European Early Childhood Education Research Journal

ISSN: 1350-293X (Print) 1752-1807 (Online) Journal homepage: https://www.tandfonline.com/loi/recr20

Patterns and attributes in vulnerable children's messy play

Sue Gascoyne

To cite this article: Sue Gascoyne (2017) Patterns and attributes in vulnerable children's messy play, European Early Childhood Education Research Journal, 25:2, 272-291, DOI: 10.1080/1350293X.2017.1288019

To link to this article: https://doi.org/10.1080/1350293X.2017.1288019

Published online: 28 Feb 2017.

Submit your article to this journal

Article views: 1490

View Crossmark data

Citing articles: 1 View citing articles

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=recr20

EUROPEAN EARLY CHILDHOOD EDUCATION RESEARCH JOURNAL, 2017
VOL. 25, NO. 2, 272–291
http://dx.doi.org/10.1080/1350293X.2017.1288019

Patterns and attributes in vulnerable children's messy play

Sue Gascoyne

Play to Z Ltd, Colchester, UK

ABSTRACT
'Messy play' is often viewed as a purely ludic play activity in early childhood settings, however, some professionals in therapeutic contexts have understood it as potentially significant for supporting young children who have experienced trauma. This article reports on a study that explored how young children who have experienced trauma may use their engagements in messy play to regulate and express their emotions. Children's uses of messy play resources in a therapeutic environment were observed. The resources included sand, water, paint, playdough, gloop, gellybaff, clay, shredded paper and shaving foam. When the children used these resources, patterns, special attributes and transformative qualities in their interactions with them were captured. This revealed that the children used messy play as a conduit for communication. Findings from the study were identified as potentially useful for practitioners working in mainstream early childhood settings.

KEYWORDS
messy play; therapeutic play; transformation; emotional; trauma

'Messy play' is often associated with young children and considered an essentially ludic play activity (Nottinghamshire Children and Families Partnership 2016; Sonnier 2016), however, when used in a therapeutic context by professionals who understand its potential significance, its transformative qualities appear to support children's need to express and bring order to chaos, exert control and act as a conduit for communication (Case and Dalley 1990; West 1992). This article reports findings from a study conducted over a two-year period in the context of play therapy in the UK with 13 young children aged four to seven years. The children had all been diagnosed with emotional and behavioural problems and were attending a therapeutic play intervention. The aim of the study was to explore ways that young children may use their engagements in messy play to express and regulate their emotions. The focus of this article is on two key themes that emerged from the data:

(1) The role of affordance in shaping the benefits and use of messy play resources.
(2) The significance of children's transformation of mess for communicating their emotions

CONTACT Sue Gascoyne sue@playtoz.co.uk
© 2017 EECERA

The study was developed following observations of children's uses of messy play during play therapy sessions. Those observations suggested that as children began to play: (1) they developed strategies to control and harness the messiness of their play materials, and that, contemporaneously; and (2) their emotional and behavioural states also seemed to improve. The study explored these two observed phenomena systematically to identify if any links between them could be established.

Background to the study

Messy play is part of children's 'need for close contact with different substances, for creative experiments that involve learning through chaos' (Szekely 2015, 42). According to Duffy (2007), it involves:

- 'children using all their senses in the process of exploration, especially the sense of touch;
- offering children plenty of opportunity to mould and manipulate materials;
- not having a focus on making or producing something' (1).

In the context of this article, messy play includes specific resources provided for children in a therapeutic environment, including sand, water, paint, playdough, gloop, 'gellybaff', clay, shredded paper and shaving foam (Case and Dalley 1990; Hastings 2013).

Uses of play therapy

Play therapy has been used successfully to support children who have become marginalised by war and natural disasters (Baggerly and Green, cited in Webb 2015, 319; Landreth 2012, 18; Vanfleet and Mochi 2015). However, within the UK, disadvantage and marginalisation from education often feature in the lives of children who have experienced other types of trauma (Landreth 2012, 86; West 1992). These include children of solvent abusers, child witnesses of domestic violence, children with disabilities and young carers, as well as children who constantly move between houses and carers because of marriage breakdown, and those who frequently experience neglect and trauma due to 'dysfunctional' attachment (Webb 2015; Malekpour 2007; West 1992). Some of these children are united in their struggle to have their basic human needs and well-being met (Webb 2015) and can find it difficult to adjust to learning in mainstream educational settings (Landreth 2012, 86). Messy play often features in early childhood provision (Duffy 2007), but there has been limited research into its theoretical underpinning. To date research appears to have primarily adopted a sensory, cognitive or therapeutic focus.

Sensory and cognitive focus

Sensory stimulation is a key part of how young children learn about themselves and the world around them: '… the sensory experiences of early childhood (that) determine the foundational organisation and capabilities of the brain' (Perry, Hogan, and Marlin 2000). Sensory stimulation, supported by sensory-rich messy play resources such as gloop, playdough or even infants' food, are vital for cognitive development and for supporting

children's understanding of the world and their interactions with it (Perry, Samuelson, and Burdinie 2013). Duffy (2007) identifies 'a strong link between the process involved in messy play and Piaget's concept of cognitive disequilibrium … when thinking has to change to incorporate new information' (2). It may be argued, therefore, that sensory stimulation offers a rich environment for learning in early childhood.

Therapeutic focus

Sensory engagements are also regarded as a useful therapeutic tool. Hastings' 'Messiness Scale' (2013) provides a measure of the spatial spread of mess in a therapy room, and is an attempt to quantify mess, and in doing so, attribute value to it. At the end of each Play Therapy session the therapist applies a score on a scale from 0 for 'no messy play', through 4 for 'small areas for contained mess' to 10 the 'whole room used for messy play' (48). This simple indicator helps to quantify a qualitative experience.

