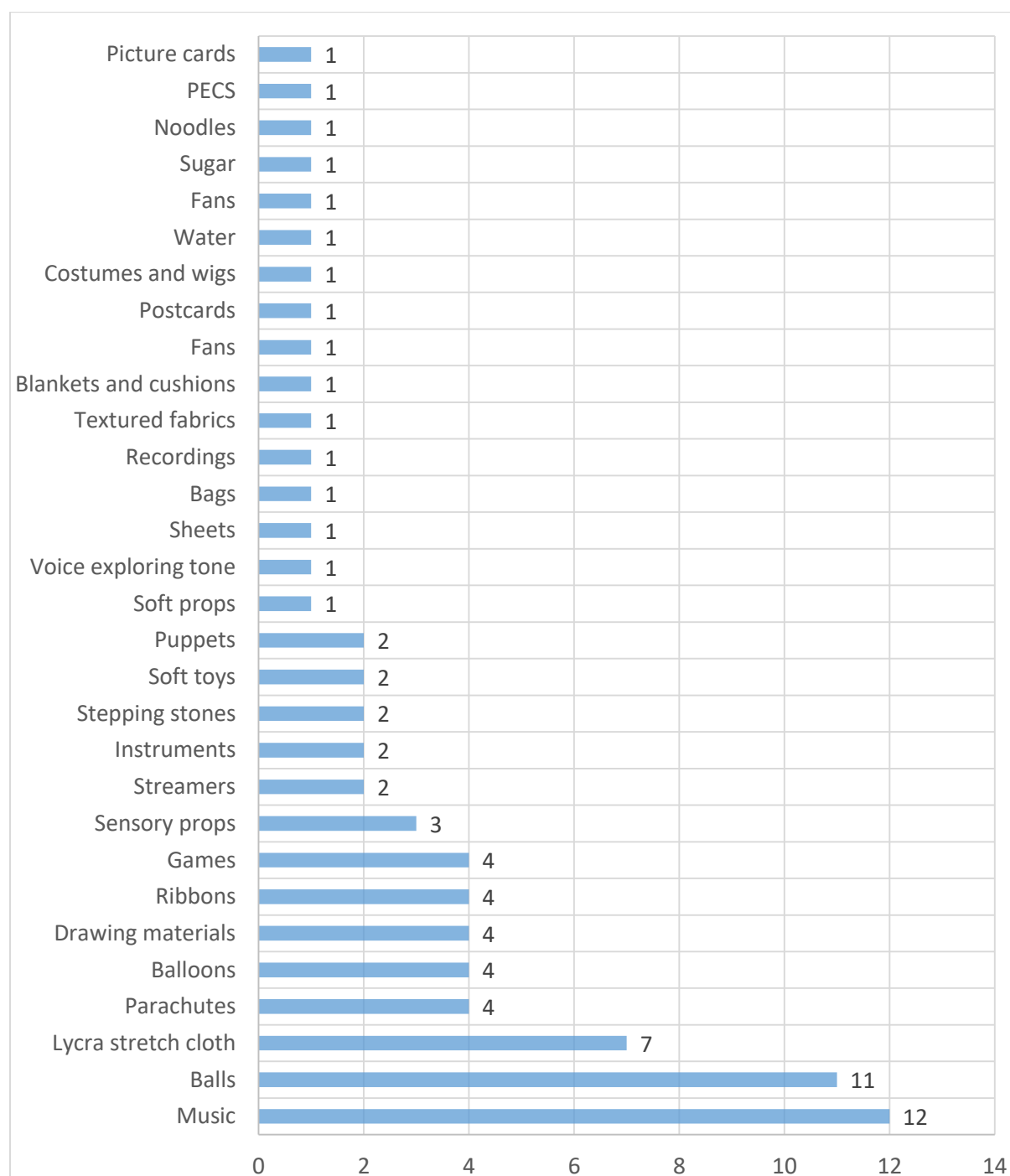
Clinical methods aligns with the ‘what’ item of the TiDier checklist (Hoffmann et al., 2014).

6.1.5 Use of props

The focused code ‘props’ identified initial codes that included various physical and informational based materials used within DMP intervention for autistic adults.

Figure 8 show the number of times the initial codes were mentioned across the 19 interviews.

Figure 8: Props used in the DMP intervention



It can be clearly seen that music was the most prevalent prop with 12 of 19 practitioners utilising music in DMP sessions for autistic adults. One practitioner commented on the purpose of using music and that calming music was used as part of the closure section of a session.

“Erm...I usually do some calm and peaceful music. Do some closure work at the end of a session”. (Practitioner 18; male; Hong Kong)

The second most common material used by practitioners was balls, which was seen in 11 interviews.

“Balls I use quite a lot. I don’t use loads of other props”. (Practitioner 6; male; UK).

Other materials that were used included games; toys; drawing materials; puppets; emotion cards; water and sugar. Although these materials were less common across the 19 interviews; they gave a strong representation of the types of materials used in the DMP intervention. The initial codes were then grouped and given a focus code ‘props’, which gave further meaning to what materials were used to support the intervention.

It could be seen from the initial codes that there was quite a range of materials that were used within the DMP intervention. Some materials were stretch lycra cloth, balls, sensory objects, balloons and ribbons. These props were used by the practitioner for many different reasons. The most common was to aid communication and social interaction such as turn-taking with the ball facilitating social interaction between the individual and the therapist:

“So with him, I worked with props. I would throw a ball at him and see what happens and sometimes I’ve erm...showed him the props and to my great surprise has gone to explore what is there so then I would join in gradually. Either take a turn with the prop and see if we could mirror each other gently and in ways that we could take turns and do some things together”. (Practitioner 7; female; UK)

It was also reported that music, use of voice, recordings and instruments were used. These initial codes were assigned with the focus code of music resources and can be seen in table 16 below.

Table 16: Materials used in the intervention

Initial codes	Focused codes
<ul style="list-style-type: none"> • Lycra stretch cloth • Balls • Parachutes • Balloons • Ribbons • Sensory items • Stepping stones • Noodles • Textured fabric and silks • Blankets and cushions • Sheets • Soft objects • Streamers 	Props
<ul style="list-style-type: none"> • Music • Instruments • Voice exploring tone • Recordings 	Music resources
<ul style="list-style-type: none"> • Drawing materials • Postcards 	Creative mediums
<ul style="list-style-type: none"> • Picture Exchange Communication System (PECS) • Picture cards 	Communication tools
<ul style="list-style-type: none"> • Toys • Games • Puppets 	Drama and play-based resources
<ul style="list-style-type: none"> • Sugar • Water • Fan • Sensory props 	Sensory items
<ul style="list-style-type: none"> • Costumes and wigs • Bags 	Dress-up

The focused codes tend to relate to a particular arts-based modality (dance, music, art or drama). The focused code ‘props’ are most commonly movement-based objects such as balls, lycra stretch cloth, parachutes, ribbons and balloons. Music, instruments, voice and recordings are most commonly linked to the focus code ‘music resources’. ‘Creative mediums’ is a focused code that includes the initial codes drawing materials and postcards, and ‘drama and play-based resources’ groups the initial codes of toys, games and puppets. The initial codes

‘communication tools’; ‘sensory based’ and ‘dress up’ appeared in one interview each across the 19. Props aligns with the ‘why’ item of the TiDier checklist (Hoffmann et al., 2014).

In summary, it can be seen across the practitioners that the props used in DMP sessions are typically arts-based. The most common combination of materials used in a DMP intervention for autistic adults are dance, music and art-based materials. It was reported that in 16 of the 19 interviews there was more than one arts-based prop in the practitioners’ work. The combination of all the arts: dance, music, art and drama-based props being included in the DMP intervention was reported by one practitioner. The combination of dance and music-based materials were reported by eight practitioners. A practitioner commented:

“A range of arts-based materials with dance and music being the most commonly used combination within DMP practice”. (Practitioner 15; female; Philippines)

Whereas dance, music and art-based props were used by five practitioners. It was reported by three separate practitioners that they used one arts-based modality at any one time: dance, music or art. Drama-based props were always used alongside another arts-based modality. Aside from the materials used in the intervention; length of sessions, mode of delivery, frequency and the duration of therapy was reported.

6.1.6 Structure

The focused code ‘structure’ includes length of sessions, mode of delivery, frequency and duration. The length of therapy sessions varied between 10 minutes to 3 hours depending on the mode of delivery (one-one or group-based session), the type of setting and the individuals’ needs. Most commonly, sessions were

conducted weekly, and the duration of therapy was predominantly long-term. Table 17 presents the findings for each practitioner.

Table 17: Length of session, mode of delivery, frequency and duration

Practitioner	Length of session and mode of delivery	Frequency	Duration
1	<ul style="list-style-type: none"> • 30-45 minutes – one-one work • 1 hour - group work 	Weekly	Long-term
2	<ul style="list-style-type: none"> • 30-45 minutes – one-one work • 30-45 minutes – group work 	Weekly	Long-term
3	<ul style="list-style-type: none"> • 1 hour one-one work • 2 hours – group work 	<ul style="list-style-type: none"> • Weekly • Twice per week for group sessions 	Long-term
4	<ul style="list-style-type: none"> • 1 ½ hours – one-one • 1 ½ hours – group work 	Weekly	Long-term
5	<ul style="list-style-type: none"> • 1 hour – one-one • 1 hour – group work 	Weekly	Long-term
6	<ul style="list-style-type: none"> • 1 hour – one-one • 1 hour – group work 	Weekly	Long-term
7	<ul style="list-style-type: none"> • 10-20 minutes – one-one work • 1 hour – group work 	Weekly	Long-term
8	<ul style="list-style-type: none"> • 50 minutes – one-one work • 1 hour – group work 	Weekly	Long-term
9	<ul style="list-style-type: none"> • 55 minutes – one-one work • 1 ½ hours – group work 	Weekly	Long-term
10	<ul style="list-style-type: none"> • 1 hour – one-one • 1 hour – group work 	Weekly	Long-term
11	<ul style="list-style-type: none"> • 30 minutes – one-one • 30 minutes – dyadic work • 3 hours - group work 	Weekly	Long-term
12	<ul style="list-style-type: none"> • 50 minutes – one-one work • No group work 	Weekly	Long-term
13	<ul style="list-style-type: none"> • 30 minutes – one-one work • 45 minutes – group work 	Weekly	Long-term
14	<ul style="list-style-type: none"> • 1 hour – one-one • 1 hour – group work 	Weekly	Long-term
15	<ul style="list-style-type: none"> • 45 minutes – one-one work • No group work 	Weekly	Long-term
16	<ul style="list-style-type: none"> • 1 hour – one-one work • 3 hours – group work 	Weekly	Long-term
17	<ul style="list-style-type: none"> • 50 minutes – one-one work • 60 minutes – group work 	Weekly	Long-term
18	<ul style="list-style-type: none"> • 45 minutes – one-one work • 45 minutes – group work 	Weekly	Long-term
19	<ul style="list-style-type: none"> • 1 hour – one-one • 1 ½ hours – group work 	Weekly	Long-term

Across the interviews it can be seen that one-one therapy is the most common mode of delivery. All 19 practitioners provide DMP on a one-one basis. When both one-one and group sessions are available, three practitioners stated that one-one is most predominantly offered to the individuals who they provide sessions for. A practitioner stated:

“I used to work within inpatients, so on a ward it could be either a group or an individual. I think, yeah, it very much depends on the person. Whether they want to come to the group just to see or in the beginning one-one would be better. Err...and in the community it does tend to be one-one because of the way that we’re commissioned or I am commissioned whether I’m one-one. So it’s very much how I am employed”. (Practitioner 4; female; UK)

A memo extract was created that commentated on the mode of therapy; one-one and group therapy, and how it may vary depending on the type of clinical setting, and other influences in relation to the mode of delivery of DMP sessions.

The curiosity and questioning were grounded in the subsequent interviews. One practitioner stated:

“Some of the clients were seen as a one-one initially, and then they would make the transition to a group. Or the other way round when they were in groups when there was a big erm...change in their...er...emotional state and they would need one-one. But I would see them once weekly”. (Practitioner 6; male; UK)

In connection to practitioner six and the question raised in the memo process, practitioner 19 discussed some of the potential reasons for why one-one may be more commonly offered compared to group-based sessions. Practitioner 19 stated:

“But they feel a bit like what you said, a confrontation, and [laughs], so they feel a bit uneasy. So I think it’s good to do an individual session before the group session”. (Practitioner 19; female; Hong Kong)

Therefore, reasons other than the individuals’ needs may contribute to why one-one is most commonly provided. The culture in the country where the sessions are

conducted may also be a contributing factor to why one-one sessions are more common. Practitioner 15 reflected this:

“In the Philippines...groups...are hard to do. Because people are very...just like...private, and I don’t want to tell others that I am depressed”. (Practitioner 15; female; Philippines)

In comparison to one-one sessions being most prominent, even when practitioners are providing both one-one and group-based sessions, there was one practitioner who reported that group sessions were more prominent than the one-one sessions that they provide. Practitioner 18 shared that this was because it was not useful for the rest of the system to do one-one work and therefore group work was more common.

“Er...group. Group work. Most of them are group work”. (Practitioner 18; male; Hong Kong)

In contrast to one-one being most common followed by group-based work, another practitioner reported that they provide dyadic sessions as the individual’s needs impacted on the mode of delivery:

“The ones who had low functioning adults at the centre that was usually two people at a time”. (Practitioner 11; female; Germany)

It was unclear, however, if the number of individuals who attended in a group was variable across the practitioners who did group work as the number of individuals attending was not reported by all. Typically, a group could range between two-ten individuals, with two individuals also considered a dyad.

The practitioners’ report regarding the mode of delivery showed that the session length varied. For one-one sessions the most common stated session length was one hour seen in 7 out of 19 practitioners. A practitioner stated:

“I start with the idea for individual sessions that they are an hour and an hour and a half group sessions, but sometimes it's too long”. (Practitioner 5; female; UK)

However, 11 practitioners stated that the one-one sessions would be less than an hour. The shortest session length was reported as 10-20 minutes by only one practitioner.

“For individuals about twenty minutes and some individuals ten minutes, but that's a need for that particular service user”. (Practitioner 7; female; UK)

For the 18 practitioners who conduct one-one sessions, the length of session is shorter compared to group-based work. I was curious about why the session length was shorter for one-one work and included a memo reporting this curiosity. The question ‘how does the length of a one-one session compare to a group session?’ was asked in subsequent interviews. Practitioner eight reported that:

“Because it puts less pressure on practitioners. It's hard to stay in one-one context sometimes”. (Practitioner 8; female; Canada)

The explanation from practitioner eight could be one possible reason of the ‘what’ is done by practitioners which led to curiosity about ‘why’ is that the case.

Aside from one-one work, the length of the session for group-based work varied considerably from 45 minutes up to three-hour. However, the most common session length for group work reported by seven practitioners was one hour. Two practitioners conveyed that three hour sessions were offered to practitioners attending group-based sessions. The reason for the difference in session lengths was related to the type of setting; individuals’ needs and funding for the therapist. Funding can contribute to the frequency of sessions; however, all 19 practitioners report that their sessions are offered weekly and only one practitioner mentioned that their setting could offer twice weekly sessions if there was a need for the individual. Another aspect of funding is the duration of therapy.

Across the 19 interviews, 18 practitioners reported that the duration of DMP sessions were long-term when working with individuals who have autism. It was mentioned by two practitioners that they worked short-term. A practitioner stated that:

“We do have short-term approaches, er and we do use them, but we have the capability of one-one therapy for years and predominantly therapy is long-term”. (Practitioner 7; female; UK)

In contrast, another practitioner stated that their work is short-term:

“I tend to work shorter actually. Yes. Er...er...I think that about a year; a year and a half. Something like that”. (Practitioner 12; female; Netherlands).

Even though practitioner 12 mentioned that the work is short-term at the beginning of the quote, a year-to-year and a half is classed as long-term work. Further discussion around the definition of short and long-term work can be seen in chapter seven (discussion). Structure aligns with the ‘how’ item of the TiDier checklist (Hoffmann et al., 2014).

In summary, one-one work is the most common mode of delivery. The session length for one-one work was reported as being shorter in length than group-based work. Only one practitioner reported that they conducted twice weekly sessions, and the other 18 practitioners offer weekly sessions. Long-term work appeared to be common amongst the 19 practitioners. Aside from the therapy session particulars (length of sessions, mode of delivery, frequency and duration), the assessment and evaluation of sessions inform practitioners’ practice.

6.1.7 Assessment and evaluation

Across the 19 practitioners, nine reported that they do assessments that are devised by the organisation where they work and ten reported that they devised their own assessment process. The nine practitioners that conduct organisation-based assessments worked in settings such as hospitals, social services, therapy and

education and colleges. It was reported that the ten practitioners who devised their own assessment process work in the community, day centres and in residential settings. The timeframe for conducting assessments was three-six weeks across the practitioners. One practitioner stated:

“Yeah, OK, so. er...initial assessment is usually about three to six weeks with erm...each patient and finding what they want to work towards”. (Practitioner 2; female; UK)

The practitioners who devise their own assessment process report that they conducted observations, and three practitioners reported that they used Bartenieff fundamentals and Laban Movement Analysis within their assessment process.