Types of mess and affordance

Gburczyk (2012) suggests a typology of messy play resources (Appendix A), classifying these in terms of whether wet (e.g. wet sand and gloop), sticky (e.g. clay), dry (e.g. sand and wood shavings), or in between (e.g. playdough). Not only can this distinction support adults to recognise and address children's differing needs and aversions and to source appropriate messy play resources, but these qualities may shape adults' understanding of the affordances and reflective qualities inherent in specific resources. Gibson (1979) introduced the idea of 'affordance', essentially what an environment or resource can 'provide or offer'. The open-endedness of messy play materials and wide variation in the way they respond to children's touch or appeal to children means they offer high play and learning affordance as they have the potential to be used in a multitude of ways. West (1992) and Kalu (2002) note how children manipulate resources such as clay and paint to vent anger. Hastings (2012) work with looked-after young children (LAYC) suggests a potential relationship between the wetness of children's messy play and their level of disadvantage, with children with the highest Total Difficulties scores (Goodman, Renfrew, and Mullick 2000) engaging in wetter, messier play than those with lower Strengths and Difficulties Questionnaire (SDQ) scores. Gascoyne (2015a) suggests this area is also worthy of further investigation as resources like dry sand, seemingly good when seeking to self-calm, may be less effective than wet sand or paint when a child is looking to express anger (Figure 1).

Play therapy enables the child to undergo a 'therapeutic process of moving toward self-awareness' (Landreth 2012, 19). Mirroring and reflecting this transformation are key techniques in non-directive Play Therapy (Axline, 1947, 73–74; Landreth 2012), essential for providing a strong therapeutic alliance and safe environment for the child to develop self-supporting strategies and bring about positive change. Given the importance of mirroring and reflection for gaining personal insight, it is suggested that the qualities (i,e. colour, wetness, opacity or resistivity) and affordances of different messy play resources may have the propensity to mirror the child's state and perform a reflective role.

West (1992) describes the handling of open-ended resources that involve physical manipulation as 'a mirror of the child's inner world' (65). This suggests a synchronicity

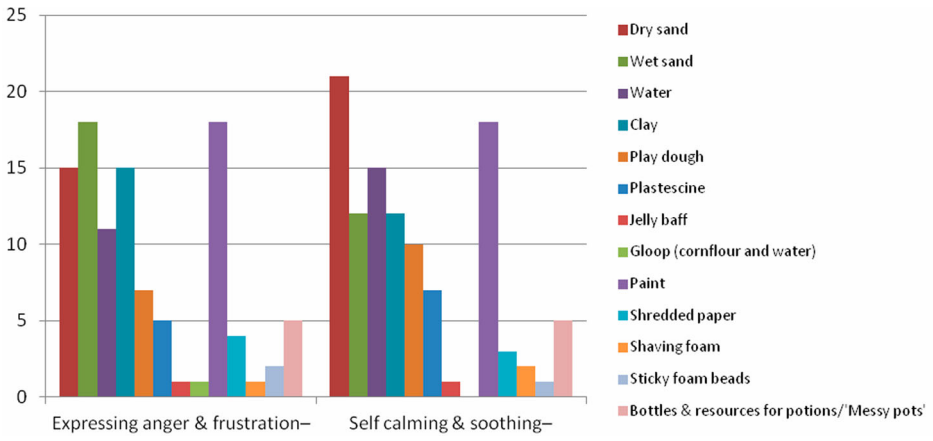

Figure 1. Resource affordance.
Source: Sue Gascoyne.

not just between the qualities of messy play resources and the child's emotional process, but also the way that they are used potentially reflects and communicates to a trusted adult what their world looks and feels like. This phenomenon supports Kaplin and Kaplin's (1989) notion of 'Compatability' of resources, in terms of their wetness, opacity or resistive qualities.

Kaplin and Kaplin (1989) identify four restorative and calming qualities of the natural environment: Fascination, Being Away, Extent and Compatibility, which provide neural inhibitory rest for the brain and a buffer against stress. Kaplin and Kaplin (1989; cited in Capaldi et al. 2015) observe that 'Natural environments seem particularly restorative: they provide an opportunity to get away, contain fascinating rich stimuli that effortlessly engage our involuntary attention, and allow us to act without the need to constantly monitor our behaviour' (3).

The benefits of messy play

Natural environments are well-documented for their emotional and restorative qualities and capacity to act as buffers against the stresses and problems of life (Capaldi et al. 2015; Kaplin and Kaplin 1989; Tomkins and Tunnicliffe 2007). Although the mechanism underlying the buffering effect of nature is not fully understood, Capaldi et al. (2015) suggest that environments which provide a source of meaning, sense of increased autonomy, experience of vitality and feelings of awe and inspiration, boost well-being. It is noteworthy that several of these features may also be apparent in messy play, as children investigate and discover about the world and their role in it (meaning); bring about change (autonomy); reconnect with their more child-like sensory explorations (vitality); and experience awe as substances change and behave in unexpected ways (awe and inspiration) (5–6). Given these similarities it is suggested that contact with messy play resources also has the propensity to act as a buffer and contributor to well-being.

Hastings' work with LAYC explored the potential relationship between the child's mood and messy play resource use (2013). She identified a relationship between the 'wetness' and stickiness of resources and the degree of anger and emotional issues being

processed by the child. The links between resource affordance, use and emotion are explored in Appendix A. Hastings (2013, 92) identified congruence between LAYCs' use of therapeutic messy play and an increase in their need for emotional containment. She noted that the utilisation of messy play often occurred when clients were working through strong emotions or 'where shifts in their views' were taking place (106). Clients' exploration of their own mess seems to suggest they 'experience emotional containment through their work which can enable the[m] to move on through their therapeutic journey' (Hastings 2013, 109). Apart from Hastings (2013), there is a paucity of literature on links between messy play and enhanced outcomes for vulnerable children; Hastings' findings (2013) suggest that there may be value in conducting further research to explore such links. This article reports on a study that contributes further evidence regarding ways that messy play may support young children who have experienced trauma; additionally, it considers potential applications of that evidence to support the learning and development of young children in mainstream settings.

Transformation of mess

Extant literature suggests that transformations in messy play typically fall into two distinct areas: (1) changes in how children interact with, respond to and use messy materials (Hedges and Jones 2012; James 1997; Perry et al. 2013); and (2) changes in the appearance or properties of resources (Case and Dalley 1990; Hastings 2013; Sagar 1990).

Changes in how children interact with, respond to, and use messy materials

Resources 'that are plastic in nature and can be torn apart, restructured, destroyed, and recreated without causing guilt or worry' allow the natural expression of feelings (James 1997, 81) but also, as has already been stated, appeal to children generally because of their propensity for scientific experimentation and numerous opportunities for compelling counterfactual thinking which help shape children's evolving working theories (Hedges and Jones 2012). The exploration of change is a source of fascination and powerful driver for learning for children, especially if they themselves are the agents of change. Messy play resources are ideal for exploring change and captivating interest, something which Perry et al. (2013) put to the test by exposing 16-month-old babies to 14 non-solids, including apple sauce, pudding and soup to assist their learning of the words for non-solids.

Changes in the appearance or properties of resources.

Messy play resources lend themselves to having their texture, consistency and colour changed. Hastings (2013); Case and Dalley (1990); and Sagar (1990) reflected upon how many of their clients chose to mix dark colours and (Sagar 1990, 110) identified a trend, also noted by Hastings (2013) for children's mess to develop into cleaner, paler or sparklier forms.

Attitudes to mess

A survey of 2000 parents and children aged seven to 11 years, identified fear of mess and lack of time to clean up as key factors limiting messy play (Morton 2014). A conclusion that was supported in a survey of 24 Play Therapists (Gascoyne 2015a), whose anxiety about mess was a barrier to children being offered messy play in therapy. An associated

finding from Morton (2014) was that 33% of children say they do not like dirt or mess, identified as a learned behaviour due to lack of exposure to mess and anxiety over cleaning. These findings have important implications for mainstream educational settings looking to maintain or increase children's access to sensorially-stimulating resources through messy play provision.

Study context

Play therapy is 'a dynamic approach to counselling children' (Landreth 2012, xiii) which involves the therapist providing a safe environment; consistent timings, boundaries and rules; and a 'toolkit' of play resources that the child can freely choose if, what and how to play with. Over a two-year period clinical observations took place with children aged four to seven years in one UK Infant School and one UK Primary School. Each session lasted 45 minutes, during which time a core toolkit of toys and play resources were available for the child to choose. From time to time, the author supplemented this toolkit in response to the child's emerging interests. For example, one child repeatedly expressed her need to create 'sticky' substances, so additional resources such as glue and cornflour (for gloop) were made available.

Methodology

For this study, mixed methods were adopted, providing qualitative and quantitative data to reveal a systematic, multifaceted perspective on children's strategies for transforming and controlling mess and charting improvements in emotional well-being. Chazan (2002, cited in Hastings 2013, 49) urges the use of 'measurable units' to describe the child's 'subjective experience' and elevate client observations to tangible patterns. A practitioner questionnaire, Messiness Scale (Hastings 2013) and Goodman's SDQ (2000), provided a quantitative dimension to complement the qualitative analysis.

Methods and participants

Five methods were adopted for the study: (1) A questionnaire was completed by 24 qualified and trainee Play Therapists (extract in Figure 1). Secondary data analysis and clinical casework shaped the survey questions, for example one question asked therapists to select any or all benefits that they observed in client work with messy play. Eleven potential benefits of messy play, together with an open 'other' field were offered and the results informed the identification of six attributes of messy play (Gascoyne 2015a); (2) Clinical observations captured resource use and children's energy and emotion based on sample of 13 children aged four to seven years. (Appendix A); (3) Analysis of 15 therapy sessions over a nine-month period was completed using Hasting's Messiness Scale (2013) with Child 2, a six- to seven-year-old boy with a disability and constant changes in his family home; this analysis investigated links between the spread of mess and therapist's perception of mess; (4) A set of visual records was captured of Child 1, a four- to five-year-old girl with a life-limiting disability and estranged father, and Child 2 (as above) over an eight- and nine-month period respectively (Figure 2); and (5) Finally, multiple case studies of messy play of a sample of 13 clients aged between four and seven years

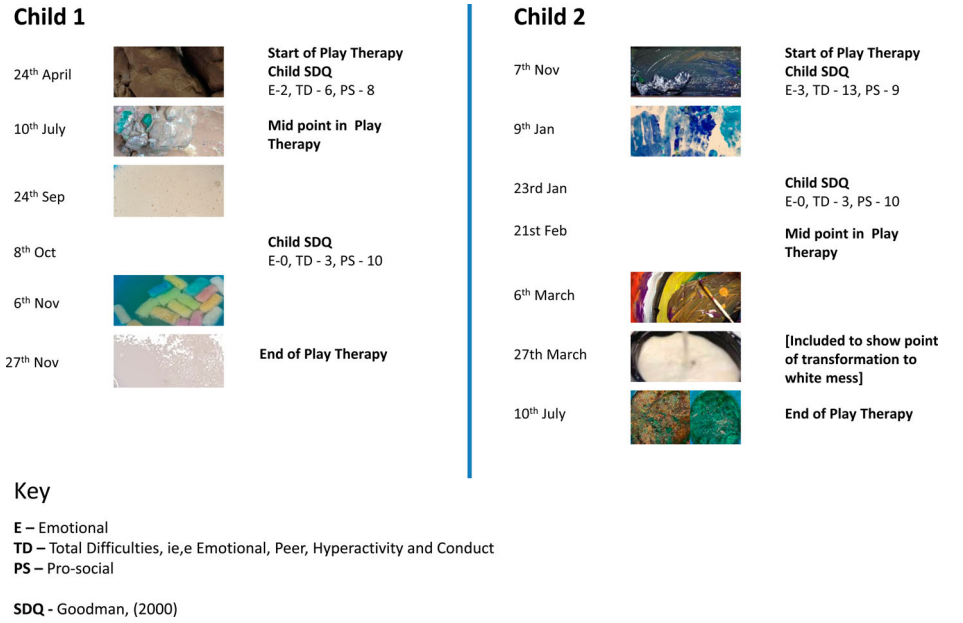

Figure 2. Messy play colour transformation.
Source: Sue Gascoyne.

were compiled to investigate potential synchronicity between resource affordance and each child's emotions and needs.

Limitations of research

This study used selective 'purposive sampling' (Robson 2011) as the case studies and retrospective analyses were selected on the grounds of meeting 'shared criteria' which fitted the researcher's bias, so it is not possible to draw firm conclusions, but rather highlight potential patterns which warrant further investigation. Furthermore, the small research sample, gaps in quantitative SDQ data (Goodman et al. 2000), validity, reliability, bias, trustworthiness, and potential for researcher influence, are recognised. The rigour of the questionnaire is limited by its small-scale, self-selecting nature and time and length constraints. Its intention was to test the hypothesis that several therapeutic attributes can be identified for messy play and this introduces researcher bias as well as scope for participant misinterpretation or direction.