Practitioner 2 further stated:

“And I ask them what sort of therapeutic goals that they feel that they would like me to work towards, as well as my own assessment. I do a lot of, er...movement observations. Yes. Bartenieff fundamentals, a bit of Laban”. (Practitioner 2; female; UK)

Aside from formal assessments and observations, a memo was included by the researcher *“evaluations appear to be part of the DMP process, but what methods are being used among practitioners to evaluate the progress, and at what intervals do the evaluations occur?”*

Aside from assessments, the practitioners reported that there were five methods for evaluating the progress of therapy: written reports, use of outcome measures, questionnaires, verbal reflection and performance to monitor progress. Written reports were conducted by three practitioners every six months to monitor the individual's progress. It was reported by three practitioners that they used outcome measures to monitor progress including the Core LD, Outcome Star and SCQ. There were four practitioners who reported that they use a questionnaire on a weekly basis. Practitioner 6 said:

“We do use a variety, we do have quite formal questionnaires for those who can speak or write. Er...sometimes they might do them with someone else and sometimes they might do them with us”. (Practitioner 6; male; UK)

It was mentioned by one practitioner that doing the questionnaire with someone else if the individual is not able to complete is one option, although the questionnaire that they use in their organisation is also accessible for autistic adults with varying needs. The inclusion of visuals, as well as other methods, may provide a way for the individual to evaluate sessions:

“Um, but in addition to that we have a more simple form that they can do with a happy face, you know or a sad face. That kind of thing”. (Practitioner 7; female; UK)

As seen in the quote above, having an evaluation method that is service user friendly is highly accessible. It was reported by four practitioners that evaluating the session through a verbal reflection at the end of the sessions was a service user friendly way of bringing in their voice about their on progress. One practitioner stated:

“Erm, I mean, I guess it’s the verbal reflection at times in the study with the higher functioning adults. Er...The lower functioning adults, they didn’t really have the ability to verbalise any of this”. (Practitioner 11; female; Germany)

As a way of providing a more inclusive form of evaluation on progress, four practitioners use performance. A practitioner commented:

“For the individuals to see their own accomplishments and see what they have achieved. Going through that therapeutic process”. (Practitioner 10; female; Australia)

In summary, organisation-based assessments were used by nine practitioners and therefore it was more common for practitioners to devise their own assessment process. The type of setting influenced if there were formal procedures around conducting assessments. It was reported across the 19 practitioners that the evaluation process included using a variety of different methods. Only one practitioner did not answer how they evaluate and monitor progress in their work.

Additionally, only the three practitioners who reported that they conduct written reports use a timescale for compiling reports. The other practitioners either conducted weekly evaluations or there was no specific timescale detailed. The next section will focus on two aspects of the environment: 'context of sessions' and 'sensory considerations'.

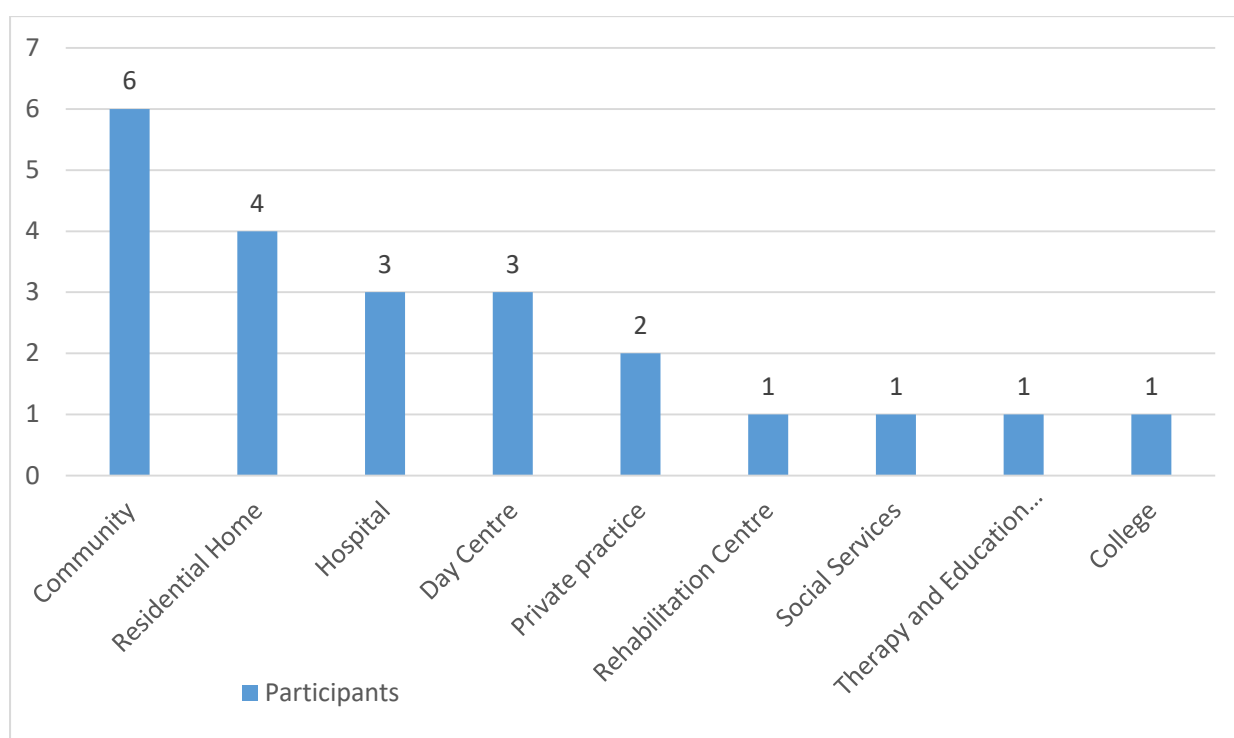
6.2 Environment

The conceptual category of 'environment' was established from the focused codes of: context of sessions and sensory considerations. Each focused code will be presented to report on the importance of the environment that was represented in the data.

6.2.1 Context of sessions

Across the 19 interviews, practitioners reported working in various settings when providing sessions to autistic adults. Figure 9 provides an overview of the initial codes under the focused code 'context of sessions'. The initial codes included the type of settings that the practitioners worked in community, residential home, hospital, day centre, rehabilitation centre, social services, therapy and education centre, college and private practice. The findings below show how many practitioners worked in each type of setting. For two practitioners, they worked in more than one type of setting. Practitioner one worked in a day centre and residential setting, and practitioner 15 worked in both community services and private practice. An initial code was added for each of the settings that these practitioners worked in, so that the findings reflected the different places that practitioners are working in.

Figure 9: Type of setting



Six of the 19 practitioners worked in community services, which was the most common setting in this study.

“I do work in community services, so community services. People with Asperger’s or autism can just come in through the mental health services. And it does tend to be that if somebody does come in with autism that they might get referred to me”. (Practitioner 4; female; UK)

The practitioner comments that referrals go through the community mental health services. Another practitioner spoke of how the adult who has autism can make their own choice about their own well-being and that funding is given from the government to pay for therapies:

“Typically it was a community set up. So either, the, the system in Canada is quite different I guess. Maybe there’s lots of similarities, but after they graduate from high school, whatever, er...they have a choice what to do. Like do nothing and stay home with Mum and Dad. Until as long as possible. Erm...there’s certain funding that they can use that the government funds. They can be used on recreational activities. Er...and people can use for dance therapy as well”. (Practitioner 8; female; Canada)

Working in a residential home was the second most common with four practitioners working in each of those settings. Three practitioners worked in a hospital setting. In relation to the hospital settings, two practitioners worked in an inpatient unit and one practitioner worked in an outpatient service. Equally, three practitioners worked in a day centre. The rest of the practitioners worked in various settings including a rehabilitation centre, therapy and education centre, social services, college and in private practice. One practitioner mentioned how the type of setting influenced their work in a hospital setting:

“Limit distress for that person at the end of the day because they are in a hospital setting. And you know, they can be in quite an agitated state, very anxious, so yeah, just try to keep everything nice and calm”. (Practitioner 2; female; UK).

As seen by the practitioner’s comment above, the type of setting influenced the practitioners’ work. Another practitioner mentioned:

“With adults, I work in shelter. I don’t know how to say. [Residential]. Shelter, Some working place for a special need for autism adult to practice some So we have some, some focus on groups. Group work. Most of them are group work”.

As seen in the quote by practitioner two, the type of setting influenced how the DMP practitioner worked such as only group work being offered. Context of sessions aligns with the ‘where’ item of the TiDier checklist (Hoffmann et al, 2014).

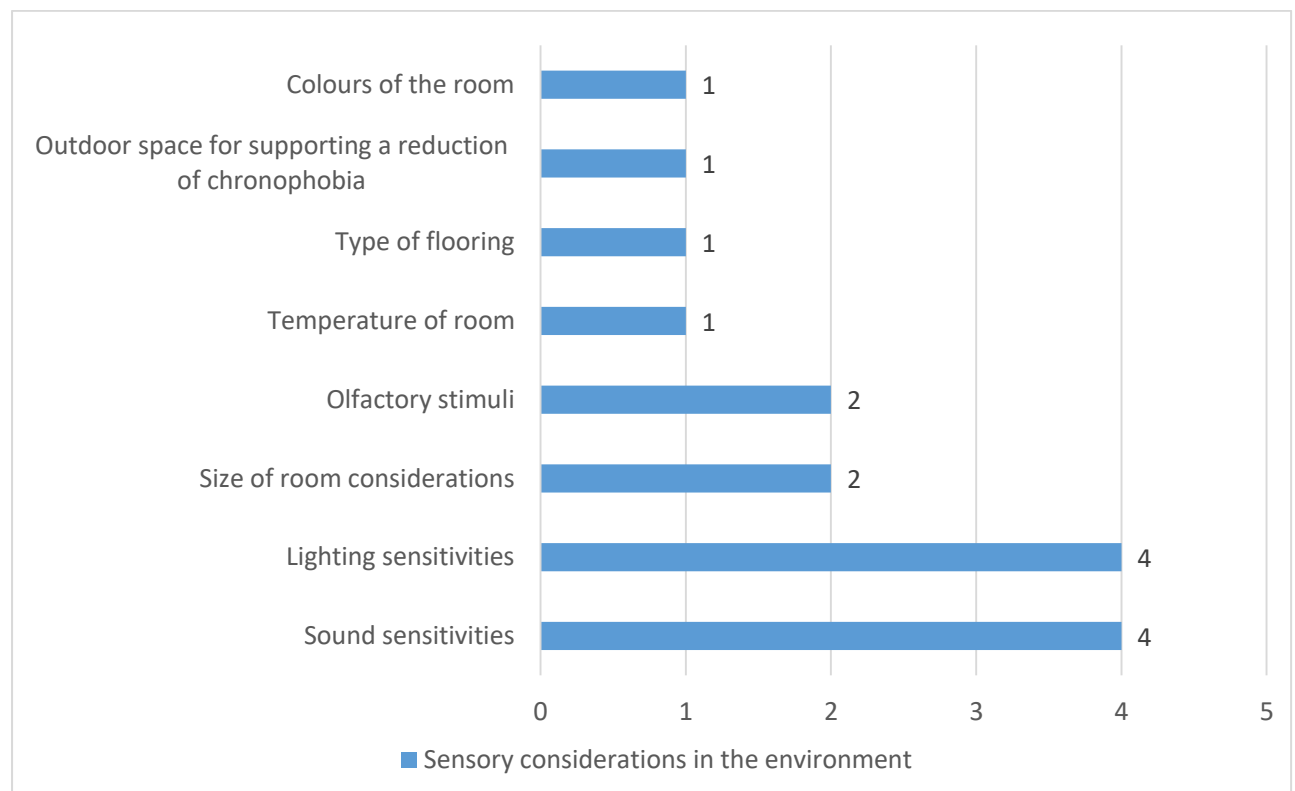
In summary, sessions took place in the community, residential home, hospital, day centre, rehabilitation centre, social services, therapy and education centre, college and private practice most commonly take place in the community.

6.2.2 Sensory considerations

Across the interviews, it could be seen that there were various sensory considerations taken by the practitioners. There were certain sensory considerations

that related to the environment of where DMP sessions took place. The focused code 'sensory consideration' was constructed from the initial codes: sound, lighting, size of room, olfactory stimuli, temperature, type of flooring, colour of the room, and outdoor space. Overall, seven of the 19 practitioners reported that sensory considerations were important within their work. Figure 10 present the frequency of various sensory considerations that are environment-based were discussed in the interviews.

Figure 10: Sensory considerations



Four of the 19 practitioners said that creating an environment to support sound sensitivities are important. The practitioners said that strategies needed to be implemented to make the environment less noisy, so that it is more tolerable for autistic adults. The interview extract below highlights the importance of a quiet therapy environment:

“Sound should be, you know, quiet. Erm...with very little disturbance. Very little disruption”. (Practitioner 13; female; USA)

Another practitioner spoke of the importance of considering sound sensitivities:

“In terms of considering the volume of sound. We do use quite a bit of music. And there is some clients that are really, really sensitive to the music, so kind of working between having a bit of intervention. You know, using the drumming and then there’s time that we er...quiet that down, and do a bit of more gentle and light sort of thing with music”. (Practitioner 15; female; Philippines)

Sound sensitivities was a common consideration in DMP practice, as another practitioner demonstrated:

“Hmm...sometimes we have to be quite aware of the sound. There are some autistic adults or children, they are quite sen...because of the sensory issues, they are quite sensitive for sound”. (Practitioner 19; female; Hong Kong)

The practitioners’ examples above highlight that some individuals are very sensitive to sound, and therefore creating a quieter environment is important to consider. The researcher interprets from the practitioner’s examples that the room itself needs to be less noisy, as well as the practitioner needing to be attentive to the volume of sound in the room, for example music volume. Another practitioner states:

“Yeah. And erm...paying attention to sound of music. Paying attention to whether the sound is too much”. (Practitioner 16; female; Australia)

The lighting is another important sensory consideration within the therapy environment and is reported by three practitioners. A practitioner highlighted that overload can be present, caused by the environment not supporting the sensory needs for autistic adults:

“I say the lighting. The lighting is very important. The light, light sometimes is florescent is a horrible light. Because it’s buzzing and it’s energy. It isn’t calm. It doesn’t give you a calm feeling. For florescent. Yeah. It’s artificial [coughs]”.

(Practitioner 13; female; USA)

Another practitioner supported this notion in relation to space and lighting being

important considerations to the environment of the therapy space:

“And also kind of working and monitoring that...be able to work with that window of tolerance looking at kind of...really providing the sensory, sensory sensitive environment, the lighting and the space”. (Practitioner 14; female; New Zealand)

Another practitioner spoke of these important factors to pay attention to:

“Yeah, so I do give attention to that. And also lighting. Lighting can be really impactful in a session”. (Practitioner 16; female; Australia)

Additionally, another participant reported that they notice lighting sensitivities in the individuals who they work with, and that modifying the environment can be supportive to an adult who has autism.

“Lighting to be not too, like bright lights I notice. But sometimes the use of the light as well, kind of dim, if you have [laughs] to be able to dim the light”. (Practitioner 14; female; New Zealand)

As well as the sound and lighting being an important consideration, two practitioners comment that the size of the room is significant. A practitioner comments:

“So a big space is OK, you know that when I do sessions at places, places other than where I normally do it, and in my private practice, that there are so many different variables. Like you can’t have a medium size space, you can only have a large, large space. You know, what can you do? It’s not the best. [Laughs]. But er...so a medium size space. For a group. Individual...the space shouldn’t be that big. If it’s so big, you can feel like you’re getting lost in the room for one on one. So...you know, the space should match the size of the group”. (Practitioner 13; female; USA)

The size of the space is a sensory consideration; as seen by the practitioner below, the size of the space may feel overwhelming for an individual with them feeling lost in the therapy space.

“Particularly when the room is big [laughs]. I think that the environment is so important; the space. I feel like a part of them like there are times where the space is too big, that you sort of just erm...walk of and you know, explore, but when you call them back, I have noticed that it’s, it’s easier. It’s more manageable for them to contain themselves”. (Practitioner 15; female; Philippines)

In addition to the size of the room; olfactory stimuli are highlighted by two practitioners as being an important environment-based consideration.

“Mint. Or some kind of other prop that might be cooling and settling”.
(Practitioner 10; female; Australia)

The practitioner was talking about creating a cooling of temperature when it is a hot temperature the summer months; although the mint scent is to help the individuals attending the DMP group settle. Another practitioner mentions:

“So again, it could be olfactory of the smell that is important in the environment. I use lotion in my dance therapy. Scents. You know lotion that you put on your hands...to smell”. (Practitioner 13; female; USA)

The two examples that relate to olfactory stimulation are considered by the practitioners to be important in that it creates a relaxing environment.

Aside from olfactory stimuli, one practitioner stated that an important environment-based sensory consideration is the temperature of the room. An example from the practitioner was of water and fans being used during DMP sessions. The practitioner highlighted the importance of the environment for the sessions.

“Yeah and how we manage ourselves on a very hot day. So finding ways to put water on. Either you know, on ourselves; to sprinkle or spray. [Smiles]. As a way of cooling and feeling relaxed and enjoying the experience of that when we are faced with the challenge of it being really hot”. (Practitioner 10; female; Australia).

The monitoring of the temperature is important in creating a comfortable therapeutic environment. The practitioner's comment above that finding ways to use water to cool the temperature felt in the room helps the individual to have a better sensory experience whilst in the therapy session.

Other sensory considerations reported by one practitioner each were the type of flooring, colour of the room, and outdoor space. The themes in relation to sensory considerations that only occurred once are important to mention in the findings,

though they were not identified as a common feature in the practice of DMP for autistic adults.

A practitioner sums up the importance of why sensory considerations need to be made:

“It’s about learning to filter or learn to inform the environment about their needs”. (Practitioner 14; female; Philippines)

Sensory considerations aligns with the ‘what’ item of the TiDier checklist (Hoffmann et al., 2014).

In summary, it was reported that working in the community is most commonly seen in DMP practice. It was commented by six practitioners that they do community-based work. Additionally, sensory considerations were an important factor within DMP work. It was reported by seven practitioners that considering the environment is important, particularly when individuals are experiencing sensory sensitivities. The most common sensory sensitivity was sound reported by four practitioners. The ‘approaches to practice’ and ‘environment’ have identified how practitioners are working. Next, the lived experiences, beliefs and values will be presented which informed their approach.

6.3 Lived experiences, beliefs and values

In this section, the practitioner’s lived experiences, beliefs and values will be presented in order to answer how practitioners work internationally with autistic adults and ‘how’ this informs their practice. The type of approaches that they use in their work may be informed by their lived experiences, beliefs and values. Within this conceptual category, three focused codes emerged including culture, beliefs, and the language and terminology. First, the findings for culture will be presented.

6.3.1 Culture

This study aimed to look at various components of a DMP intervention and how practitioners work. Although cultural differences are important to consider, I did not set out to do an international study. This study became international due to a low recruitment level in the UK, necessitating a revised design and international scope. It is acknowledged that to fully understand the diversity of cultures and how it has an impact on DMP practice, an ethnographic methodology would need to be employed, which would aim to give a narrative about the culture (Gray, 2014). However, despite the focus of this study not being on comparisons of practice across cultures or global locations there are some interesting elements to present from the interview findings.

Geographically, the countries where practitioners were recruited are widespread, as seen in CGT coding context (chapter five), and gives a reasonable illustration of the different practices across the world. Firstly, culture may influence a practitioner's way of working, particularly the type of setting where sessions take place.