Ethical considerations

Consideration was given to the six ethical principles of fidelity, autonomy, beneficence, non-maleficence, justice and self-respect which underlie play therapy in the UK where the study was conducted (Play Therapy UK 2016). During the clinical work and research process, the therapist/researcher was protected for Public Liability and Professional Indemnity and held a full DBS enhanced disclosure as well as membership of Play Therapy UK. Given the potential for a conflict of interest between the dual roles of researcher and

therapist and an associated change in power relations between the therapist and child, it was vital to keep the following Axline principles (1947) to the fore:

(1) Accepting child as is
(2) Establishes feeling of permission
(3) Child's responsibility to make choices
(4) Child leads – therapist follows
(5) Therapist does not hurry.

Prior to commencing play therapy, parental/carer and school permissions were secured for working with each child, and recording and using data for research purposes. All children consented to take part in sessions and could (and did on occasions) exercise their choice over whether to attend individual therapy sessions. Assurances were provided that the identity of children would remain confidential. The agreed intention of sharing data was to help distil good practice and support practitioner training. As a therapist first and foremost, the rights of the child were respected and every decision was taken in the best interests of the client and their family, rather than the research. Two obvious examples of this were whether children's evolving creations were photographed and the limited SDQ's for Child 1 and 2, which if available on a more frequent basis would have significantly enhanced the rigour of the research findings but unacceptably undermined the therapeutic process.

Presentation of findings

Findings are presented in four sections: (1) analysis of therapeutic practitioner's questionnaire; (2) analysis of resource use in clinical observations; (3) analysis of links between a therapist's actual and perceived spread of mess; and (4) analysis of the colour of two client's mess and correlation with SDQ data to identify potential patterns or indicators of deeper processing and transformation.

Analysis of therapeutic practitioner's questionnaire (extract in Figure 1)

With the ludic value of messy play established, secondary data analysis, clinical casework and practitioner's questionnaire identified five further benefits of messy play (Gascoyne 2015b) apparent in children's therapeutic messy play:

(1) A restorative and calming emotional buffer
(2) A sensorial, experiential, and regressive experience
(3) A tool for confidence, control, mastery and transformation
(4) A Tool for communication and self-expression
(5) A tool for developing containment and attachment
(6) An enjoyable and enriching resource

The links between these attributes and Capaldi et al.'s (2015b) criteria for positive natural environments (meaning, autonomy, vitality and awe) are apparent. Notwithstanding research limitations this supports the existence of wider benefits of therapeutic messy play, beyond ludic fun. Two of these attributes – (3) autonomy and (4) communication – warrant further investigation within this article.

Analysis of resource use in clinical observations

Analysis of the messy play work of 13 clients (Gascoyne 2015b) identified patterns in messy resource use and a variety of levels at which children interact with messy play. Appendix A establishes how different types of resources elicited different genres of use and associated emotional energies. Consideration of the typology of resources in relation to clients' energy level and mood tentatively supports the association of drier resources, with calmer energy and wetter, stickier resources, with more energetic actions.

Table 1 demonstrates that far from being one dimensional, clinical observations (Case and Dalley 1990; Gascoyne 2015b; Hastings 2013) appear to suggest several levels of messy play interactions some or all of which may be apparent in children's therapeutic play or free play. The first of these non-linear 'stages' in a 'Continuum of messy play interactions' relates to the process of exploring and experimenting with mess, as the babies in Perry's experiment illustrate (2013). Once children have played with their mess in an unboundaried way they may then begin to contain their mess, clear up or even harness it as they turn their mess into a positive. The containment and clearing up, or even prevention of mess by for example wearing aprons or covering a table can, if preceding episodes of messy play were uncontained, represent positive indicators of a child beginning to take control of their mess. The final stage of discarding mess occurs when the child no longer needs it.

Although distinctions must be made between therapeutic and mainstream early years' practice, it can be argued that these findings have potentially interesting ramifications for early years practice. If children do not have opportunities to return to their mess, harness it, clean it up or discard it themselves, but mess is instead 'magicked away' by adults, young children are denied opportunities for scientific learning: they experience different engagements with mess as discreet and disparate activities rather than being able to link those engagements to elucidate the underlying science (Gascoyne 2012; Tunnicliffe 2016). For example, a child's understanding and ownership of change will be significantly enhanced

Table 1. Messy play interactions.

Stage of Mess	Examples
Expressing, Exploring and Experimenting with Mess	Child creates handprints, smears, paints themself, colour mixes, buries their hands or toys or hides in messy play resources. The emphasis starts sensorial and whole bodied (Case and Dalley 1990; Dalley 2008 Jennings 2014) evolving into 'more ordered and controlled projective activity' (Jennings 2014, 85). Bodily products (vomit, urine or faeces) and association of mess with naughtiness appear to enhance the experience.
Containing Mess	Messy play often overflows the boundaries of containers posing the question is there a continuum in the containment of messy play? Unboundaried play may reflect the extent of the child's trauma, a need to rebel or be unboundaried, or difficulties due to age or fine motor skills. Contained play may emerge as they begin to feel a sense of containment.
Harnessing Mess	The emergence of 'harnessed mess' (Dalley 2008) – the creation of something positive from a child's mess like the child who floated a pirate boat on a flooded floor.
Saving Mess	Some children need the therapist to keep their mess, like used paper in a child's box (Figure 3) and the containers kept by LAYC's (Hastings 2013, 112). Some even create two separate messy worlds like the child with two boxes, one brown with poo-like lumps, another containing a rainbow.
Cleaning Mess	Cleaning off the mess can be a key part of the process of exerting agency and power and a calming self-care ritual with soap and water.
Discarding Mess	For many children, this is a liberating experience as they choose what and when to keep and discard.

Figure 3. 'This is what my world looks like.'
Source: Sue Gascoyne.

if she or he experiences the full cycle of engaging with gloop, from powder through to liquid, back to a solid and so on, rather than the gloop being cleared away after one experience of play.