Practitioner 15 provided an example of where DMP practice may be considerably different due to the cultural influence.

“Mental health is secondary. We don’t have time to think about other things. Part of the culture is that we are very religious. So, erm...we are mostly about 80% catholic. So, a lot of them, you know, erm...we’re just going to pay for it [smiles]. You know, the reason why this person is depressed is because they’re not close to God. We’re also very family orientated. So, we keep issues in the family, within ourselves. Everything I earn I give to my family. Erm...type of culture, so there’s a lot of hindrances to mental health”.
(Practitioner 15; female; Philippines)

As can be seen in the practitioner's narrative, a cultural aspect of secrecy around mental health may contribute to changes and access to the therapy. The practitioner's disclosure around mental health, and the shame attached to this

disclosure, may alter how a practitioner works. They also spoke of how any 'issues' stay in the family:

"Mental health is very new here in the Philippines. I'm just going to go into the Philippine culture. There were no, you know, mental health support here in the public hospitals. Er...you know, like mental health is secondary".
(Practitioner 15; female; Philippines)

There is limited support available in some contexts and in some cultures autistic adults may need to conform to only speaking with family members if they feel depressed or anxious. Similar reports to the Philippine culture of needing to conform in a particular way were spoken of in Chinese culture.

Practitioner 19 refers to needing to conform to rules and following instructions.

"Follow, they call it, how do you call it? The group norm. I guess this is our main difference for our group therapy er...compared to talk therapy. Or compared with other activities. And this is quite difficult, especially in our culture. For the western countries maybe better. Western. But for Chinese erm...we have a culture that we need to follow or instructions". (Practitioner 19; female; Hong Kong)

This would impact on the way that the practitioner worked, as the need to follow instructions is extremely different to what is seen in other cultures. For example, in the UK, improvisation is used in DMP practice.

"I use a lot of mirroring and movement improvisation. They are the kind of staples to the way that I work. And erm...seem to really benefit the patient, particularly erm..I guess initially as a way in...play is really useful and also the mirroring is a really important, especially for patients who are less verbal".
(Practitioner 2; female; UK)

Practitioner two sees the benefit of play and improvised movement, which is less about following instructions. Improvisation is not an aspect of DMP intervention that practitioner two specifically highlights as being part of a UK culture; however, it is a contrast to the 'following instructions' that practitioner 19 links specifically to culture. Like practitioner two, it was reported by practitioner 19 that they use play and

spontaneous movement in their work; however, play is incorporated in the beginning part of a session. Practitioner 19 stated that through using play to begin the session it paves a way for the individual to conform to what the therapist intends to approach with the individual(s).

“More play activity based to let them and through play gradually add more movement, and then have what we want them to approach”. (Practitioner 19; female; Hong Kong)

Another example is practitioner 17 who believes that it is specific to their Greek culture for early intervention not to be offered to autistic adults.

“So this is another thing that we see in, or I see in Greece, is autistic children now, is early intervention. Adults with autism did not get early intervention or did not get early intervention which got appropriate for their situation, which included the body. A lot of the parents would just try to make their child read, write, because this is what intervention...social intervention meant for them. Rather than er...accepting that maybe they will not read, write [d,d,d,d,da], but they can develop social skills and become independent”. (Practitioner 17; female; Greece)

This could be specific to culture or more of a general issue around the availability of appropriate services. Practitioner 19 spoke of this lack of services in relation to Hong Kong saying:

“After that, they become an adult at eighteen, and then there’s really nothing”. (Practitioner 19; female; Hong Kong)

Culture aligns with the ‘who’ item of TiDier checklist (Hoffmann et al., 2014).

In summary, these above examples report initial findings on how culture may alter DMP practice and how this may then influence the practitioner’s choice of approaches utilised and the type of environment that they work in. For instance, how a culture influences an instructive relationship between therapist-client and an improvisational free flowing dyad. Additionally, the impacts of cultures where mental health is considered shameful and disclosed outside of a family unit, and where services may be harder to obtain due to this. The practitioners also held different

beliefs that, as seen with cultural differences across the interviews, may alter the way in which the practitioner works with an adult who has autism.

6.3.2 Beliefs

The beliefs of the practitioners were an important contributor to how they worked with autistic adults. One practitioner spoke of how their beliefs could influence how they practice, as they may not give much consideration to their approach being autism specific:

“In general, I don't really believe in diagnosis. What I try to do is not read a complete psychiatric report. Because I think as soon as they have formed the relationship, it's as if they're in the third person relationship sometimes, to minimise any kind of, erm...reading of full notes because I want to be there with the client and see what happens in front of me”. (Practitioner 5; female; UK)

The clinical methods used, structure of sessions, environment of where sessions take place, length of session, duration of therapy may not be altered due to there not being a disclosure of a diagnosis. This raises the question of whether the practitioner is aware of the ways that DMP practice may need altering to support the needs of an adult who has autism, and how that may impact on the outcome of receiving therapy.

Similar to practitioner five's belief that a diagnosis is not necessarily helpful, practitioner nine believes that misdiagnosis is common:

“I believe they are misdiagnosed. Sometimes they have had traumatic situations, so they kind of have some behaviours that look like autistic spectrum, but I don't believe that they are”. (Practitioner 9; female; UK)

This illustrates how the practitioner's beliefs may impact on how they practice and raises another question of whether there is a difference in how DMP is being practiced when a practitioner is working with a presentation of trauma compared to a diagnosis of autism.

There were commonalities seen across practitioners in believing that individuals who had been diagnosed with autism were actually experiencing trauma. A practitioner stated:

“But I do have people I work with even with the adults who have trauma that has autistic traits, but they didn’t have that diagnosis. I see that. Yep, yep. Yeah, a lot of overlapping. Yeah actually. But not necessarily actually get the diagnosis of autism”. (Practitioner 14; female; Philippines)

This quote suggest that the approach utilised by the practitioner may be considerably different if the practitioner believes that there is a miss-diagnosis of autism. Beliefs aligns with the ‘who’ item of the TiDier checklist (Hoffmann et al., 2014).

In summary, beliefs were not disclosed frequently, and this may have been due to the participant feeling vulnerable in their professional competencies. Where they were disclosed, they talked to a belief that autism is mis-diagnosed or the diagnosis of autism is unhelp. Additionally, a belief about autism being a ‘label’ that is used for individuals who have suffered a trauma.

6.3.3 Language and terminology used by practitioner

The language and terminology across the 19 practitioners varied and was explored to identify any differences between how practitioners work. Initial codes were created for language used by the practitioners, and these included ‘person-first’, identity-first’ and ‘negative connotations’.

Only one practitioner used identity-first language. The other 18 practitioners used person-first when talking about the individuals who they work with. The most common reference from the practitioners who used person-first language was ‘people who have autism’ or ‘adults with autism’.

“I’ve done a lot of work with adults with autism”. (Practitioner 2; female; UK)

The one practitioner who used identity-first commented:

“I also served autism adults”. (Practitioner 18; male; Hong Kong)

As seen in the other Hong Kong based interview in the culture section (Practitioner 15), it appears common in Chinese culture for practitioners to issue instructions. Exploring the identity-first language used in this interview such as ‘served’ adults, suggests a hierarchal order in the therapist-client dyad which would create a difference in the therapeutic relationship influenced by Chinese culture. This may also have been influenced by a language barrier or practitioner’s expression during the interview.

Another consideration to the language used in the interviews, is how the practitioners refer to the individuals who they work with; ‘patient’, ‘client’, ‘service user’, resident’.

One Dutch practitioner stated:

“Yeah, the usual Dutch terminology would be client. And in some cases people nowadays use the word patient. I sometimes see the shifts from patient to clients and now sometimes get patient, but the usual, the most usual used term is client”. (Practitioner 12; female; Netherlands)

There were some differences in the language in the following UK practitioner’s work where patient was the term used:

“OK, erm..I think really, limit distress is the main aim. And [sighs] each patient and each individual’s needs are different depending”. (Practitioner 2; female; UK)

The UK practitioner above is using the same term as seen in the first example (Practitioner 2); however, practitioner 12 stated that ‘client’ is most commonly used in their practice. This reference is most likely made by the practitioners due to the type of setting where the work took place, which were hospital/mental health settings.

Aside from, 'client' and 'patient', practitioner four refers to the individuals that they work with as 'service user':

"The best support workers are the ones who go off in a group situation and go off and work with another service user and not the one that they are supporting". (Practitioner 4; female; UK)

Another practitioner referred to the individuals that they worked with as 'residents':

"It was a group of five residents and one of them just didn't like talking about what had happened and they had the option of not talking about it anyway". (Practitioner 5; female; UK)

It can be seen that practitioners refer to the individuals who they working to in different ways. The person-first language is commonly adopted throughout the 19 interviews, although is interchangeable with the reference of 'client'; 'patient'; 'service user'; 'resident'. The UK-based practitioners use all four variations of reference; whereas all but one international practitioners use the term 'client'. The one international-based practitioner from Germany who did not use 'client'; did not disclose any of the terms used when referring to the individuals who they work with.

There were occasions when the language used contained negative connotations.

Two practitioners used the terminology 'mentally retarded' and one practitioner labelled the person with autism with having 'severe problems'. One practitioner commented:

"So, I worked in a wide spectrum of ages with er...mental retardation and autism". (Practitioner 17; female; Greece)

Additionally, there were practitioners who talked about 'high and low functioning levels' of autism. A practitioner stated:

"Erm, I mean, I guess it's the verbal reflection at times in the study with the higher functioning adults. Er...The lower functioning adults, they didn't really have the ability to verbalise any of this". (Practitioner 11; female; Germany)

This example show that the practitioner changed the clinical methods that they typically used within their work, such as verbal processing, based on the needs of the client. The language the practitioner uses of 'higher functioning adults' and 'lower functioning adults' is a way of categorising and labelling their clients which also informed their practice. These are examples of how language can appear medicalised using level of functioning. Another practitioner uses medicalised language:

"Also have the, also have the comorbid syndrome of autism". (Practitioner 19; female; Hong Kong)

The examples highlight that the practitioner's language and terminology in the interviews were linked their culture and beliefs and may alter their practice with autistic adults. Language and terminology aligns with the 'who' item of the TiDier checklist (Hoffmann et al., 2014).

In summary, there are varying cultural differences, beliefs and varying usage of language, which could impact on the practitioner's practice. The variation in language may impact on the type of approach used in practice and the theoretical influences that may underpin the practitioners' practice. It was reported by 18 practitioners that they use person-first language when referring to the individuals that they work with. The term 'people who have autism' is most commonly used across the 19 practitioners.

Summary of chapter

The TiDier item of 'why' included theoretical approaches and aims and goals of practice. Under theoretical approaches the utilisation of a person-centred principles was most commonly used within eight practitioners' work. For aims and goals the most common and reported by ten practitioners was social skills.

The TiDier item of 'what' included the focused codes of: clinical methods, holding and containing, props, sensory considerations, assessment and evaluation. The most common clinical methods were mirroring and affect attunement. Of the 19 practitioners, 18 used either mirroring or affect attunement or both within their work. Next, story and narratives were a common clinical method reported in eleven practitioners. Rhythm, imagery and metaphor are clinical methods that are only explicitly stated by international practitioners. Within the 'holding and containing' 'physical holding' is most commonly seen and was reported by 17 practitioners. It can be seen across the practitioners that the props used in DMP sessions are typically arts-based. The most common props were music, balls and lycra cloth. Additionally, sensory considerations were an important factor within DMP work. It was reported by seven practitioners that considering the environment is important, particularly when individuals are experiencing sensory sensitivities. The most common assessment and evaluation was more common for practitioners to devise their own assessment process. It was reported across the 19 practitioners that the evaluation process included using a variety of different methods.

The TiDier item of 'who' included participants, culture, experience, background and qualification(s), beliefs, language and terminology. The most common age range of practitioners was 31-40, and females was most prominent across the participants. There were varying cultural differences and beliefs, which could impact on the practitioner's practice. A psychology background was most common; however, eight practitioners did not disclose their background prior to DMP training and was therefore unknown. The most common experience level was 5-9 years, and Masters level training was the most common form of qualification. There was a variation in language, and this may impact on the type of approach used in practice and the

theoretical influences that may underpin the practitioners' practice. It was reported by 18 practitioners that they use person-first language when referring to the individuals that they work with. The term 'people who have autism' is most commonly used across the 19 practitioners.

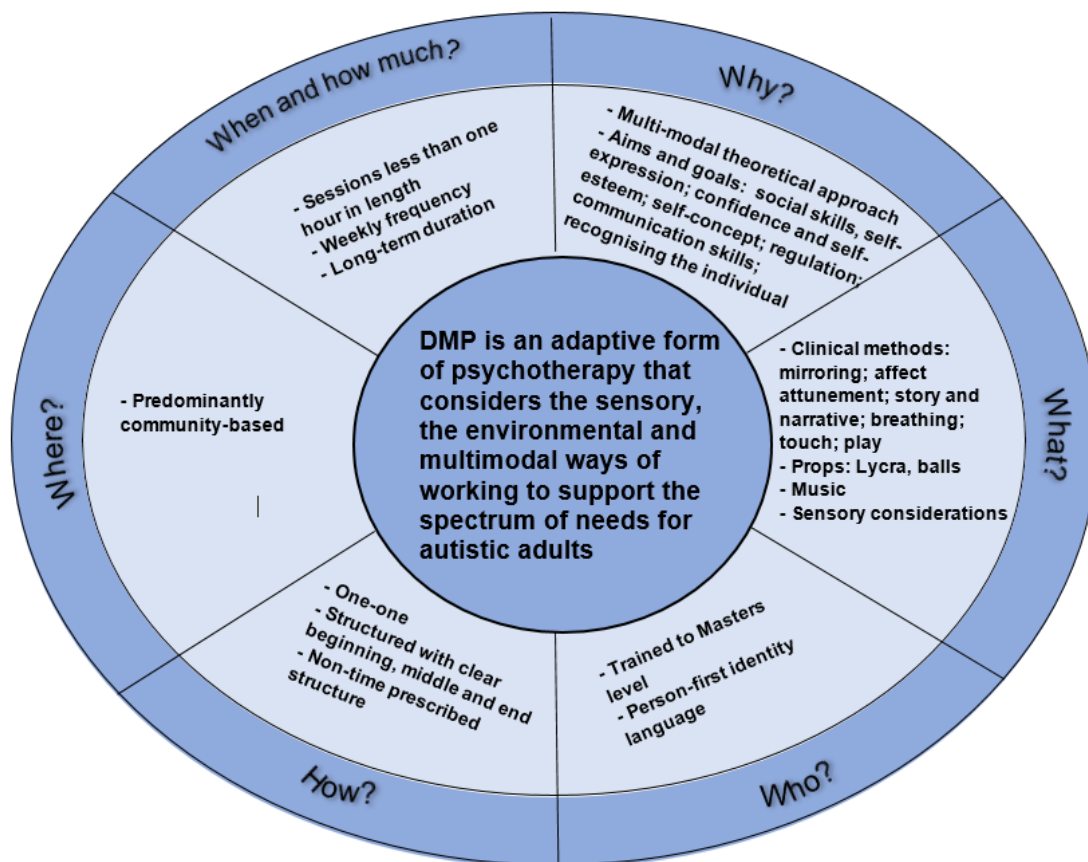
The TiDier item of 'how' included structure. Most commonly sessions were structured with a clear beginning, middle and end.

The TiDier item of 'where' included context of sessions and location of participants. It was reported that working in the community is most commonly seen in DMP practice. It was commented by six practitioners that they do community-based work. The UK was the most common location and was due to the first tranche of interviews being recruited in this location.

The TiDier item of 'when and how much' included length, frequency and duration. One-one work is the most common mode of delivery. The session length for one-one work was reported as being shorter in length than group-based work. Only one practitioner reported that they conducted twice weekly sessions, and the other 18 practitioners offer weekly sessions. Long-term work appeared to be common amongst the 19 practitioners.

Figure 11 presents a visual summary of the reported intervention elements in DMP practice for autistic adults from the interviews, organised by to the relevant TiDier checklist item (Hoffmann et al., 2014).

Figure 11: The core elements of DMP intervention for autistic adults



These findings provide primary evidence to inform guidelines for DMP practice with autistic adults, which are presented at the end of the discussion (chapter seven). A theory-informed model for person-centred DMP practice with autistic adults will also be discussed.

Chapter 7: Discussion

Chapter six set out the findings from an international interview study with DMP practitioners to explore how they work with autistic adults. The objective of this chapter is to answer the second and third research questions of how do DMP practitioners work with autistic adults internationally and what informs their approach? And are there differences between the reported practice of DMP practitioners internationally and the practice of DMP in the existing literature? This will be done by discussing the findings within the context of the systematic review and current literature.

In this chapter TiDier checklist is used as a framework for fully understanding a clinical intervention (Hoffmann et al., 2014). The TiDier checklist contains the following categories: name, why, what, how, where and when and these holistically describe and allow for exploration of an intervention. This checklist will be used to present the focused codes within the TiDier headings for each component of the intervention. This method of discussion ensures that each aspect of the intervention is clearly described and discussed. The discussion will contextualise the findings within previous research, discuss patterns of similarities and differences, and draw together the evidence-base to answer the research questions and develop a theory-informed model.

The researcher's 'being' ontology will fit with a CGT methodology to facilitate this process of identifying similarities and differences in that previous identifiable characteristics will surface from the existing literature, the researcher's previous knowledge and the data collected through the voices of the participants via the interviews.

7.1 TiDier checklist

This section will use the headings of the TiDier checklist to present a summary and discuss the findings with the literature. Figure 12 visually represents the component headings and the focussed codes which fit with them.

Figure 12: TiDier headings



7.2 'Why?'

The 'why' item in the TiDier checklist is described as providing a rationale, theory or goal of the elements essential to the intervention (Hoffmann et al., 2014). The findings from focused codes 'theoretical approaches' and 'aims and goals of practice' are organised under this item and will be discussed sequentially.

8.2.1 Theoretical approaches

The approach utilised in therapy is an important aspect of the intervention; to have a theoretical framework that will direct the process purposefully (Simpson and Moriarty, 2014). All of the efficacy studies seen in the systematic review (chapter two) identified one specific theoretical approach, which included developmental approach, embodiment approach, imitation and synchronisation approach, plurisensory, social stories model; the other studies did not identify a defined. The developmental approaches (Edwards, 2015; Koch et al., 2015) and embodiment approaches (Hildebrandt et al., 2016; Mastrominico et al., 2018) were each reported in two studies. Considering individuals who have autism have varying needs, one theoretical model may not be sufficient due to the varying needs that require medical, social and biological/psychological models to be reflected (Chown and Beardon, 2017).

A recent study discusses the uniqueness of DMP in that it utilises a variety of theories ranging from psychology and psychoanalysis, as well as movement-based frameworks (Lauffenburger, 2020). Therefore, a multimodal theoretical approach is identified as being used in the wider DMP literature, although the literature specific to DMP for autistic adults does not mention a multimodal approach to practice.

In the findings fifteen practitioners used a multimodal approach in their practice with autistic adults. Various approaches influenced the practitioners' practice including person-centred; developmental; psychodynamic; psychoanalytic perspectives; embodiment approaches; transpersonal; social constructionism; community model; relational model; neuroscience; polyvagal theory and narrative approaches.

In the interviews, there were nine practitioners who commented that they used a person-centred approach in their practice. Of these, four practitioners mentioned using a person-centred approach solely when conducting sessions with an adult who has autism. A person-centred approach includes being congruent, as well as being in the here and now/present moment when working with autistic adults (Thompson et al., 2018).

To be able to meet the person in the 'here and now'; a range of theoretical approaches would need to be utilised according to how the individual presented. The use of one singular theoretical approach is more in line with the studies seen in research when the practitioners highlighted a specific approach: developmental; mirror neuron system; imitation and synchronisation in relation to social cognition; plurisensory. However, details of the theoretical approach was not always entirely clear in the international evidence, and as could be seen across the 19 interviews, practitioners are using a multimodal theoretical approach to meet the varying needs that are present among autistic adults.

The literature reports that therapists made adaptations to their practice when working with individuals who have autism (Cooper, Loades and Russell, 2018) and most apparent was their pacing of sessions and being less rigid in their thinking. A varied range of theoretical approaches gives the practitioners the flexibility to support the individual's needs and to adapt to these needs accordingly (Camurri, Volpe and Leman, 2005). Several meta-analyses indicated that therapies often had a clear rationale in relation to treatment, although had very diverse theories (Locher et al., 2019). One DMP practitioner focused on seeing how the individual presented and worked with those issues directly. The example above highlighted that seeing and meeting the individual meant that various theoretical approaches may be woven

together without being consciously aware. Therefore, the practitioners in the interviews meet the individuals' needs opposed to working with one particular theoretical approach.

The DMP literature focuses on one theoretical approach as highlighted in table 4 (chapter two). There is less emphasis in the efficacy studies of how DMP practitioners are meeting the individuals' needs, and the DMP intervention being practiced in the literature is more focused on utilising a particular theoretical perspective, clinical method, and/or time prescribing sections of the session (Edwards, 2015; Koch et al., 2015; Koehne et al., 2016; Hildlebrandt et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). The interviews highlighted that fully 'being with' and understanding the individual's needs opposed to proving a rigid structure is how DMP practitioners are working with autistic adults. To fully allow DMP practice to meet the varying needs of autistic adults multimodal theoretical approaches need to be favoured over singular theoretical approaches (Nermin Streater, 2022; Lauffenburger, 2020; Cammurri et al., 2005).

An AP study looking specifically at MT and entitled 'Multimodal arts psychotherapy with adults suffering with conduct disorder' is the only existing study that explicitly uses a multimodal approach. However, the multimodal aspect relates to the alternating methods used within the structure of a session such as MT, improvisation and creating stories under musical induction (Schiltz, 2014). The multimodal approach is therefore in relation to the clinical methods used not the theoretical approaches. Similarly, in DT, a multimodal approach is used, although similar to MT, the multimodal aspect relates to the clinical method utilised in their practice (Mackenzie, 2013).

Unlike MT and DT, there is no study that looks at AP and the inclusion of a multimodal approach. However, in the literature the use of an integrative approach exists (Serlin, 2017). In DMP, one study used an integrative approach with a focus on the aging process; however, the integrative approach related to an integration of methods of psychotherapy: psychophysical and social rehabilitation Gayvoronskaya and Shapovalov, 2008).

MT is the only arts therapy that uses an integrative approach in the literature in relation to theoretical approaches. When examining the two studies that discuss this, it can be seen that a multimodal approach is used in relation to theory.

Edwards (2014) discusses the combination of psychodynamic; humanistic; behavioural and feminist perspectives in their practice. The other MT study incorporated three theoretical approaches including: strengths-based (resource-orientated) approach; client/family-centred care and medical MT (Clark et al., 2014).

Next the aims and goals of practice will be discussed.

7.2.2 Aims and goals of practice

Having aims and goals of practice is essential to the intervention. The most common aims and goals of practice were increasing social skills and increasing self-expression. There were five other aims and goals of practice that shared a commonality to a lesser extent.

7.2.2.1 Social skills

Social skills was the most common aim and goal of practice and was reported by ten practitioners. The systematic review (chapter two) confirmed that increasing social skills was a prominent aim and goal of practice and was reported in six studies (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al.,

2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014).

Edwards (2014) study was the only study that did not clearly state that social skills was an aim in their practice. In this study, proprioception and visual sensory differences are observed including proximity to the therapist, avoiding others and eye contact. As discussed by three areas relate to social skills (Frye, 2018; Fonger and Malott, 2019), although Edwards (2014) did not state social skills as a goal in their study.

As highlighted in the background information chapter (chapter one) a distinctive characteristic of autism is that individuals find social skills challenging. In the DSM-V the first item in the diagnostic criteria specifies “persistent deficits in social communication and social interaction across multiple contexts” (American Psychiatric Association, 2013: 50-51). It is not unexpected that improving social skills is a common aim and goal of practice, as was highlighted by ten practitioners in the interviews.

In the literature it is mentioned that infants who have autism have limited non-verbal social gestures such as eye contact, social smiling, imitation, interest in other children, pointing, showing and passing objects (Frye, 2018). Developmentally, these non-verbal social gestures are typically learnt by the time an infant is one-year old (Lüke, et al., 2017). Social skills are one of the significant facets in life (Badiah, 2018) and as discussed in the interviews, the literature in the arts therapies highlight that social skills is an important goal in the therapist’s practice.

In MT, specific studies social skills were significantly enhanced after receiving MT intervention (Fluegge, 2018), and specific social aspects were improved including: joint attention, imitation, and turn-taking (Ghaemtabar et al., 2015). To enhance social skills, music activities were included in sessions such as: listening to music,

singing songs and chanting rhythms, clapping, movement and dancing, and free and creative playing of instruments (Ghaemtabar et al., 2015).

Mössler et al's. (2017) study found that a shared social process, was achieved when the music therapist musically and sensitively attuned to the child's ways of communicating and relating. Affect attunement was a clinical method that was commonly discussed this study, and it appears that this clinical method is used in MT as a way of increasing social skills. Despite the evidence that showed social skills are improved by the clinical methods or therapeutic process used in a MT intervention, the studies mainly focus on children opposed to adults.

Like MT, DT studies are mostly focused on children. Godfrey and Haythorne (2013) stated that DT is an appropriate intervention to improve relationships with others through rehearsing and replaying social skills until they are embedded. In Godfrey and Haythorn's (2013) study, the aims for the sessions were to improve relatedness to others, improve turn-taking, greater social skills, improve skills to work with others and this was achieved through role-play and storytelling. A drama-based intervention, not DT specific, was used in one study for autistic adults and included giving positive feedback through role-plays and improvisations based on everyday life situations (Trudel and Nadig, 2019). Like MT, social skills are identified as being an important aim and goal within a DT or drama-based intervention, although there are few social skills intervention studies specifically for autistic adults (Howlin and Moss, 2013). Similarly, studies specific to social skills intervention for autistic adults are sparse in AP.

It was reported that sensory integration within an AP intervention can improve social relationships (Betts and Deaver, 2019). Likewise, as seen in an art education and AP study, strategies used to support students who have autism there was a reported

increase in social skills (Alter-Muri, 2017). A range of strategies were described in this study which linked to recreational art and AP clinical methods including printmaking, weaving and creating murals. Even though there was a reported increase in social skills; it was difficult to conclude whether the increase was due to the art-based activities undertaken or AP clinical methods. Additionally, this study focused on children. It was most common that AP studies focused on children, as another study reported the clinical method of painting being used to improve social skills and was for children (Jalambadani, 2020). One study in the literature that focuses on increasing social skills, a range of age populations, as well as autism amongst other pathologies; however, when discussing autism only children are mentioned (Hu et al., 2021).

Social skills are the most common aim and goal identified by the DMP practitioner when working with autistic adults, which is supported in by the literature when adults stated that social skills are an area they most want to develop (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). Therefore, the findings and current literature support the inclusion of this aim and goal of practice as essential to the 'why' item for DMP intervention.

7.2.2.2 Self-expression

Following the focused code 'increase of social skills', 'self-expression' is the second most common aim and goal of practice and reported by seven practitioners. The systematic review identified three studies that explicitly mentioned that an aim and goal of their practice was to increase self-expression (Mastrominico et. al., 2018; Mateos-Moreno and Atencia-Dona, 2013). An example could be seen in a feasibility study that reported the use of a Baum-circle; where the practitioner was encouraged

to focus on the expression of emotions (Koch et al., 2015). Another study, which used a combined MT and DMP approach reported significant difference for emotional disorder (Mateos-Moreno and Atencia-Dona, 2013). Mateos-Moreno and Atencia-Dona (2013) further stated that the clinical method of imitation helped with the expression of emotions and developing self-awareness. The aforementioned studies are adult specific, and self-expression can be seen as a goal in the literature, as well as in the interviews. Although it was not a defined aim and goal of practice in Wadsworth and Hackett's (2014:60) study; it was highlighted that improvisation through dance and movement within DMP practice facilitated profound "expressiveness and self-exploration". Improvised free movements encouraged self-expression through a Baum-circle in a RCT study (Mastrominico et al., 2018). Another RCT study highlighted self-expression as an aim and goal of practice through the use of imitation, reflection and variation in movement qualities and shapes (Hildebrandt et al., 2016). Koch et al. (2015); Hildebrandt et al. (2016); Mastrominico et al.'s. (2018) studies use a manualised approach and share the commonality of including mirroring exercises within their work and a Baum-circle in particular appears to be a clinical method that facilitates the aim and goal of self-expression.

However, in the wider literature reported that individuals who have autism are not particularly lacking in emotional expression; moreover, social cognition skills that contribute to the appropriateness and timing within the expression are challenged (Isaksson et al., 2019; Bieberich and Morgan, 2004). A DMP study that focused on children included expressive movement within the intervention (Takahashi, Matsushima and Toshihiro, 2019). The outcomes of this systematic review reported that there were reported in expression of emotions (Hildebrandt et al., 2016; Koehne

et al., 2016). A more contemporary review of the literature for autistic adults reported that couples who have autism receive the same goal of increasing self-expression through imitation and mirroring compared to non-couples (Engelhard and Vulcan, 2021).

DT studies for autistic adults also confirmed that self-expression was an aim and goal of practice. One study looked at dramatherapists' practice and discussed the clinical method of dramatic projection as a form of expression (Andersen-Warren, 2013). Andersen-Warren (2013) defines dramatic projection as a tool that involves using the medium of drama to project difficult emotions. The study reported that 'self-expression' is not a specific aim and goal of practice, although the dramatic projection engages expression of emotions and reported improvements following the study. Studies again are sparse in relation to DT and autistic adults. Existing literature acknowledges self-expression, although this is termed creative expression, as an aim and goal of practice. It could be seen in a book chapter 'Remember me'; DT with autistic adults, focus on complex needs through non-verbal expression (Benbow and Jackson, 2017). However, the chapter is in the form of case vignettes opposed to a research-based study.

The findings from the interviews confirmed that self-expression was a common aim and goal of practice. Consequently, the confirmability of this aim and goal of practice supports including self-expression in the theory of how DMP practitioners work with autistic adults internationally.

7.2.2.3 Other aims and goals of practice

It was expected that 'building confidence' 'enhancing self-esteem' would be a common theme across the interview practitioners and these were each reported by

five practitioners. In the systematic review of the literature increasing confidence was reported in two studies. A DMP study reported that “over the course of a few weeks, the therapist observed the patient gaining confidence” (Wadsworth and Hackett, 2014: 70). Another study confirmed that individuals had increased self-confidence and appeared more outgoing after receiving DMP intervention (Koch et al., 2015). It was surprising that this aim and goal was not reported more frequently, as a systematic review in the wider literature reported that autistic adults often lack confidence (Mason, 2019).

Self-concept was reported by four practitioners in the interview findings as an aim and goal of practice. The systematic review confirms that self-concept is an aim and goal of practice and is highlighted in a feasibility study where the mirroring taxonomy of Eberhard-Kaechele (2012) is presented (Koch et al's., 2015). It is reported that the clinical method of mirroring through simultaneous movement between a dyad “enables interpersonal transcendence, or it is a sign of merging and a lack of differentiation between self and others” (Koch et al., 2015: 349).

In Art Psychotherapy (AP), there is little literature in relation to autistic adults and it is unclear whether increasing self-concept would be an aim and goal of practice.

Visual nature of AP assists “to better understand emotional cues and themselves and others” (Gabriels and Gaffey in Malchiodi, 2012: 205). Therefore, self-concept can be seen as an aim and goal of practice in both the findings of interviews and the wider literature for autistic adults.

Significantly, communication skills were not a more prominent theme in DMP research. The DSM-V states within the first section of the diagnostic criteria “persistent deficits in social communication and deficits in nonverbal communicative

behaviors” (American Psychiatric Association, 2013: 50-51) is noted as an area of need. The only studies that highlight communication as an aim and goal of practice was Edwards (2014) and Wadsworth and Hackett (2014). The four manualised approaches and the combined MT and DMP study do not include communication as an aim and goal (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018; Koehne et al., 2016). However, it can be seen in the wider literature specific to autism that communication as a core area that individuals who have autism find challenging (Brignell et al., 2018). The other arts therapies also acknowledge the challenges of communication and include communication as an aim and goal of practice (Marquez-Garcia et al., 2022; Porter, 2014; Gussak and Rosal, 2016). This supports including the aim and goal of communication in the theory of how DMP practitioners work with autistic adults.

The findings reported that the aim and goal of to ‘improve regulation’ only occurred in two interviews. This was fewer than expected, as in the systematic review of the DMP literature four studies reported that this was an aim and goal of practice. In one study, observations of mirroring modalities employed the concept of co and self-regulation (Koch et al., 2015). Edwards (2014) study also mentioned that the improvement of regulation in the observed influence of relationships as an aim and goal of practice. The combined MT and DMP study also has the aim and goal of regulation and discusses that there was a significant difference noted in the outcomes of receiving the combined arts therapy intervention (Mateos-Moreno and Atencia-Dona, 2013). One study did not explicitly mention whether regulation was an aim and goal of practice; however, it was stated that individuals who have autism commonly have sensory and/or motor challenges and in turn may affect emotional regulation (Mastrominico et al., 2018). It is therefore surprising that so few of the

interviews include the focused code 'improve regulation'; however, the fact that it appeared in both the findings and the literature provides confidence that this would be included in the theory. This also aligns with the wider literature which recognises that emotional dysregulation can be seen as being inherent in autism (Cai et al., 2019).

Summary

For the 'why' item of the TiDier checklist, multimodal theoretical approach is the most common in DMP for autistic adults. DMP is adaptive to the needs of the individual and does not rigidly apply one theoretical approach. This is different to what is seen in the literature where applying one theoretical approach is predominant. Within the multimodal theoretical approach, person-centred stood out as the most commonly applied.

In relation to the aims and goals of practice, the most common were increasing social skills and increasing self-expression. These were supported by the aims and goals of practice seen in the literature. However, the aims and goals of practice will be specific to each individual and need to be formed in collaboration with the individual and tailored to their needs. This is evident in the findings from the widely varied range of other aims and goals of practice that were mentioned. Next the item 'what' will be discussed.

7.3 'What'

The 'what' item in the TiDier checklist is described as any physical or informational materials used in the intervention including any procedures, activities or processes used in the intervention (Hoffmann et al., 2014). The focused codes 'clinical

methods'; 'holding and containing'; 'props'; 'sensory considerations'; 'assessment and evaluation' are organised under this item and will be discussed sequentially.

7.3.1 Clinical methods

DMP practitioners used various clinical methods in their practice and included mirroring, Affect attunement, story and narrative and touch. There were some other clinical methods mentioned which will be discussed and the findings and literature will be discussed, identifying any key differences.

7.3.1.1 Mirroring

In the findings a wide range of clinical methods were used in DMP practice. The most common clinical method utilised was mirroring and this was reported by 15 practitioners. Three practitioners mention including a Chace-circle within their practice. Other practitioners talked about using Chace-circle, although did not refer to it by this name. Circle dances or sharing a movement whilst in a circle was described and there was no specific mention to this clinical method being a mirroring exercise.

Similar to the Chace-circle, it was also mentioned by two practitioners that they use a Baum-circle, as well as mirroring in their work. The DMP literature reported three studies that use a manualised approach and incorporate a Baum-circle in their work (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). The literature has highlighted differences, as a Baum-circle was considered to be a mirroring exercise opposed to mirroring and a Baum-circle being two separate clinical methods (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). Therefore, as seen in the above examples, it may not be clear to practitioners that a Chace-circle or Baum-circle is classed as a mirroring exercise. In the systematic

review of DMP literature three of the manualised studies define three mirroring exercises: Chace-circle; Baum-circle; dyadic movement (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018).

There was a difference in interviews compared to the literature in that dyadic movement was not mentioned by any of the practitioners. However, the systematic review of DMP literature reported three of the manualised studies using dyadic movement (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). A combined MT and DMP study mentioned using turn-taking, although did not refer to the term 'dyadic movement' (Mateos-Moreno and Atencia-Dona, 2013).