Analysis of links between a therapist's actual and perceived spread of mess

The retrospective application of Hasting's Messiness Scale (2013) to 15 Play Therapy sessions identified anomalies between the actual spatial spread of mess and the therapist's anxiety and perception of chaos (Gascoyne 2015b). Gascoyne found that much of the client's messiest work took place at the end of sessions, when boundaries and endings came to the fore. It is suggested that not only did this rapid acceleration of mess impact upon the adult's sense of chaos versus control, but it also created anomalies between actual and perceived mess. This small-scale analysis highlights the potential importance of temporal changes in mess in determining the adult's sense of chaos versus control, both within and across clinical sessions, as well as the spatial dimensions of mess recorded by the Messiness Scale.

This area was explored further by Gascoyne (2015b) via a practitioner questionnaire with therapists. With the exception of paint and dry sand (which peaked in sessions 1–3), the use of messy play resources rose significantly in sessions 4–8, reflective perhaps of children's growing sense of safety to freely express themself as the therapeutic alliance developed. This finding may also conceal the growing confidence of the therapist in his or her own ability and the child's ability to contain the mess or emergence of regressive and sensory play, leading to the offer of messy resources increasing over time. Messiness tends to tail off after session 15, reflective perhaps of clients having worked through their most challenging issues and preparing to end therapy, a trend also supported by Hastings' work (2013) although both Hastings (2013) and Gascoyne (2015b) have identified exceptions, with some children engaging in messy play from their first session.

These anomalies between the spread of mess and therapist's anxiety level appear to indicate that the physical spread of mess is neither the only, nor main determinant of adult anxiety, but of a range of emotional and practical issues. This tentative finding has implications for the adult's perception of mess, and role therefore in supporting or inhibiting the wider application of messy play in mainstream educational and therapeutic environments.

Analysis of the colour of two clients' mess and correlation with SDQ data to identify potential patterns or indicators of deeper processing and transformation (Figure 2).

As the example of gloop amply demonstrates, messy play resources can vary significantly in their appearance and properties. Sagar identified a trend in therapeutic client's

work to create 'new cleaner kinds of mixture' (1990, 110) and this is explored further in Figure 2.

Discussion

In this section the study findings that highlighted the affordance of messy play resources and implications for change and communication are explored. These findings suggest that children who have experienced trauma may use their engagements with messy play resources to express and regulate their emotions.

Synergy between the physical properties, affordance of resources and child's play and emotions

As indicated, mirroring and reflecting a child's process are pre-requisites of a non-directive Play Therapist. Given the high level of affordance (Gibson 1979) of open-ended messy play materials which respond to touch or can be used in a multitude of ways, different physical properties, such as resistance, immersion, opacity, transparency, colour, stickiness or sparkliness, this study explored the capacity of such materials to synergise with a child's emotions and needs. Equally, given the importance of mirroring in the therapeutic relationship, the mirroring and reflective qualities of resources may also prove significant means for children to express and regulate their emotions.

West (1992) and Kalu (2002) linked children's manipulation of resources with venting anger and this study considered how different resources may either facilitate or hinder this link. Hasting's work with LAYC found a correlation between the child's emotional disturbance and wetness of their mess. Similarly, the analysis of 13 children's use of messy play resources (Appendix A) seems to support this trend as calmer emotions featured more with dry resources and more energised, angrier emotions, with wetter messy play (Gascoyne 2015b). For a child striving to express anger, the resistive qualities of a lump of clay or plasticine which can be pummelled, punched and wrung will require far more effort and therefore release more energy and frustration, than easily malleable, sweetly scented pastel coloured playdough. Clay is not only harder work and similar to faeces in appearance but also necessitates gradual transformation, something more suited to emotional reparation but at odds with modern day life.

Gloop (a mix of cornflour and water), common to many early years' settings, is an intriguing 'cognitively discombobulating' (Duffy 2007) substance which children often play with quietly, absorbed in its feel, surprised by its transformational qualities and empowered by their ability to change it. When a six-year-old in Play Therapy was offered gloop, he mixed it to a milky consistency, roughly forced it into a funnel and sloppily spilled the liquid as it repeatedly sloshed from one container to the other. This seemed to mirror his constant movement between parental homes (due to estranged parents with differing parenting styles), changes to boundaries and the inevitable spillage of emotions.

Another example of potential mirroring is provided by unstable gellybaff (a crystalised jelly-like substance) which echoed the instability of a six-year-old whose family structure was undergoing significant change. Although evidently repulsed by the feel of the gellybaff, repeating 'Yuck' and flicking the sticky mess from his fingers each time he touched it, he was unable to resist it, repeatedly returning to it throughout his sessions. The properties of the gellybaff seemed to match his need to experiment with adding and mixing things

together that don't normally belong, much like his own life. Unlike predictable sand, it was impossible to say which objects would sink, which would float, which would gradually submerge and those where pressure was needed to push them down. Having tried but rejected dry sand, which perhaps by comparison was far too stable and giving, this lack of rules and resulting chaos mirrored his life much more closely than sand or water alone, or together, could have done. Parallels can be seen with Kaplin and Kaplin's qualities of Compatibility and Extent (1989), as some children spend entire sessions exploring, experimenting with and representing their lives with a resource, whilst other resources offer little appeal.

With a bias highlighted towards offering sand in Play Therapist's toolkit (Gascoyne 2015a), this may reflect therapists' reticence to offer messier forms of play or a lack of appreciation of the differing qualities and affordances of messy resources. Similarly, Hutt et al. (1989) identified an assumption among early years practitioners that sand should be included in the main areas of provision for its well-being and learning benefits, a conclusion challenged by the finding that unless offered with other resources which increase its play and learning value, dry sand gives rise to a 'restricted stereotype' of hand movements and actions (1989). Although clearly outside the remit of this article, this highlights the importance of early years and therapeutic practitioners making informed decisions about the resources they offer to children and why.

Attitudes to mess

Mess and mood have been linked in the literature (Gascoyne 2015b; Morton (2014)). Further findings that link mood and mess emerged in analysis of 15 child therapy sessions, this time with a focus on the impact of the therapist's mood on their perception of mess (Gascoyne 2015b).