In the systematic review two studies included a mirroring approach without defining particular manualised mirroring exercises (Koehne et al., 2016; Wadsworth and Hackett, 2014). In the manualised mirroring exercises each exercise was time managed for example: Chace-Circle (10 minutes); dyadic movement (15-20 minutes); Baum-circle (20 minutes). Two studies did not include any type of mirroring approach in their work (Edwards, 2014; Mateos-Moreno and Atencia-Dona, 2013). Therefore, the findings from the interviews and the findings in the systematic review show a key difference in relation to mirroring. The interviews reported that 15 practitioners used a mirroring approach, although none of the practitioners use particular mirroring exercises in a manualised way. Where a Chace-circle or Baum-circle is mentioned, mirroring is also mentioned suggesting that practitioners are not necessarily aware that these clinical methods are a type of mirroring exercise.

Therefore, mirroring is commonly used in DMP practice, although in a non-manualised and not time prescribed way. Mirroring is an important clinical method in DMP intervention for autistic adults, as it builds awareness of body sensations (Mastrominico et al., 2018).

The findings reported that when mirroring was not apparent, 'affect attunement' was used. Affect attunement was described as mutual emotions within dyadic interaction (Rollins and Greenwald, 2013) and below discusses why it is an important aspect of DMP practice for autistic adults.

7.3.1.2 Affect attunement

In the systematic review of the DMP literature it could be seen that only two of the manualised studies used affect attunement (Hildebrandt et al., 2016; Koch et al., 2015). It was reported in Hildebrandt et al's (2016: 14) study that "attunement can lead to empathic emotion and reaction". The feasibility study emphasised Kestenberg's theory being that attunement leads to effective differentiation in 'normal' development (Koch et al., 2015). In the interview findings eight practitioners used affect attunement as a clinical method within their practice.

Research in caregiver-infant dyads stated that social competence is an important factor in child development (Domitrovich et al., 2017). A study reported that social competence develops during caregiver-infant exchanges to facilitate a mutual emotional experience, which contributes to the development of the infant and their ability to self-regulate (Renzo et al, 2020). Commonly, challenges are foreseen when it comes to self-regulation for individuals who have autism (Torrado, Gomez and Montoro, 2017). Therefore, the method of attunement can enhance the social competencies and provide a strategy for self-regulation (Gattis, Winstanley and Bristow, 2022).

The findings support that Affect attunement was the second most common clinical method seen in the findings of the interviews and this supports its inclusion an important aspect of DMP work for autistic adults.

7.3.1.3 Story and narratives

The findings from the interviews reported that eleven practitioners used story and narratives within their practice. In the systematic review of the DMP literature only one study explicitly stated that they use story and narratives (Wadsworth and Hackett, 2014). Although not specific to story and narratives, it was reported in the combined MT and DMP study that role-play of fairy tales were incorporated within their work (Mateos-Moreno and Atencia-Dona, 2013). It was unexpected in the interview findings that over half of the practitioners used story and narratives compared to only one practitioner in the systematic review of the DMP literature. The wider literature stated that the use of story and narratives for individuals who have autism is evidence-based in relation to children to help with understanding suitable social behaviours and in supporting with anxiety linked to social situations (Morris, 2015). These social behaviours and anxiety linked to social situations do not diminish into adulthood (Spain, Zivralil and Happe, 2020).

In the findings, one participant created a story through characters; a lion, to help the individual process and feel the emotion 'anger'. A developmental theoretical approach was used, and transitional objects incorporated as a clinical method.

Like the caregiver's adaptation to the infant's needs, the utilisation of a transitional object would give the infant awareness of an external reality (Trimingham, 2010). A transitional object can help to create a story along with the object with an introduction to characters (Roig, Roig and Soth, 1987). Wadsworth and Hackett (2014) stated that story and narratives are particularly helpful for autistic adults. Wadsworth and Hackett (2014) further reported that they used a six-part story method which is a structured narrative approach that is embedded in work grounded by coping

techniques and resilience in individuals experiencing anxiety. Considering anxiety affects 20.1% of autistic adults, story and narrative appeared to be an appropriate and supportive clinical method (Nimmon-Smith et al., 2020). A DT study confirms that story and narratives are a clinical method used to practice social skills (Godfrey and Haythorne, 2013).

Social skills was a core aim and goal of DMP practice identified in the findings, and story and narratives are an appropriate clinical method to increase social interaction. The findings reported that through dyadic social interaction that is used within story and narrative approach, fictional characters and entering a dialogue with the internal imagination helps to express emotions and increase social integration (Gasser, Dammert and Murphy, 2022). This, alongside the high level of reporting from practitioners in the findings, supports the importance of story and narrative as a clinical method in DMP practice with autistic adults

Two other clinical methods reported by over a third of practitioners in the interviews were 'breathing techniques' and 'touch'.

7.3.1.4 Breathing techniques

In the review of the DMP literature only one of the studies included breathing techniques or breath support as the authors word it, as a clinical method (Wadsworth and Hackett, 2014). The findings reported that seven practitioners used breathing techniques in their practice. It was to be expected that breathing techniques would be used in therapy since it is extremely common for individuals who have autism to experience dysregulation and support in accessing therapy to increase self-regulation skills is needed (Hourston and Atchley, 2017; Conner et al., 2021).

In the wider literature, it was seen that autistic adults are more likely to exhibit clinical levels of anxiety (Autistica, 2022; Ainsworth, 2020; Hollocks et al., 2019). Therefore, the fight-flight response may present when individuals become dysregulated with an increase in their breathing (Cook, 2015). It is surprising that a body-based method such as breathing is not one of the most fundamental clinical methods used in the systematic review of the literature since breathing techniques are evidenced as increasing self-regulation (Torrado, Gomez and Montoro, 2017). The findings are different in that breathing is used by over a third of DMP practitioners and in the literature it was only discussed in one study (Wadsworth & Hackett, 2014).

Breathing techniques are commonly used by DMP practitioners internationally when working with autistic adults. It is used to support with self-regulation to decrease symptoms of anxiety including physical and behaviour symptoms (Sequeira and Ahmed, 2012).

7.3.1.5 Touch

Equal to the number of practitioners who used 'breathing techniques'; seven practitioners used 'touch' as a clinical method within their work. Touch involves pressure applied from another person and across various parts of the body and is evidenced to decrease the stress hormone cortisol (Kuehn, 2016). Since stress and chronic anxiety is prevalent in individuals who have autism; it is surprising that touch is not a clinical method commonly seen in the systematic review of the DMP literature for autistic adults (Fuld, 2018). One study discusses the use of touch through handshakes or holds, although this is not incorporated into their work (Koch et al., 2015). Edwards (2014) study is the only DMP study that explicitly acknowledged the importance of touch within their work. In this study, sensory

sensitivities are examined and the hypersensitivities around touch (Edwards, 2014). The wider literature described that individuals who have autism report tactile sensitivities (He et al., 2021). A DMP study focusing on children who have autism reported that after receiving DMP intervention there was a reduction in negative responses in relation to being touched (Hartshorn et al., 2001). This study evidenced that the inclusion of touch in DMP sessions is not always suitable. The individual and specific needs require consideration particularly when introducing sensory stimuli (Mallory and Keehn, 2021).

Other positives of using touch included individuals being able to interact and explore with their surrounding environment; to learn and understand the world around them (Edwards, 2014). A recent study reported that lower proprioception was observed in individuals who have autism, which involves sensorimotor information to trace the body and limbs in space (Armitano-Lago, Bennett and Haegele, 2021). The findings from these studies discussed how the use of touch can be a way for individuals to reach out and make contact.

The wider literature reported an increase in the awareness of the surrounding environment, as well as reducing any anxieties; pressure-based strategies were used such as using weighted blankets (Eron et al., 2020). Like weighted blankets, the use of pressure through touch, props such as was mentioned by DMP practitioners in the findings. In the findings, practitioners talked about using deep pressure massage and the use of props.

Touch was reported in the findings by seven practitioners, with emphasis on deep pressure. Deep pressure is a method often used amongst occupational therapists and there is evidence to support that it is effective in reducing stress and anxiety for

individuals who have autism (Bestbier and Williams, 2017). The evidence is further supported in a systematic review and mentions that deep pressure helps with self-regulation (Folkes et al., 2018). As well as deep pressure, massage was used by four DMP practitioners. Touch is sparsely reported in the systematic review of the DMP literature. However, the wider literature and the high level of representation in the findings supports including touch in how DMP practitioners work with autistic adults. It should be noted that it is used in accordance with the individual's needs.

7.3.1.6 Other Clinical Methods

The clinical methods of Chace-circle, play and imagery were each reported by four practitioners in the interview findings. A Chace-circle was also reported in the systematic review of the literature; however, only the three German-based manualised approach studies used this clinical method (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). It is mentioned in one of the non-manualised approach studies that Chaces' mirroring approach is invaluable for individuals who have autism, although it is not specifically used in their work or mentioned (Wadsworth and Hackett, 2014). Within the studies that utilise a manualised DMP approach, a Chace-circle is used (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). The Chace-circle is defined as a warm-up mirroring exercise involving a prescribed ten-minute timeframe and is described as creating a chance for each practitioner to experience insights of themselves as a moving individual (Mastrominico et al., 2018). The practitioners in the interview findings, although incorporating a Chace-circle within their practice, do not use a prescribed timeframe. Influences of Chace in terms of mirroring are identified in UK practice, but the term Chace-circle is not commonly used amongst UK based practitioners who are working with autistic adults. It may be that one-one work is

more prominent in UK-based practice and that the Chace-circle lends itself to group-based work (Karampoula and Panhofer, 2018).

A clinical method was also reported by a quarter of practitioners in the interview findings was 'play'. Similarly, the systematic review of the DMP literature identified studies that used imagination through role-play, which is an aspect of play (Koch et al., 2015; Mateos-Moreno and Atencia-Dona, 2013). Additionally, two other studies used play as a means of interaction through dyadic attunement (Koch et al., 2015; Hildebrandt et al., 2016). Play is defined in the wider literature as a developmental process, as well as an activity base (Kent et al., 2021). González-Sala et al's. (2021) study reported that children who have autism can experience challenges with pretend and symbolic play, as well as spontaneous play. If these areas are not supported in childhood; they will continue to be present in adulthood (Fein, 2015). Therefore, seeing play as a clinical method in four of the interviews, as well as four studies in the DMP literature, it suggests that play is that it is an important aspect of DMP intervention when working with autistic adults.

The most common clinical method noted in the interview findings was 'imagery' and was reported by four practitioners. Unlike the inclusion of play in both the findings and DMP literature, imagery was not commonly seen in the systematic review. The findings reported that this clinical method was only explicitly mentioned in the international interviews and did not appear in the UK-based interviews. Imagery appeared in the international-based interview findings, although did not appear in the UK-based interviews. The systematic review revealed that one study included imagery to increase communication and social skills, as well as motivation to participate in DMP sessions (Wadsworth and Hackett, 2014). It was defined in an AP study that imagery provides a way of tapping into a person's most primitive way

of understanding and responding to the world (Stergiou, El Raheb and Ioannidis, 2019). Imagery “introduces metaphorical language and personalized communication” (Riley, 2001: 56).

Seen in the international interview findings by three practitioners, metaphor is used in DMP practice. In the systematic review of DMP literature two studies stated that they used metaphor in the verbal processing section of a manualised approach (Hildebrandt et al., 2016) and within movement expression (Koch et al., 2015). It is surprising that metaphor was not used in the DMP intervention of Wadsworth and Hackett’s (2014) study since the creative arts therapy scale that is used as an outcome measure in the study, includes metaphor within the descriptor ‘linking’.

Although in the wider literature it is stated that the comprehension for using metaphor can be challenging for individuals who have autism; it was suggested that upcoming research and interventions targeting an improvement in metaphor comprehension in individuals who have autism is needed (Kalandadze, Braken and Bottegaard, 2021; Morsanyi, Stamenkovic and Holyoak, 2020).

In conclusion, both imagery and metaphor are used in DMP practice, although the number of occasions where it is reported across the interview findings and literature are few and therefore, they are not common clinical methods. Additionally, both imagery and metaphor are being used in DMP practice internationally and do not appear in the interviews that are based in the UK.

The less commonly used clinical methods included Baum-circles; improvisation; grounding techniques and verbal reflection and discussed by two practitioners each within the findings of the interviews. What was unexpected is that in the manualised approach seen in the DMP literature, Baum-circles and verbal processing was commonly seen (Hildebrandt et al 2016; Koch et al., 2015; Mastrominico et al.,

2018). No other studies in the systematic review of the DMP literature used the mirroring exercise of a Baum-circle. The manualised approach defined a Baum-circle as a prescribed time-based mirroring activity, which involved one group member selecting a piece of music and improvising whilst the rest of the group followed their movements (Mastrominico et al., 2018). The improvisation was only recognised in two of the manualised approach studies and through the method of a Baum-circle and dyadic movement (Hildebrandt et al., 2016; Mastrominico et al., 2019) the study that used a six-part story method (Wadsworth and Hackett, 2014) and an observational single-case study (Koehne et al., 2016). Since Baum-circles only appear in two interviews and only the manualised approach studies, the confidence in this key part of DMP practice appears to be low.

Improvisation is reported in over half of the studies in the literature (Hildebrandt et al. 2016; (Koehne et al., 2016; Mastrominico et al., 2019; Wadsworth and Hackett, 2014). In music therapy, improvisation appeared to be a key part of practice seen in a recent systematic review of the literature (Gattino et al., 2013). It was unpredicted that improvisation was not in the interview findings as it was seen more commonly in the DMP literature. The clinical methods of a Baum-circle and verbal processing seen in the manualised approaches may have contributed to the higher level of improvisation being used; the interview findings did not include Baum-circle and verbal processing commonly. Overall, improvisation did not appear to be a key aspect of DMP practice in the findings and confirmed by the literature. Attention to the area of improvisation should be considered within DMP practice since spontaneous interaction and synchronisation can be challenging for autistic adults (Brezis et al., 2017). Some of the above clinical methods can be utilised in the process of holding and containment, which will be discussed in the next section.

7.3.2 Holding and containing

Holding and containment is an aspect of therapy that makes the individual feel held and safe (Finlay, 2016). The interview findings noted different aspects of holding and containment and three initial codes emerged: physical holding, analytic holding, emotional containment. Reiterating from the background information (chapter one); 'physical holding' is a Winnicottian theory that is centred on the physical relationship between a mother and her child (Hegstrup, 2008). 'Analytic holding' is defined as the therapist attuning with their clients' feelings while remaining grounded (Finlay, 2016). Lastly, 'emotional containment' is where the therapist creates a space that expresses a feeling of safety where emotions can be processed (Greenwood, 2019).

In the literature, physical holding was not explicitly mentioned, which is surprising considering individuals who have autism commonly lack an internal representation of themselves and others (Vishne et al., 2021). Touch used in the process of therapy may include deep pressure work or massage to develop an individual's perception of the internal body (Price and Hooven, 2018). Therefore, the aspect of physical holding is most likely being used in the DMP literature that incorporate the use of touch such as Edwards' (2014) study, although it is not clearly stated. In the wider literature the use of touch in holding is not commonly seen, although with DMP being a body-based psychotherapy the use of touch helps to provide the physical reassurance of safety (Finlay, 2016). In the interview findings, physical holding was reported by 17 practitioners. This high level of reporting is in stark contrast to the sparse inclusion in the DMP literature for autistic adults. The findings support the importance of physical holding through the use of touch in DMP for autistic adults.

Considering, 'affect attunement' was only recognised in two of the systematic review (Hildebrandt et al., 2016; Koch et al., 2015); attunement, which is a core component of analytic holding (Finlay, 2016), was more commonly seen in the interview findings reported by eleven practitioners. An AP study stated: "through multisensory art activity and attunement with the art therapist in a safe holding space, AP beneficially affected Tom's sensory dysfunction and self-regulation difficulties" (Durrani, 2014: 100). Therefore, the findings highlighted analytic holding is a commonly used aspect of holding within DMP practice for autistic adults. Aside from holding, containment was another aspect reported in the interview findings.

'Emotional containment' could be seen as a general process within the therapeutic relationship with a client (Finlay, 2016). In the literature, only one study mentioned containment as part of the modalities of interpersonal mirroring in DMP (Koch et al., 2015). Therefore, the literature does not confirm that emotional containment is common. However, it was explicitly commented by eleven practitioners in the interview findings that they identify containment within their practice, therefore showing significant commonality. Moreover, a systematic review study found that in AP intervention, experiences can provide containment while increasing coping skills and decreasing anxiety (Lith, 2016). This, and the high level of commonality in the findings supports including containment in the understanding of how DMP practitioners work with autistic adults.

7.3.3 Props

The focused codes under the 'what' item included: 'props'; 'music resources'; 'creative mediums'; 'communication tools'; 'drama and play-based resources'; 'sensory items'; 'dress up'. The findings from the interviews revealed that the three

most common materials included: music; balls; lycra stretch cloth. Music was grouped under the focused code music resources and balls and lycra stretch cloth under the focused code 'props' Less common materials included props such as balloons; drawing materials; ribbons; games; sensory props; streamers; steppingstones; soft toys; puppets, as well as a music resource; instruments. There were other materials that only appeared on one occasion and were not a common theme in the findings (see figure 8 in the findings chapter for a description of these materials).

Music was the most common material used in DMP sessions and was reported by 12 practitioners. In the interview findings two practitioners commented that they used percussion instruments within their sessions. The review reported that six of the studies incorporated music in their sessions (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). The only study that did not include music was Edwards (2014). Additionally, three of the manualised approach studies commented that they used music for the Baum-circle and dyadic movement sections of the session (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018).

In the wider literature, music is a form of non-verbal communication and through playful interaction it addresses the barriers in social interaction. Therefore, it confirms that not only do the principles of MT overlap with DMP; music as an art form is evidenced to increase social and communication skills in individuals who have autism (Sharda et al., 2018).

The findings reported that props were frequently used in DMP practice with 11 practitioners reporting balls being most commonly used. It could be seen in a study that children who have autism can experience challenges in the use of objects “alterations in manipulation, exploration and describing” (Savarese, Manzi and Iannaccone, 2017). In the systematic review less than half used props within their work (Edwards, 2014; Mateos-Moreno and Atencia-Dona, 2013; Wadsworth and Hackett, 2014). Additionally, these three studies used balls. One study used balls for the closure section of the session and invited the client to practice squeezing and releasing to connect with the breath and encourage the individual to be aware of the environment around them (Wadsworth and Hackett, 2014). Edwards (2015) study used the balls as sensory integration. The combined MT and DMP study incorporated balls into their intervention during the role-play section and using props including a ball when the emotions of the character was being depicted (Mateos-Moreno and Atencia-Dona, 2013).

None of the manualised approach studies (Hildesbrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018) incorporated props within their work. However, one study gave an example of impaired motor empathy in a child who has autism, and the vignette description talked about using a ball pit (Mastrominico et al., 2018). Interestingly, this manualised approach study did not include balls within the sessions. It was surprising that balls were not used more commonly in the systematic review studies since over half of the interview practitioners reported this in the findings. Since the use of balls was present in the literature to develop awareness, enhance sensory integration, increase motor empathy, and is used in roleplay, balls are a significant prop in DMP practice.

Seven practitioners reported using lycra stretch cloth. The awareness of self and others was built through a simple interaction of using lycra stretch cloth. An RCT study commented that utilising props such as lycra stretch cloth could provide body tactile and proprioceptive sensations, as well moving the body to feel resistance (Schaaf et al., 2013). A similar prop called a body sock is used in occupational therapy and is a strategy used to provide physical security, provide calmness and to enhance physical body boundaries (Piller and Barimo, 2019).

One study in the systematic review discussed how lycra stretch cloth was used during mirroring exercises and was a way to increase eye contact and establish a relationship (Wadsworth and Hackett, 2014). In the wider literature it was reported that movement can develop cohesion, as well as a way of belonging and through using props such as lycra stretch cloth builds a cohesive relationship (Chaiklin and Schmais, 1993). It was therefore surprising that props such as lycra stretch cloth were not commonly used in the DMP literature considering the social and expressive benefits.

Other props were mentioned by the practitioners in the interview findings including balloons; ribbons; games; sensory props; streamers; steppingstones; soft toys; puppets. However, these props were not frequently used. The focused codes 'drama and play-based resources' and 'sensory items' were also less commonly seen.

There was one instance identified in the review of incorporating these focused codes including games in relation to identifying and representing emotions, and sensory items (Mateos-Moreno and Atencia-Dona, 2013; Edwards 2014). Similarly, the focused codes 'creative mediums'; 'communication tools'; 'dress up' were not

commonly reported and were not seen in any of the systematic review studies. One study in the systematic review mentioned different props that did not appear in the interview findings including dolls, cardboards, hoops, elastic straps (Mateos-Moreno and Atencia-Dona, 2013). Two practitioners in the interviews mentioned using soft toys and puppets, although there was no commonality across the interviews.

Similarly, postcards were mentioned by one interview practitioner, although like soft toys and puppets, it was not a common theme. Pictures were used as stimuli for creating movement stories (Wadsworth and Hackett, 2014). Linking to the point previously outlined in the 'holding and containment' section of this chapter, objects can act as a transitional object to project emotions onto (Winnicott, 1971).

Therefore, it was surprising that toys and picture postcards were not more commonly used in DMP practice. Overall, the use of props is very common in DMP practice with autistic adults. However, outside of music, balls and lycra stretch cloth there are no specific props that are commonly used. A big variety of props are commonly used in DMP practice, including music resources, balls and lycra stretch cloth. Props can be used to provide or lessen sensory stimuli.

7.3.4 Sensory considerations

Various sensory considerations were reported in the findings including sound sensitivities; lighting sensitivities; size of room considerations; olfactory stimuli; temperature of the room; type of flooring; outdoor space and colours of the room.

There were seven practitioners in the interviews who highlighted sensory needs as being an important factor within their work. However, the most common sensory consideration was sound sensitivities and was reported by four practitioners. One practitioner mentioned how sound in the room should be quiet and that there should be as little disturbances as possible (Practitioner 13; female; USA). In the

systematic review of the literature the only study who explicitly focused on sensory needs was Edwards (2014). In Edwards's (2014: 12) study it was stated that "all four practitioners explained that background noise caused significant difficulties". None of the other systematic review studies commented on sound sensitivities in their work. However, in the wider literature a study reported that auditory sensitivities are common for people who have autism (Kuiper, Verhoeven and Geurts, 2019). The DMP practitioner may be aware of an overload, and the type and volume of sound is monitored to reduce any building anxiety. Therefore, attuning to what the individual is presenting and finding ways to support what may appear overloading could be an important aspect of a DMP intervention.

The second most common sensory consideration was lighting sensitivities and was reported by four practitioners in the findings. One participant mentioned that bright, fluorescent lighting was unsettling for individuals and did not provide a calming environment. There was a gap seen in the DMP literature, as only one study mentioned how sensory considerations were made to accommodate each individual's sensory needs, and how the lights were turned off during the day if needed (Edwards, 2014). In the wider literature, lighting sensitivities are commonly seen in individuals who have autism (Mallory and Keehn, 2021). It is therefore surprising that the interview findings reported a quarter of practitioners being mindful about the lighting; yet the systematic review only highlighted this in one study.

'Olfactory stimuli' and 'size of room' were two other sensory considerations that were each reported by two practitioners in the interviews. One of the systematic review studies reported on olfactory stimuli and commented that individuals sometimes sought after and reminisced certain smells or that smell was avoided due to hypersensitivity (Edwards, 2014). In the wider literature it was highlighted that there

is evidence showing a pattern of altered olfactory processing seen in individuals who have autism (Sweigert et al., 2020). Although it can be seen in the interview findings and one of the studies in the DMP literature, olfactory stimuli is not a common theme and is specific to the individual's needs.

The size of room was reported in the interview findings by two practitioners. It was commented that the size of room needs to not be too big otherwise individuals may feel lost. One study in the systematic review of the literature commented that the size of the room was 60 m² (Hildebrandt et al., 2016). It was not further commented regarding the significance of this, although this is a very large space. Consideration of what constitutes a reasonable sized space was commented on by the two interview practitioners.

A study in the wider literature mentioned keeping an appropriate distance from others is central for creating effective communication and interpersonal associations for individuals who have autism (Asada et al., 2016). Therefore, the size of the room is an important sensory consideration. Too small a room will feel enclosed and give less space for the individuals to move and leave enough leave between them for comfort. Too large a room, may make the individuals feel lost and the distance between them becomes too great for them to find ways of connecting. The distance at which an individual who has autism feels safe and comfortable and can communicate more easily, will differ between individuals (Asada et al, 2016). Other sensory considerations such as olfactory, lighting and sound, are also individual needs specific. The same applied to the other sensory considerations that appeared in one interview each. One sensory consideration, though this was organised under the focused codes 'clinical methods' and 'physical holding', was 'touch'.

Touch was reported in over a third of the interviews and appeared in two of the systematic review studies (Edwards, 2014; Koehne et al., 2016). It was reported that in a sensory difference observation; a hypersensitivity to light touch was seen (Edwards, 2014). Another study commented that to avoid sensory overload “interpersonal connection through ropes instead of direct touch” was used (Koehne et al., 2016: 30). Physical touch is a common aspect of DMP intervention, and it was not surprising that this was seen in the DMP literature. As previously mentioned in the clinical methods and holding sections of this chapter; touch has been evidenced to help decrease stress levels in individuals who have autism (Kuehn, 2016). Sensory considerations are common in DMP practice and are not commonly highlighted in the studies that test the efficacy of DMP for autistic adults. The findings indicate that though sensory considerations are commonly part of DMP practice for autistic adults, the individual(s) are assessed on an individual basis to understand what their needs are and how these are to be supported.

7.3.5 Assessment and evaluation

The interview findings reported that ten practitioners devised their own assessment process. It was reported that six practitioners conducted observations, and three practitioners mentioned that they included using Bartenieff fundamentals and Laban Movement Analysis within their assessment process (Bartenieff and Lewis, 1980; Laban, 1956). One practitioner did not discuss any details. Whereas nine practitioners mentioned that assessments were organisational-based. Regardless of the assessment process used, the time period for the assessment process was three-six weeks on average.

Across the interview practitioners, the evaluation of sessions involved five different methods: written reports, use of outcome measures, questionnaires, verbal reflection

and performance to monitor progress. There were three practitioners who used outcome measures to monitor progress including the Core LD, Outcome Star and SCQ. Additionally, there were four practitioners who reported that they used a questionnaire on a weekly basis, although the type of questionnaire used was not detailed.

In the systematic review, outcome measures were used in six of the studies. These included: Questionnaires (Scale for the Assessment of Negative Symptoms – SANS) prior to and after the intervention period (Hildebrandt et al., 2016); self-report scales (Heidelberger State Inventory), used for intervention and control groups as the pre and post-test (Koch et al., 2015); pre-test questionnaires and a variety of diagnostic observational measures including Empathy (IRI/SPF-E), Emotional Empathy (CEEQ), Cognitive Empathy (CEEQ) (Mastrominico et al., 2018); Revised Clinical Scale for the Evaluation of Autistic Behaviour (ECA-R) (Mateos-Moreno and Atencia-Dona); Creative Arts Therapies session-rating scale (CAT-SRS) Emotion symbol selection BASIC-Ph scale (Wadsworth and Hackett, 2014). Only one study did not use outcome measures and the evaluations were self-reported by three of the four practitioners (Edwards, 2014).

Three practitioners used outcome measures in the interview findings which seems low compared to the systematic review where only one study did not provide details regarding the assessment process (Edwards, 2014); the other studies used outcome measures as a way of evaluating the DMP sessions. It can be seen that outcome measures which are used to assess the individual and evaluate progress is commonly used in research and less commonly seen in the interview findings. The common use of outcome measures in research could be due to the need to measure results for the research giving a reason for their use.

In the interview findings the type of clinical setting may influence the process of assessments and evaluations. Of the three practitioners who used outcome measures, two worked in an education setting and the other one worked in a hospital setting. However, this is inconclusive as to whether the clinical setting does influence the use of outcome measures, as two further practitioners worked in a hospital setting without explicitly commenting on the inclusion of outcome measures in their work. Additionally, whilst the two education-based practitioners both used outcome measures in their work, this is too a small population to draw conclusions from.

Summary

For the 'what' item of the TiDier checklist, the most common clinical methods were mirroring, affect attunement, story and narrative, breathing and touch. Mirroring was also common within the systematic review studies; however, this was used in a time prescribed manner in these studies. This contrasts with how mirroring is used in practice where there is no time limits or prescribed exercises. Affect attunement, story and narrative, breathing and touch, appeared in the systematic review studies, and however only in one or two studies each. There is a key contrast between the high frequency of these in the findings compared to the low frequency in the systematic review. Many other clinical methods appeared in the findings and the systematic reviews. Whilst these were not common, DMP needs to be adaptive to the individuals' needs, and the large variety of clinical methods helps to ensure that adaptability.

Physical holding was mentioned in almost all the interviews. This contrasts with the systematic review where it only appeared in one study (Edwards, 2014). Similar contrasts appear for analytical holding and emotional containment. In the systematic

review, there is very little evidence of these aspects of holding, whereas in the findings they appear regularly. All three aspects of holding do have evidence in the wider DMP and arts therapies literature.

The use of music is prevalent across the findings and is also common in the systematic review studies. Additionally, balls and lycra stretch cloth are common props in the findings; however, these did not appear commonly in the systematic review studies. A large variety of other props were mentioned in the findings and this variety allows for adaptability in meeting the individualistic needs of autistic adults.

Sensory considerations were a common theme in the findings. However, only one study in the systematic review discussed the importance of sensory needs. The wider literature supports the importance of sensory considerations when working with autistic adults. Common sensitivities in the findings were to sound and light, and the size of the therapy space. However, sensitivities will be highly specific to the individual.

Outcome measures were very common in the systematic review studies. This contrasts with the low commonality in outcome measures seen in the findings. However, the frequent use of outcome measures in the systematic review studies can be ascribed to the need to gather results for the studies. Therefore, outcome measures are not seen to be commonly used in DMP for autistic adults. Next, the 'who' item will be discussed.

7.4 'Who'

The 'who' item in the TiDier checklist is described as each intervention provider's expertise, background and any specific training given (Hoffmann et al., 2014). The focused codes 'practitioners'; 'culture'; 'length of service and qualifications'; 'beliefs';

'language and terminology' are organised under this item and will be discussed sequentially.

7.4.1 DMP practitioners

The interview findings included 19 practitioners who varied in age, although most commonly were in the 31-40 years age bracket. Additionally, the gender of the DMP practitioners were predominantly female with only two male practitioners. There are gaps in the literature regarding age distributions and gender ratios for DMP practitioners. Therefore, it is not known if the age distribution and gender ratio seen in the practitioners from the findings are typical. This study was not an age or gender comparison study, and there were no age distribution or gender ratio targets for the recruitment.

7.4.2 Culture

The findings reported that the culture of the practitioners varied, reflecting the differences highlighted across the ten countries participating: Australia (n=2); Canada; Germany; Greece; Hong Kong (n=2); Netherlands; New Zealand; Philippines; United Kingdom (n=7); United States of America. The spread of countries provides initial new findings, as the systematic review of the DMP literature contained evidence of four studies from Germany (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018), two from the UK (Edwards, 2014; Wadsworth and Hackett, 2014), and one from Spain. (Mateos-Moreno and Atencia-Dona, 2013). An ethnographic study would involve in-depth observations of groups of people and examining the influence of cultural on their social interactions (Jones and Smith, 2017). However, there may be key differences

in DMP practice through the influence of culture. Marsella and Yamada (2010: 105) stated:

“Culture is shared learned behavior and meanings that are socially transmitted for “purposes of adjustment and adaptation”.

This study has an international focus, and in particular, the experience, background and lived experience of the practitioner may be a contributing factor to how they work, as well as the language and terminology used.

7.4.3. Length of service and qualifications

The interview findings reported that five-to-ten years' experience was the most common length of time practitioners had been practising with autistic adults. The length of time that the therapists had been practising was not disclosed in the systematic review studies.

In the interview findings the practitioners' background was gathered, and it was reported that the most common training was a Masters in DMP/T. There were five individuals who had a PhD (n=3) or a counselling background (n=2) in addition to their DMP/T training. In the systematic review, only one practitioner explicitly mentioned that they had additional training and that this was as a Cognitive Behavioural Therapist (Koehne et al., 2016). However, this was only one researcher out of the three other co-researchers for that study.

In four studies in the systematic review there was the presence of a co-therapist (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013). This contrasts with the interview findings where no DMP practitioner stated that they worked with a co-therapist. One of the systematic review studies was a combined DMP and MT study (Mateos-Moreno and

Atencia-Dona, 2013). The fact that there was a co-therapist who was either from a different arts therapy modality or a psychology graduate/student may change in terms of approaches utilised. Additionally, beliefs are another important consideration when understanding who the practitioners are.

7.4.4 Beliefs of DMP practice

In the interviews there were three practitioners who explicitly shared their beliefs. Beliefs are an aspect of culture that can impact on the way that the therapist practices (Malkawi et al., 2020). One practitioner commented that they do not believe in diagnosis and want to see the presentation of the individual opposed to seeing their label. The fact that 18 practitioners in the interviews used a person-first language confirmed that this was a mutual belief amongst the practitioners, although was not explicitly stated. Two more practitioners shared the belief that individuals are misdiagnosed and that trauma is a more prominent feature within the clinical presentation. Beliefs were disclosed infrequently during the interviews, and it was questioned by the researcher if the practitioners felt safe to disclose their personal beliefs. There may have been an element of the DMP practitioner's not disclosing beliefs, and commenting more in line with the theoretical approach, as it provides more credibility to their work. It was surprising that there was not more disclosure regarding beliefs, particularly as this is an international study. The CGT methodology meant that interviews focused on the process of human interaction and aimed to explain human behaviour opposed to an ethnographic study, which would look at the insider's perspective (Bolderston, 2012).

In the systematic review only one study explicitly discussed beliefs and mentioned that they believe that individuals with "low intellectual functioning" (Koehne et al.,

2016: 20) might benefit from the intervention in an adapted form. Therefore, the interview findings, although very few, disclosed more about the practitioners' beliefs compared to those seen in the research. However, in the research studies, it would appear uncommon for practitioners to disclose beliefs apart from methodologies that include reflexivity, as it may bias the findings/results (Young, 2009). The findings reported that beliefs are not explicitly discussed in the systematic review of DMP literature, and they are also not common in the findings. The participants who disclosed their beliefs regarding misdiagnosis and recognition of trauma, may have adapted their practice to accommodate the individuals' needs. An ethnographic methodology would have further explored the beliefs in more depth and how they influenced the DMP practitioner's practice.

7.4.5 Language and terminology

Person-first language was most commonly seen in the interview findings and was reported by 18 practitioners. In the wider literature it is reported that person-first language is most commonly used amongst professionals and use the term 'individuals who have autism' (Botha et al., 2021). Whereas identity-first language is used amongst self-advocates and the term used in this instance is 'autistic individual' (Botha et al., 2021). It was, therefore, not unexpected that in the systematic review studies the person-first term was most commonly used since the interviews and studies were conducted by DMP practitioners.

It could be seen that the language in the studies was more medicalised and used terms such as 'severity'; 'high and low functioning'; 'deficits'; 'suffered from severe, moderate or mild'. The interview findings reported negative connotations being used and included the terms 'mentally retarded'; 'severe problems'; 'high and low

functioning'; 'comorbid syndrome of autism'. These terms appeared more commonly in the international interviews and not the UK-based interviews. It is therefore wondered if the practitioner's language translation contributes to the terms being used or if the interview practitioner has received a more medicalised training.

In relation to the terms being used, the interview practitioners interchange between 'client'; 'patient'; 'service user' and 'resident'. However, the systematic review of the literature highlighted that 'patient' was most commonly used and was seen in five of the seven studies. Person-first language is most commonly used, and the terms used when referring to practitioners is interchangeable or referring to autistic adults. The difference in language may have been influenced by the culture and translated experience, views and behaviour (Chiu, 2011). The international nature of this study has highlighted the differences in the language that is being used in both the interviews and as seen in the systematic review.

Summary

For the 'who' item of the TiDier checklist, the most common age category of practitioners was 31-40. In the systematic review there was no specific disclosure to age and gender. Therefore, it is not known if the age distribution and gender ratio seen in the practitioners from the findings are typical. The qualifications of the DMP practitioners were also not formally disclosed in the systematic review. In the findings, the most common form of qualification was a DMP training at Masters level.

The findings reported that the culture of the practitioners varied, reflecting the differences highlighted across the ten countries. Some aspects of cultures that may affect the practice of DMP with autistic adults are where mental health issues are not commonly disclosed or carry a stigma of shame. Additionally, where there is a

culture of hierarchal obedience, the DMP practice can be more oriented to the individuals following instructions rather than the DMP practitioner responding in the moment. Culture is not explicitly discussed in the systematic review studies and therefore no comparison can be made.