> I started the 10 second countdown and Child 2 plunged tissue into the water pot so water gushed out. He washed his arms then sprayed water over the table, ripped up his artwork and put more paint on himself.

As this extract demonstrates, temporal factors as well as the author's own emotional state, determined her perception of mess. In this instance a sudden escalation of mess at the end of the session resulted in the therapist experiencing feelings of 'Being overwhelmed.' 'Total chaos with just five minutes to prepare for next client.' 'Felt that I'd failed' and a higher scoring of the perceived spread of mess (10) than its actual spread (7). Conversely, the flooding of a table and floor by the same client in a later session, generated feelings of 'awe, 'relaxed calm' and 'reinvigoration' in the therapist. Although the actual spread of mess scored 9 on Hasting's Messiness scale (2013), the therapist's score at the time was only 6. The author recognises the potential for transference of the therapist's anxiety and potential impact therefore, on the child's acceptance and experience of mess, an area which warrants further inquiry.

The transformational qualities of messy play

If being marginalised is about feeling 'unimportant, undesirable, unworthy, insignificant and different' (United Nations Development Program 1996, 1) then messy play empowers marginalised children by allowing them to decide what to add to messy resources to

change their texture, consistency, colour and ultimately create 'new cleaner kinds of mixture' (Sagar 1990, 110). Giving children opportunities to exert control in Play Therapy enables them to develop mastery, a key achievement when they feel 'powerless to control other aspects of their life' (Good-Year Brown 2010; quoted in Hastings 2013, 105). This benefit of messy play may be transferable to mainstream early childhood provision.

Colour and transformation

Many of the children in the study chose to mix dark colours, a finding that has been noted elsewhere (Case and Dalley 1990; Hastings 2013; Sagar 1990). A key point that emerges from this finding is whether the colour of messy play resources is significant in terms of their 'Compatibility' (Kaplin and Kaplin 1989) with the child's emotions and whether by changing their colour, messy resources can act as a tool for communicating their life and emotional state, be it chaotic and trauma-filled or positive and enriching. Sagar (1990, 109) describes how one child 'invested … dark, wet and slimy packages with her feelings of inner chaos, mess, confusion and anxiety': dark resources may, then, be more analogous with emotional trauma than pastel colours.

Sagar (1990) also highlights children's propensity to create 'new cleaner kinds of mixture' (110) something evident in many of the author's own client's work. Keen to explore this trend further to elucidate whether transformation in the colour of mess is an indicator of emotional state, the author carried out a pictorial analysis of the work of two clients for whom messy play had featured prominently and consistently throughout their therapy. As the pictorial analysis in Figure 2 shows, over time both clients' mess underwent a significant change in colour, opacity and shininess. The colour swatches capture the clients' finished or saved mess at key points in the therapeutic process. Where possible, swatches have been provided as close to SDQ (Goodman et al. 2000) dates as possible, to add a quantifiable dimension to the data. A distinction was made between messy creations and end-product orientated actions, such as a painted picture, which were not included, as the essence of messy play is to have no externally imposed objective (Duffy 2007).

Looking at Child 1, over an eight-month period the colour of her mess underwent a striking transformation primarily in colour and texture, from shades of brown similar to faeces to pure white sparkly forms. Similarly, over the course of nine-months, the colour of Child 2's mess reveals a gradual, iterative process of transformation from dark brown opacity to pure white then finally a series of colourful sparkly creations. This pictorial analysis seems to support the idea of mess transforming to become cleaner, paler and sparklier as the child deals with emotional and behavioural issues. The contemporaneous improvement in both children's SDQ scores (Goodman et al. 2000), in terms of a lowering of Emotional and Total Difficulties scores and an increase in Pro-Social score – a useful indicator of a positive outlook for intervention (Department of Health 2016) – appears to mirror the transformation in the colour of each child's mess. This finding suggests that as children began to play: (1) they developed strategies to control and harness the messiness of their play materials, and that contemporaneously; (2) their emotional and behavioural states also improved. This is an area worthy of further consideration and analysis with a larger sample and more regular SDQ's.

It is suggested that recognition of this visual communication tool may give a voice to children on the margins, providing a useful barometer of deep-seated emotional transformation. If the colour of a child's mess (made in a therapeutic environment) represents a barometer of their changing emotional situation and resilience, then surely this also provides an indication of the value of messy play, not just in a therapeutic setting, but within the early years and primary schools too?

As Figure 2 indicates, SDQs provide a tool for exploring the correlation between a child's pro-social or emotional score and the colour of their mess. However, their use is limited by the importance of minimising adult-led interventions in the therapeutic space (as the child must be free to use their session time as they wish rather than for research-imposed monitoring purposes). With SDQ reviews typically taking place at eight week (or longer) intervals, rather than when the therapist senses transformation, this raises the question of whether children's engagement with mess can act as an alternative communication tool.

Messy play as a communication tool

Malaguzzi referred to the 'hundred languages of children' (2011) and a key research question is whether messy play and the transformational qualities described, provide a voice for gaining the perspectives of marginalised children? As with 'toys … children's words and play … their language' (Landreth 2012, 313) messy play materials do not require spoken language and their high level of affordance makes them ideally suited to the 'release of pent up feelings' (Moustakas, 1953, 1959b; cited in James 1997, 81). This point seems to be supported by Dalley's account of two six-year-old boys work with clay to address longstanding attachment issues and how this helped them put words to their pre-verbal experience (2008), paving the way to 'express the inexpressible' (West 1992, 65). A flooded box, chaotic mess of gellybaff or sandtray crammed with wild animals may all communicate powerfully a child's chaos and despair better than words.

When the therapeutic mess of 13 children was independently analysed and verified by another Play Therapist, the synergy between use of messy materials and the child's situation was apparent. As the multiple 'case studies' in Table 2 indicate, synchronicity is apparent between: (1) the types of messy play resources selected; (2) way in which clients chose to use them; and (3) the child's context, suggesting perhaps that children's use of mess communicates the state of their world.