Beliefs were not commonly shared in the findings or in the systematic review studies. Where beliefs were shared in the findings, they centred on distrust of the accuracy and the helpfulness of autism diagnoses.

Language and terminology tended towards person-first in the findings. This was a commonality in the systematic review also. In the systematic review, medicalised terminology was common and the term for the individual was most commonly patient. Four out of the seven systematic review studies were conducted in medical-based hospital/clinic, and this may explain the common use of medical terminology. In the findings, the terminology varied widely and with much less medical terminology being used. There was negative language used in both the systematic review and findings such as 'retard' and 'low intellectual ability' and 'severity'.

Next, the 'how' item of TiDier will be discussed.

7.5 'How'

The 'how' item in the TiDier checklist is described as the mode of delivery of the intervention and whether it was provided individually or in a group (Hoffmann et al., 2014). The focused code within this section includes 'structure'.

7.5.1 Structure

In the interview findings most commonly a structured approach was used and reported by 17 practitioners. There were three practitioners that did not detail how

the sessions were structured, although commented that their sessions had a clear beginning, middle and end. It can be seen that structure and routine is important, as it provides familiarity and predictability, which is ultimately less anxiety provoking (NAS, 2022). The evidence review confirmed that a structured approach to DMP intervention was most common and seen in five of the studies (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Wadsworth and Hackett, 2014). One study was semi-structured and most likely due to the intervention being a combined DMP and MT intervention (Mateos-Moreno and Atencia-Dona, 2013). Another study reported that their sessions were unstructured (Edwards, 2014). Both the interviews and systematic review of the literature highlighted that structure is commonly used in DMP intervention for autistic adults.

Summary

For the 'how' item of the TiDier checklist, structured sessions were common in both the systematic review and the findings. However, there was a contrast between the manualised, time prescribed, highly structured sessions seen in four of the systematic review studies (Hildebrandt et al, 2016; Koch et al, 2015; Koehne et al, 2016; Mastrominico et al, 2018), and the less prescribed structure seen in the findings.

Next, the 'where' item will be discussed.

7.6 'Where'

The 'where' item in the TiDier checklist is described as the type of location where the intervention took place (Hoffmann et al., 2014). The focused codes 'location of practitioners'; 'context of sessions' are organised under this item and will be discussed sequentially.

7.6.1 Location of practitioners

The interview practitioners were from ten different countries which as discussed in section 7.6.2 did bring some initial new findings about culture to the study. The most common location of practitioners in the systematic review was Germany with four studies (Hildebrandt et al., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018), two studies were UK-based (Edwards, 2014; Wadsworth and Hackett, 2014), and one conducted in Spain (Mateos-Moreno and Atencia-Dona, 2013). The interview findings in this study included views from DMP practitioners in countries not previously in the published evidence. For both the interviews and the systematic review, the locations included were confined by the exclusion of non-English speaking practitioners.

7.6.2 Context of sessions

In the interview findings, the context of where sessions took place varied. Please see findings chapter (chapter six section 6.5.1 for more details). Community-based work was most common and was reported by six practitioners. The systematic review identified only one practitioner working in the community and two practitioners each working in a rehabilitation centre; training and therapy centre; a hospital setting. In the wider literature it is seen that each individual's sensory needs should be considered before determining the type of setting where sessions should take place (NICE, 2020). Community-based work may be more common. For the UK, this may be more common due to self-funding through social care to be used for private services (NHS, 2022); however, for other countries, it remains unclear why community work is more common. The international nature of this study highlighted that community-based work was a shared commonality. Funding could have been a

contributing factor to the length, frequency and duration of sessions. An ethnographic study would further explore whether the reasons for community-based work is for cultural reasons.

Summary

For the 'where' item of the TiDier checklist, the locations of the practitioners in the findings and the systematic review studies, was highly influenced by the need for them to speak English or for the studies to be in the English language. The locations for the systematic review studies were Germany, England and Spain. The interviews were more widely spread internationally.

The context of sessions was most commonly community-based in the findings. In the systematic review, it was more focused on medical and education-based settings. With community-based settings only being reported twice.

Next the 'when and how much' item will be discussed.

7.7 'When and how much'

The 'when and how much' item in the TiDier checklist is described as the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration (Hoffmann et al., 2014). The focused code 'length, frequency and duration' are organised under this item and will be discussed.

7.7.1 Length, frequency and duration

In the interviews, it was common that sessions were under one hour in length and this was reported by 11 practitioners. The session length was unexpected since the systematic review evidence reported it was most common that 1-1 ½ hour sessions

were conducted (Hildebrandt et al., 2016; Koehne et al., 2016; Koch et al 2015; Mastrominico et al., 2018). Two studies did not disclose the session length (Edwards, 2014; Mateos-Moreno and Atencia-Dona, 2013). The only study that was less than an hour in length as seen in the interview findings was Wadsworth and Hackett (2014). There was not a rationale for why the sessions were less than one hour in length, although a music therapy study reported that one-one sessions were typically 20 minutes (Geretsegger et al., 2014). Although it may not be a conscious decision; arts therapist maybe adapting to the needs of the individual (Cooper, Loades and Russell, 2018). The interview studies that reported sessions being less than one hour, similar to the music therapy study, were mostly to one-one work.

One-one work was most prominent in the interviews, which was unexpected in comparison to the systematic review of the DMP literature where groups were reported in six studies (Hildebrandt., 2016; Koch et al., 2015; Koehne et al., 2016; Mastrominico et al., 2018; Mateos-Moreno and Atencia-Dona, 2013; Edwards, 2014).

The interview findings reported that all one-one work was conducted weekly and only one practitioner reported that they offered twice weekly sessions, although this was for a group-based session. In the systematic review six studies conducted weekly sessions and the combined DMP and MT study did twice weekly sessions (Mateos-Moreno and Atencia-Dona, 2013). As well as the length and frequency of sessions, the duration was reported to be long-term across the 19 interview practitioners.

The review findings differed with short-term work being more common. It is most likely that the short-term nature is due to research constraints, particularly funding being available for a limited timeframe (Bloch and Sorensen, 2015). In wider

literature, it has been reported in a MT study that long-term work with autistic adults is common (Boso et al., 2007). This view was supported by a systematic review which confirmed that long-term management is essential for autistic adults to support growth and development (Mason et al., 2019).

Most commonly DMP sessions are less than an hour in length, practiced on a one-one basis once per week, as well as being long-term in duration. The findings identify a gap in the evidence of DMP literature, as studies are predominantly one hour or more. Only one study explicitly stated that DMP sessions were less than one hour in length (Wadsworth and Hackett, 2014). The long-term duration is salient in the interview findings, as the existing literature highlighted that the duration of therapy was short-term. However, the duration in the studies may be dictated by the constraints of the research opposed to the needs of the individual(s).

Summary

For the 'when and how much' item of the TiDier checklist, the findings reported that the length of session was most commonly under one hour in length. In the systematic review, four studies commented that sessions were typically 1-1 ½ hours in length. This contrast may be explained by the predominance of group sessions in the systematic review studies compared to the predominance of one-to-one sessions in the findings. The frequency of the sessions in both the systematic review and the findings was most commonly weekly. A big contrast was seen in the duration of therapy where the findings were typically long-term work over one year, and the systematic review studies being short-term work up to 17 weeks. This contrast may be explained by the need for studies to adhere to research time limits.

7.8 Synthesis of TiDier checklist summaries

The 'why' item of the TiDier checklist highlights the importance of adaptability in the practice of DMP with autistic adults. From the focus on a multimodal theoretical approach opposed to a singular theoretical approach, to the widely varied range of aims and goals of practice that are specific to needs of the individual; this adaptability is highly visible in the findings.

A wide variety is also seen in the clinical methods and props aspects of the 'what' item of the TiDier checklist. Both aspects have specific commonalities such as music in props, and mirroring and affect attunement for clinical methods. However, the occurrence of many less common props and clinical methods again highlights the adaptability inherent in DMP practice for autistic adults. Another aspect of the 'what' item that highlights the adaptability is the importance of sensory considerations that are specific to the sensitivities of each individual. Sound, lighting and size of room were commonly seen; however, the DMP practitioner would need to learn and adapt to the specific sensitivities of the individual, as they build the therapeutic relationship. Physical holding was all encompassing in the findings with a high commonality of touch and deep pressure work within DMP practice for autistic adults. However, this would need to be tailored to the needs of the individual. Analytical holding and emotional containment are also highly prevalent in DMP practice with adults who have autism.

The age, gender and qualification aspects of the 'who' item of the TiDier checklist are highly subjective to the recruitment methods and inclusion criteria for this study. Culture was seen to have an impact on the practice of DMP for autistic adults where it dictates the following of instructions from the DMP practitioner to the individual, as opposed to responding in the moment, and where there is a culture of shame and a

non-disclosure of mental health issues. Beliefs were not commonly disclosed in the findings, and where they were, they centred on distrust of the accuracy and the helpfulness of autism diagnoses. Person-first language was most common in the findings. However, other aspects of language and terminology such as the use of medicalised language varied considerably. There was a theme of negative language seen in the international interviews such as 'retard'; 'low intellectual ability'; 'severity'.

In the 'how' item of the TiDier checklist, sessions are predominantly structured with a clear beginning, middle and end. However, they do not adhere to a time prescribed manualised approach. The mode of delivery is universal in one-to-one sessions being provided. There were some group sessions being conducted; every single practitioner provided one-to-one sessions.

Community-based settings were predominant in the context aspect of the 'where' item of the TiDier checklist. However, there were a variety of other settings such as hospitals, education centres, rehabilitation, residential homes and private practice.

For the 'when and how much' item of the TiDier checklist, a session length of under one hour was near universal in the findings. The frequency of sessions was weekly, and the duration was long-term and over one year.

7.9 Model of DMP practice for autistic adults

In the above sections, the findings have been applied to the TiDier checklist and contextualised with the findings of the systematic review and broader literature. This provides the evidence-base for an evolving theory about 'how' the DMP intervention can be delivered. The framework evidence highlights that due to autism being a spectrum of needs with each individuals experience and presentation of autism being different, adaptability and a focus on the individuals' specific needs is of

paramount importance in the practice of DMP for autistic adults. The common use of person-first language alongside a multimodal theoretical approach with emphasis on person-centred is key to seeing the individual who the DMP practitioner is working with. The needs of that individual dictate the therapy that is offered including the aims and goal of practice, sensory considerations that govern how the space will be set up, and the methods and props utilised within the sessions. Additionally, the structure of sessions including a clear beginning, middle and end, regular frequency, and long-term duration provide predictability and familiarity for an individual who has autism. However, this needs to be flexible for the individual and not rigidly applied to all individuals.

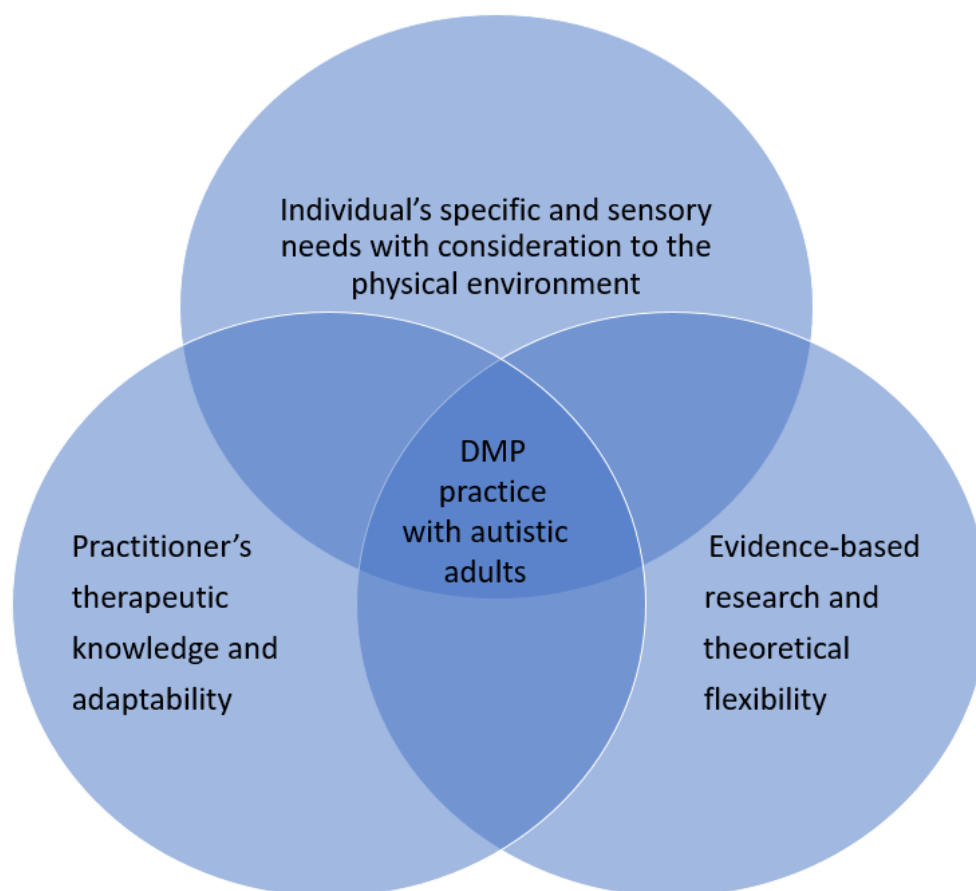
A theory is defined as:

“In the scientific field the word “theory” is used as a plausible general principle or body of principles offered to explain a phenomenon. In more philosophical context, what is expected from a theory is a model capable of predicting future occurrences or observations, being tested through experiment or otherwise verified through empirical observations”. (De Benetti, 2009: 37).

The definition above describes a theory as an explanation of a phenomenon. In relation to this study, the phenomenon is the practice of DMP for autistic adults. To explain this phenomenon, this study has gathered evidence and analysed this evidence to generate an overall conclusion that explains the phenomenon of how DMP practitioners work with autistic adults.

Guiding principles for DMP practice for autistic adults have been generated through a CGT methodology. An exploration of the findings within the context of the wider literature, has identified the essence of DMP practice for autistic adults. The Venn diagram below displays a suggested evidence-based, theory-informed model of DMP practice with autistic adults.

Figure 13: Evidence-based, theory-informed model of DMP practice with autistic adults



My model of DMP practice explains how DMP practitioners work with autistic adults, and explains that:

DMP requires practitioners to provide therapy that encompasses theoretical flexibility based on the individual and specific needs of an adult who has autism. Particular considerations should be given to the environment and the individual's sensory needs. Evidence and the therapist's lived experience, beliefs and values enables the delivery of highly specialised adaptive dance movement psychotherapy.

7.10 Guiding principles for DMP practice from the evidence-based, theory-informed model

From the evidenced-based, theory-informed model above, the following guiding principles for DMP practice have been derived to inform future DMP practice with autistic adults.

1. Many theoretical approaches should be incorporated into the therapy. DMP practitioners should be theoretically flexible to meet the individuals' needs.
2. Aims and goals need to be co-constructed with the individual; however, DMP practitioners need to consider the following, as potential aims and goals of practice: social skills; self-expression; confidence and self-esteem; self-concept; regulation; communication skills; recognising the individual.
3. DMP practitioners should consider the sensory needs of autistic adults. The lighting, sound, room temperature, room size, and olfactory sensory aspects are all important to consider pre and during sessions based on the individuals' needs.
4. Mirroring, affect attunement, story and narratives, touch, breathing techniques and play should be included within sessions. However, DMP practitioners need to be aware of and understand a wide variety of clinical methods to allow for adaptability and flexibility in meeting the individuals' needs.
5. Props such as lycra stretch cloth and balls should be used and sessions should include some aspect of music; however, other props need to be considered if they help to meet the individuals' needs.
6. Sessions should have a structure with a clear beginning, middle and end; however, this should not be time prescribed, and it should be client-led.
7. Sessions should be less than one hour in length and based on the needs of the individual. Some individuals will only be able to manage short periods and may be building familiarity and predictability of routine before engaging for longer session lengths.
8. Sessions should be conducted on a weekly basis unless an individuals' needs contradict this.
9. One-to-one sessions should be available, as the varying needs of autistic adults mean that group work will not be suitable for some individuals.

10. It should be expected that DMP sessions will continue for a duration of over one year. Long-term work needs to be considered when allocating funding for sessions.

Summary of chapter

This chapter reviewed the interview findings within the context of the systematic review and the broader literature and through the lens of the TiDier checklist.

Through this, the research has been able to thoroughly analyse all aspects of the DMP intervention and this provided the necessary evidence base to create a theory-informed model of how DMP practitioners work with autistic adults. This has answered the research question of how do DMP practitioners work with autistic adults internationally and what informs their approach?

Compared to the DMP practice depicted in the systematic review, a number of elements have emerged through this analysis that were not previously included or given sufficient consideration within DMP research with autistic adults. These elements include sensory considerations, the adaptability and flexibility of practice, a multimodal theoretical approach with a focus on person-centred and person-first language, and a focus on the individual who is being researched and their individual specific needs. The above answers the research question of are there differences between the reported practice of DMP practitioners internationally and the practice of DMP in the existing literature?

Furthermore, guiding principles were devised from the evidence-based, theory-informed model of DMP practice to inform future DMP practice with autistic adults.

Next the conclusion (chapter eight) will look at the recommendations for future practice and research in the field of DMP with autistic adults and will consider the strengths and limitations of this research.

Chapter 8: Conclusion

This chapter will conclude the research study by giving an overview of the study, outlining the strengths and limitations of the study to support its transparency and rigour. The chapter will then present the original contribution to knowledge before outlining recommendations for DMP research and practice for autistic adults.

8.1 Study overview

This study aimed to identify how DMP practitioners work internationally with autistic adults and how their lived experiences, beliefs and values inform their approach. To do this, the research answered the following three research questions:

1. What is the current international evidence on how DMP practitioners work with autistic adults?
2. How do DMP practitioners work with autistic adults internationally and what informs their approach?
3. Are there differences between the reported practice of DMP practitioners internationally and the practice of DMP in the existing literature?