Significance of adult's attitude to mess

Through a child's mess, trusted adults are given an experiential and often uncomfortable insight into the chaos of the child's life, and if unconditionally accepted, the child experiences acceptance, a powerful healing motivator. Many children and adults many associate mess negatively with 'being naughty', the ability to be messy in front of another person is highly significant and founded on a safe and trusting relationship. If mess is a form of communication then the therapist's response and emotional capacity to accept, contain and hold the child's mess is key to ensuring that they do not inadvertently reinforce shame, negativity or rejection. To avoid this, the therapist needs to be aware of their own response to mess. As the author has demonstrated, therapist perceptions of mess

Table 2. Using mess to communicate the child's world.

Child and Context	Messy Play Interaction
Child with disabilities, soiling issues and emotional trauma	Used a variety of messy and sticky resources, including clay, Many of which resembled excrement, to explore the safe containment and transformation of their mess to cleaner, drier forms, finally choosing to discard their mess.
Child with separated parents whose life is characterised by constant change, varying boundaries and unmet emotional needs	Carelessly transferred liquid gloop from one container to another, slopping the milky liquid like the rough handling and emotional spillage of their life. Angrily, but determinedly cleaned the spillage from clothes.
Child suddenly affected by significant change to family dynamic and an addiction-related death	Experimented with what happens when you add things that don't belong together to gellybaff. Then created a safe way for a special toy to cross the gellybaff without getting messy. [Felt like had found a way to get through situation with a minimum of 'mess'.]
Child witness of domestic violence	Experimented with mixing different substances and created several pots of contained mess, each a different colour, that they left with the therapist to keep safe.
Child whose father was convicted for domestic violence and theft	Immersed, manipulated and calmly covered their hands with dry sand and used for a game of hide and seek with the therapist.
Child whose parent is an alcoholic	Most activities, be it painting, clay or washing hands quickly regressed into smearing and splashing.

are shaped not just by the actual spread but also their energy level and attitude, degree of control, timings – whether a gradual or sudden increase in mess, practical considerations relating to clearing-up time and the degree of immersion in the child's play. These findings also have important repercussions for mainstream educators who may unknowingly be working with children who have experienced marginalisation which has left them neither ready nor able to learn.

Limitations of research

As indicated, the research findings need to be considered in the light of the level of trustworthiness secured by the research design and interpretation. Given the centrality of the therapeutic relationship to play therapy (Landreth 2012?), it is important to be aware of the potential impact of the researcher role on the therapeutic relationship, in terms of the therapist's expectations, attitudes to mess, resources and availability of opportunities, and interpretations of the resulting mess. Robson (2011) pinpoints the risk of increasing researcher bias from the researcher's unconscious influence in the therapist role. This threat of 'going native' (Robson 2011, 157) could increase transference issues or influence the client's play. The rigour of the questionnaire design and observation analysis may also be undermined by researcher influence. However, steps were taken to minimise this potential issue through peer review of clinical observations and the application of Goodman's and Hasting's quantifiable measures. Further areas of research are identified to augment this small-scale sample and fill identified research gaps.

Potential applications to early childhood education and care provision

The findings from this study suggest a number of potential applications to mainstream early childhood education and care provision:

School readiness

With trauma and marginalisation sometimes hidden, educators may be working with children in a fight or flight state whose fundamental physical and emotional needs mean they are not ready to learn. Such children need time and plentiful opportunities to work with and transform sensory-rich resources like messy play in a warm, safe and permissive environment. Findings show how educators can make school ready for some children who may need affordances to settle happily.

Value of sensory approaches

The use of hands-on multi-sensory tools for engaging children in learning will benefit and enrich children's ability to self-occupy, and help to develop a sense of agency, resilience and mastery in mainstream education.

Messy play as a learning tool

This study provides evidence of the potential value of messy play resources in developing children's sense of agency, exploring change, developing resilience and self-care.

The complexity of messy play

If educators can recognise the typology of messy play, they can offer children a wide spectrum of play and learning opportunities to suit their changing needs, interests and scientific thinking.

Pedagogical Influence

Practitioners need opportunities to recognise the value of messy play as more than simply fun, in order to understand the impact of their own attitude on children's access to and enrichment from messy play resources.

Conclusion

This article has focused on a study concerned with how young children who have experienced trauma developed strategies to control and harness the messiness of their play materials, and has considered if and how those strategies linked to improvements in their emotional and behavioural states. In doing so, the article has considered whether messy play resources offer a tool for young children to express, understand and manage their anger and emotions, receive vital sensory feedback, develop mastery and control, as well as experiencing fun.

The study focused on the specific attributes and transformational qualities of different messy play resources, presenting evidence of the relationship between affordance, use of messy play in a therapeutic context and children's strategies to express and manage emotions and bring about positive change. By observing phenomena systematically, a link between resources used and the child's mood was established. A link has also been identified between the therapist's perception of mess and therapist's mood, suggesting that the spread of mess should be considered temporally and emotionally, as well as spatially. Analysis of the visual transformation of mess and contemporaneous changes (ultimately improvements) in the child's symptoms of emotional, peer, conduct and hyperactivity problems suggest a potential value of children's messy creations in communicating their emotions, an area which requires further investigation with a larger scale sample.

Despite the limitations of this research, this study has shown that working therapeutically using messy play in a safe, permissive yet boundaried way appears to give children who have experienced marginalisation through trauma a voice. The study findings also suggest that there may be potential for children and educators in mainstream early childhood provision to realise the power and benefits of messy play.

References

Axline, V. 1947. *Play Therapy*. Cambridge, MA: Houghton Mifflin.

Baggerly, J., and E. J. Green. "The Mass Traumas of Natural Disasters: Interventions with Children, Adolescents, and Families." In *Play Therapy with Children and Adolescents in Crisis*, edited by Boyd Webb, 4th ed. New York: The Guildford Press.

Capaldi, C. A., H.-A. Passmore, E.-K. Nisbet, J. M. Zelenski, and R. L. Dopko. 2015. "Flourishing in Nature: A Review of the Benefits of Connecting with Nature and its Application as a Wellbeing Intervention." *International Journal of Wellbeing* 5 (4): 1–16

Case, C., and T. Dalley. 1990. *Working with Children in Art Therapy*, edited by C. Case and T. Dalley. New York: Routledge.

Crenshaw, D. A., R. Brooks, and S. Goldstein. 2015. *Play Therapy Interventions to Enhance Resilience*. New York: The Guildford Press.