The methods that were employed in answering these research questions were a systematic review of the existing DMP literature for autistic adults, and semi-structured interviews with DMP practitioners internationally. A CGT methodology was employed to gather meaningful insights and construct meaning and theory from the evidence gathered from the interviews. Key findings that emerged were the importance of adaptability and flexibility in the practice of DMP for autistic adults. A need for focus on the individual and their specific needs encompassing a multimodal theoretical approach, considerations of the individuals' sensory sensitivities, the DMP practitioner having access to and the knowledge of a wide range of clinical methods, props and co-constructed aims and goals of practice to enable them to

flexibly meet the individuals' needs. In order to provide predictability and familiarity, the sessions need to be frequent, structured with a clear beginning, middle and end, less than one hour in length, and the duration of therapy needs to be long-term. However, none of these should be rigidly applied without considerations the individual's specific needs. Additionally, one-to-one work needs to be an option, as group work is not appropriate for every individual. This chapter will now evaluate the study with a discussion of its strengths and limitation.

8.2 Strengths

This research was built on a solid foundation of strengths that enabled it to thoroughly delve into and explain a phenomenon of how DMP practitioners work with autistic adults. These strengths included: utilisation of a CGT methodology, use of semi-structured interviews, a systematic review supporting the lack of literature in DMP, and the researcher's outsider position.

8.2.1 Utilisation of a CGT methodology

As a researcher with a background as a DMP practitioner, the CGT methodological approach brought in more depth to the data collection and analysis process.

Through reviewing the existing literature and bringing in my own experience and knowledge, it guided the interview process, which contributed to the rich descriptions that were grounded in the data. The CGT approach was a highly relevant framework for including the method of semi-structured interviews.

8.2.2 Use of semi-structured interviews

The semi-structured nature of the interviews allowed the practitioners voices to be heard. The aim for this research was to explore how the lived experience, beliefs and values inform the DMP practitioner's approach. The semi-structured nature of

these interviews allowed me as the interviewer to discuss any questions or responses in more depth with the practitioners to draw out context or further insights. The process of the semi-structured interviews was highly appropriate within a CGT methodology.

8.2.3 Systematic review supporting the lack of literature in DMP

The systematic review of the literature was a crucial undertaking of this study, as it provided understanding of the existing literature. Additionally, it confirmed that none of the existing studies look at how DMP is being practiced internationally or why it is being practiced in the form that exists. The systematic review not only highlighted that the existing research is purely about proving whether DMP is efficacious for autistic adults; it also provided a comparison for identifying differences between the international practice of DMP for autistic adults and the existing research.

8.2.4 Researcher's outsider position

The researcher's outsider position meant that the extensive knowledge and experience in the field of DMP with autistic adults was brought to the study. This was particularly beneficial in the construction of the research questions, the further exploration of answers within the semi-structured interviews and the coding and the analysis of the interview findings. Without the rich experience and knowledge of the researcher, an understanding of the importance of different aspects of the findings may have been missed.

8.3 Limitations

The limitations in this study included the researcher not being independent to the study, language barriers, outsider view of cultural impact, challenges of the COVID-

19 pandemic, practitioner responses, small scale study. These limitations will be evaluated in the next section of this chapter.

8.3.1 Researcher not being independent to the study

A strength of the study was to bring an outsider position to the study through bringing a wealth of knowledge and experience; however, a limitation could be the researcher 'ruling' the research agenda (Råheim et al., 2016). Whilst a wealth of experience of knowledge helps to identify relevant questions for the interviews and aspects of the findings, there is a foreseen risk that the knowledge and experience will blind the researcher to other insights outside of their experience. The emphasis of CGT on being thoroughly grounded in the data and the actioner of the researcher in conducting the transcripts themselves, immersed the researcher in the data and would have helped to talk to the data opposed to contaminating it.

8.3.2 Limited practitioner response

There was a scarcity of practitioners who met the minimum two-year experience level working with autistic adults. There were a number of practitioners who had under two years and many practitioners who responded to the recruitment call had experience of only working with children. This meant that there were many practitioners with experience of autism, although the inclusion criteria meant that they could not be included in this study. However, lowering the number of years' experience for the practitioner within the inclusion criteria would have meant gathering evidence based on a less thorough understanding of how to conduct DMP practice with autistic adults. Within the UK, ADMP UK base their criteria for joining the private practice register partly on a minimum of two years' post qualification experience. Therefore, two years can be seen as the point at which a DMP

practitioner has gained sufficient experience to be considered autonomous in their practice.

Allowing experience of practice of children who have autism within the inclusion criteria would have moved away from the focus of the study and would have reduced the credibility of the findings. It would have raised questions as to whether the practice with children could apply specifically to adults.

8.3.3 Small-scale study

The small-scale study can be a major limitation in that it can over emphasise the importance of findings. However, since this study seeks to understand how DMP practitioners work with autistic adults; the findings are experience-based and there is no right or wrong answer from the practitioner's response or the researcher's interpretation. An increased sample size may have introduced new practices; however, data saturation was met with the 19 practitioners. Lincoln and Guba (1985) suggest that sample size is guided by a criterion of 'informational redundancy' so recruitment stops when no new information is found in subsequent interviews.. The method utilised within the study included a check on new concepts that emerged between interviews. The point at which new concepts had stopped emerging was taken as the point as data saturation being reached.

Similarly, Malterud, Siersma and Guassora (2015) used the concept of 'information power', which purports that the level of information power within the sample dictates the sample size as the more information power in a sample, the less participants are needed. The information power was enhanced within the study through the inclusion criteria limiting DMP practitioners to those with at least two years' experience specifically with autistic adults; the researcher's extensive knowledge and

experience; the use of semi-structured interviews that allowed the researcher to explore answers more thoroughly; the CGT methodology immersing the researcher in the data during the analysis process; and the existing literature from the systematic review. Therefore, the researcher was confident that data saturation was reached within the definitions of both Lincoln and Guba (1985) and Malterud, Siersma and Guassora (2015).

8.3.4 Language barriers

There may have been missed opportunities of experienced DMP practitioners that were not included in the recruitment process due to not being an English speaker. A recruitment call was sent to the European Association of Dance Movement Therapy (EADMT); however, there were many countries that were affiliated with the EADMT who did not have an English language option on their webpage. Therefore, there may have been a wider representation of countries if the English language had of been an option.

The interviews included DMP practitioners from ten different countries, and although the practitioners were able to speak the English language, on occasions, practitioners struggled to articulate their responses or translate their thinking into the English language. The DMP practitioners may have provided more depth if a translator had been present and opened up other potential practitioner's for this study. Within the timeframe to collect data and this study being non-funded, there was a limitation to the DMP practitioners who were able to participate. It would have been unfeasible to provide translation. However, even with challenges around language translation, as seen in the strengths section above, there were many rich descriptions Of DMP practice. An additional impact of the language limitation was

that the systematic review inclusion criteria limited studies to those published in the English language. It is not known if there were other studies published in other languages that add to the existing literature.

8.3.5 Outsider view of cultural impact

There was some impact identified within the findings of culture on DMP practice for autistic adults. However, the researcher is conscious that they approach this aspect of the data through the lens of their own culture and their understanding of this cultural impact may be limited. The length of the interviews meant that further exploration on how culture differences impacted on DMP practice was limited. This study was not an ethnographic study, although it does raise the opportunity for future ethnographic studies to understand how culture may shape the practice of DMP with autistic adults. An ethnographic study would have a primary focus on the culture and would require a depth of investigation that this study was not able to explore. Therefore, this study could not fully present the cultural impacts that may affect the practice of DMP with autistic adults.

8.3.6 Challenges of the COVID-19 pandemic

The first tranche of interviews was collected between October 2015 and December 2015. Therefore, it was not affected by the COVID-19 pandemic. The second tranche of interviews was conducted between January 2020 and June 2020. The second tranche was during the COVID-19 pandemic, and the impact may have included commitment to participate and increased sickness. There may have been an impact on practitioner's well-being, particularly if they themselves had been unwell with COVID-19 or if their family members were unwell. Nevertheless, as seen in the previous section, data saturation was met.

8.4 Original contribution to knowledge

This study was derived from the hypothesis that DMP studies are extremely limited in relation to autistic adults and my drive as a researcher-practitioner to better understand this area. Three areas will now be presented that highlight my original contribution to knowledge: the application of a CGT methodology to generate a new evidenced-based, theory-informed model of how DMP practitioners work with autistic adults, and the disparities between the DMP practiced in the available research and the DMP being practiced internationally.

8.4.1 Application of a CGT methodology

Utilising a CGT methodology supported the research methodology and methods to review previous literature and allow this to shape the interview questions to gain greater depth of understanding. The semi-structured nature gave scope for me to further explore the response to the interview questions. Additionally, it gave a space for the practitioners to bring in their own lived experiences, beliefs and values outside of the initial prepared interview questions. The process was co-constructed and collegial, rejecting a hierarchical order of researcher-practitioner. During the interview process, practitioners were able to further explore and evaluate their approach to practice within the semi-structured component of the interview questions.

8.4.2 Disparities between available DMP research and DMP practice internationally

The significant findings in the interviews highlighted that there are disparities between what is being practiced in DMP research and the DMP that is being practiced internationally. This study highlighted important areas that should be considered when working with autistic adults. These include sensory considerations,

the adaptability and flexibility of practice, a multimodal theoretical approach with a focus on person-centred and person-first language, and a focus on the individual who is being researched and their individual specific needs. The aforementioned significant findings are not commonly included in the existing DMP literature and are highly important aspects of a DMP intervention when working with an adult who has autism.

8.5 Recommendations for research

The study has led to three key recommendations for research which will be presented in this section. Due to the disparities identified between the existing literature and the evidenced-based, theory-informed model of DMP practice for autistic adults, three key recommendations for research are outlined.

Recommendation 1: There is a need for future efficacy studies to test the evidenced-based, theory-informed model of how DMP practitioners work with autistic adults developed from the findings of this study.

This theory-informed model includes some core elements that either do not appear or are underrepresented in the existing DMP literature for autistic adults. Through their inclusion of the evidenced-based, theory-informed model in future efficacy studies, the current international practice of DMP for autistic adults can be tested for efficacy. Additionally, the credibility of future efficacy studies will be enhanced from the inclusion of evidenced-based practice.

Recommendation 2: Further systematic reviews should be conducted for how DMP is being practiced for other client populations.

The systematic review in this study revealed that there was a lack of knowledge regarding how DMP was being practiced with how DMP practitioners worked with autistic adults. This gap in the knowledge has now been filled; however, there may be other client populations where it is still unknown how DMP is being practiced.

Therefore, systematic reviews need to be conducted for practice of DMP with other population types to identify any existing gaps. Further studies need to be run to fill these gaps. This may also apply to other arts therapies modalities.

Recommendation 3: To further explore the influence of culture and how DMP practitioners work, future studies should be conducted in DMP practice with autistic adults

As previously mentioned in the limitations, this was not an ethnographic study, and there remains a gap in the knowledge and understanding of how culture impacts on practice in DMP with autistic adults. Future ethnographic studies could be conducted to bridge this gap.

8.6 Recommendations for practice

This study created guiding principles for DMP practice with autistic adults. This leads to two recommendations for practice that will now be presented:

Recommendation 1: The guiding principles of DMP practice presented in this thesis should be piloted and further developed with input from stakeholders

The guiding principles of DMP practice in this study result from the evidenced-based, theory-informed model of DMP practice for autistic adults. The draft guidelines will inform DMP practitioners of the considerations that they need to take when practicing with autistic adults. Piloting these guiding principles would enable them to be tested for efficacy and developed for incorporation into clinical practice.

Recommendation 2: Following an appropriate pilot and evaluation phase, the guidelines can be incorporated into DMP training and be offered as Career Professional Development for DMP practitioners who are working with autistic adults.

Once piloted and developed, the draft guidelines presented in this study will form a solid foundation for DMP practice with autistic adults. In order for these to be widely adopted, they need to be incorporated into DMP training programmes for trainee DMP practitioner's, and offered as Career Professional Development for existing qualified DMP practitioners.

8.7 Concluding thoughts

The utilisation of a CGT methodology supported the role of researcher-practitioner for this study through enabling immersion in the data and co-constructing meaning. The co-construction of making meaning was achieved through dialoguing with the voices of the practitioners and making links to my own experience and knowledge of practice. The ontological and epistemological positions adopted in this research impacted on the study design. New meaning from the gathered data and subsequent analysis of autism and DMP supported the development of guiding

principles of DMP practice with autistic adults. The model of DMP practice has identified that the person is at the core of DMP intervention and may be changeable to accommodate individual specific needs. The capacity to support practice and can become useful resources for DMP practitioners when working with autistic adults, an often under-served population. To conclude this thesis, one practitioner perfectly summed up the need for this and further research in this area:

“Your research and how it might potentially change the thinking about what and how services are provided for people on the spectrum. Particularly for adults who seem to be completely neglected in the world”. (Practitioner 5; female; UK).

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Appendix 1: Ethical Consent

From: Kevern Verney

Sent: 30 July 2015 17:00

Subject: Notification of Ethical Approval

Dear Carly

I am pleased to confirm that the above project has been granted ethical approval by the Faculty of Arts and Sciences Research Ethics Committee for:

An exploration into the practice of Dance Movement Psychotherapy with adults who have Autism.

Approval is subject to the following conditions:

1. That you secure e-mails to confirm their consent for the practitioners involved in Skype or telephone interviews.
2. The project information sheet/consent form includes a timescale for the project.
3. Ethical approval only relates to phase one of the project.
4. Ethical approval covers only the original study for which it is sought. If the study is extended, changed, and/or further data is needed, the Committee Secretary, Ruth Carr, must be contacted for advice as to whether additional ethical approval is required.

Good luck with your research.

Kevern Verney

Associate Dean

Faculty of Arts and Sciences (FAS) Chair

Second ethical approval confirmation

Hi Carly

Thanks for the update. Given that the methodology remains the same I am happy to confirm by chair's action an extension of ethical approval to 31 March 2021 and also ethical approval for the number of participants to be increased from 12 to 30.

Best wishes

Kevern

Appendix 2: Information for interviewee

An exploration into the practice of Dance Movement Psychotherapy with adults who have Autism.

Dear practitioner,

My name is Carly Marchant and I am currently undertaking my PhD based on Dance Movement Psychotherapy as an intervention for adults who have Autism. Within this study I will explore how Dance Movement Psychotherapy/Therapy (DMP/DMT) practitioners work with adults who have Autism. Following semi-structured interviews with DMP/DMT practitioners, I will be compiling a DMP/DMT intervention manual for adults who have Autism.

The study will focus on the following questions:

1. How do DMP/DMT practitioners work with adults who have Autism, as found in the available research evidence?
2. How do DMP/DMT practitioners work with adults who have Autism internationally as reported by them?

In order for me to address research question one for the study, I am undertaking semi-structured interviews with DMP/DMT practitioners who work with adults who have Autism. A minimum of two years' experience of conducting DMP/DMT sessions with adults who have Autism is required to participate in this study. Additionally, a full professional membership with a DMP/DMT association is necessary. I would be grateful if you would consider taking part as one of the interviewees for this study discussing your experience as a DMP/DMT practitioner working with adults who have Autism.

The interview will take up to one hour, at a time of your convenience, and on a voluntary basis. It will be via Skype, Zoom, Google Hangouts or as a telephone interview. In order to give clarity to the conversation, and in order to analyse the material you provide, the interview will be audio recorded and transcribed.

Anonymity will be assured with the information shared from the interview by inviting you to use a pseudonym for you and for the individuals discussed, so that they are not identifiable. Transcripts of the interview will be available on request, and will be provided within two weeks of the request, and you have the right to retract any information shared during the interview up to four weeks after the interview. You also have the right to withdraw entirely from participating in the study, and this can be requested via e-mail before or up to four weeks after the interview. I will not ask to share any confidential material such as the name of the setting or names of patients/clients, although it may be asked what type of industry you work in such as: NHS or other healthcare service, Social Services, residential settings and so forth.

It is likely that the findings from the study will become part of future publications such as books, journal articles and conference papers. However, all of the information taken from the interviews to support findings of research question one and the systematic review to support research question two will be anonymised and not identifiable. The data collected from the interviews will be stored and encrypted with password protection on a USB flash drive and kept in a locked filing cabinet. After the research has been completed the data will be erased from the USB flash drive and any transcripts written up from the interviews will be shredded. The full study is due to complete by March 2021.

Please do not hesitate to contact me or my Academic Supervisor should you have any questions.

Appendix 3: Interview consent form

As a Dance Movement Psychotherapist, I am continually developing my practice and as such, I am conducting my PhD research study based on an exploration into the practice of Dance Movement Psychotherapy with adults who have Autism.

I would like to ask for your consent to participate on a voluntary basis in a semi-structured interview, which will take no longer than one hour at your convenience. This is to consider your practice as a Dance Movement Psychotherapy/Therapy practitioner working with adults who have Autism. The interviews will be audio recorded and transcribed to enable me to analyse the data collected. All material you provide will be anonymised and not be identifiable at any point. Please note that you have the right to withdraw your consent at any point during the interview and up to a month after the interview is conducted. This can be done via e-mail.

To give consent for the following components of conducting the interview for this research, please complete the statement below:

I.....(**Enter Name**) am willing to take part in a semi-structured interview on the way I work through DMP/DMT with adults who have Autism for a PhD research study with Carly Marchant (DMP practitioner). I understand that this will include the following:

- Carly Marchant will conduct a semi-structured interview taking no longer than one hour in duration, which will be audio recorded and transcribed.
- I understand that transcripts of the interview can be requested by me after two weeks from the interview.
- I understand that I have the right to retract any information or withdraw the answers to the interview up to four weeks post interview. After this time, I will not be able to retract the information given.
- Anonymity will be secured at all times, including transcripts from the interviews, although content of information from the interviews will be used as evidence for identifying ways in which DMP/DMT practitioners work with adults who have Autism. At the beginning of the interview, it will be invited that the therapist uses a pseudonym and the names of individuals, name of setting will not be asked by the interviewer so that all information disclosed will not be identifiable.
- The data collected from the interview will be stored and encrypted with password protection on a USB flash drive and any written transcripts will be stored in a locked filing cabinet. After the research is complete, the data will be deleted from the USB flash drive and the transcripts shredded.
- The research study is due to be completed by March 2021.
- Parts/all of the findings from this research study are likely to be published in books, journal articles and conference papers.

If you have any further questions, please do not hesitate to contact me either via e-mail address below or contact telephone number.