Dalley, T. 2008. "'I Wonder if I Exist?': A Multi-Family Approach to the Treatment of Anorexia in Adolescence." In *Art Therapy with Children: From Infancy to Adolescence*, edited by C. Case and T. Dalley, 215–231. East Sussex: Taylor & Francis.

Department of Health. 2016. *Strengths and Difficulties*. Accessed December 8, 2016. https://www.cafcass.gov.uk/media/215237/child_aged_11-16.pdf ISBN 0 11 322426 5.

Duffy, S. 2007. *All about … Messy Play. The Early Years Foundation Stage Primary National Strategy*. D of E.

Gascoyne, S. 2012. *Treasure Baskets and Beyond: Realizing the Potential of Sensory-Rich Play*. Suffolk: Open University Press.

Gascoyne, S. 2015a. *Messy Play Survey*. Survey Monkey.

Gascoyne, S. 2015b. "The Special Qualities, Benefits and Application of Messy Play in Special Time." Unpublished Diploma Essay., Leeds Beckett University.

Gburczyk, K. 2012. *The Role of Messy Play*. 9 July [Online blog]. Accessed March 23, 2015. http://www.childrenstherapies.co.ik/the-role-of-messy-play.

Gibson, J. J. 1979. *The Ecological Approach to Visual Perception*. Mahwah, NJ: Lawrence Erlbaum Associates.

Goodman, R., D. Renfrew, and M. Mullick. 2000. "Predicting Type of Psychiatric Disorder from Strengths and Difficulties Questionnaire (SDQ) Scores in Child Mental Health Clinics in London and Dhaka." *European Child & Adolescent Psychiatry* 9: 129–134. doi:10.1007/s007870050008.

Good-Year Brown. 2010. In Hastings, C. (2013). "Messy Play – An Evaluation of the Therapeutic Messy Play of Looked After Children and their Changing Emotional Needs." Unpublished MA thesis., APAC/Christchurch Canterbury University.

Hastings, C. 2012. "Containing the Chaos and Mess." Unpublished theoretical essay., Salomons, Tunbridge Wells.

Hastings, C. 2013. "Messy Play – An Evaluation of the Therapeutic Messy Play of Looked After Children and Their Changing Emotional Needs." Unpublished MA thesis., APAC/Christchurch Canterbury University.

Hedges, H., and S. Jones. 2012. "Children's Working Theories: the Neglected Sibling of Te Whāriki's Learning Outcomes." *Early Childhood Folio* 16 (1): 34–39.

Hutt, S. J., S. Tyler, C. Hutt, and H. Christopherson. 1989. *Play, Exploration and Learning*. London: Routledge.

James, O. O. 1997. *Play Therapy – A Comprehensive Guide*. Lanham: Jason Aronson Inc.

Jennings, S. 2014. "Applying an Embodiment-Projection-Role Framework in Groupwork with Children." In *Play Therapy Today*, edited by E. Prendiville and J. Howard, 81–96. Abingdon: Routledge.

Kalu, D. 2002. "Containers and Containment." *Psychodynamic Practice* 8 (3): 359–373.

Kaplin, S., and R. Kaplin. (1989). In: Wells, N. M and Evans, G. W. (2003) "*Nearby Nature: A Buffer of Life Stress among Rural Children*." Environment & Behaviour 35 (3): 311–330.

Landreth, G. L. 2012. *Play Therapy: The Art of the Relationship*. Hove: Routledge.

Malekpour, M. 2007. "Effects of Attachment on Early and Later Development." *The British Journal of Development Disabilities* 53 (Part 2, No. 105): 81–95.

Malaguzzi, L. In: Stonehouse, A. 2011. The 'Third Teacher' Creating Child Friendly Learning Spaces. http://www.imagineeducation.com.au/files/GapTraining/NCAC_20_20The_20third_20teacher_ChildFriendlySpaces.pdf. In: Putting Children First. National Child Care Accreditation Council Issue 38, 28 June, p.12–14.

Morton K. 2014. "Parents discouraging children from messy play." *September 29*. Accessed February 13, 2017. http://www.nurseryworld.co.uk/nursery-world/news/1147075/parents-discouraging-children-messy-play.

Nottinghamshire Children and Families Partnership. 2016. *Messy Play / Fun Fridays / Sticky Fingers, Muddy Toes*. Accessed December 5, 2016. http://www.surestart.notts.nhs.uk/activity_info.aspx?id=37.

Perry, B.D., L. Hogan, and S. J. Marlin. 2000. *Curiosity, Pleasure, and Play: A Neurodevelopmental Perspective*. Haaeye advocate.

Perry, L. K., L. K. Samuelson, and J. B. Burdinie. 2013. "Highchair Philosophers: The Impact of Seating Context on Young Children's Naming Biases." *Developmental Science* 17 (5): 757–765. doi:10.1111/desc.12147.

Play Therapy UK. 2016. *Ethical Principles of Play, Creative Arts and Filial Play*. [Online]. Accessed December 20, 2016. http://playtherapy.org.uk/Standards/EthicalFramework/EthicsPrinciples

Robson, C. 2011. *Real World Research*. Oxford: Wiley.

Sagar. 1990. "Working with Cases of Child Sexual Abuse." In *Working with Children in Art Therapy*, edited by C. Case and T. Dalley, 89–114. New York: Routledge.

Sonnier, A. 2016. *Learn Play Imagine. 200+ Ideas for Messy Play*. Accessed December 5, 2016. http://www.learnplayimagine.com/2013/02/200ideasformessyplay.html.

Szekely, G. 2015. *Play and Creativity in Art Teaching*. New York: Routledge.

Tomkins, Stephen and Sue Dale, Tunnicliffe. 2007. "Nature Tables: Discovering Children's Interest in Natural Objects." *Journal of Biological Education* 41: 150–151.

Tunnicliffe, S. D. 2016. *Starting Inquiry-Based Science in the Early Years*. Oxon: David Fulton.

United Nations Development Program (UNDP). 1996. *Human Development Report 1996*. New York: UNDP / Oxford: Oxford University Press.

Vanfleet, R, and C. Mochi. 2015. "Enhancing Resilience through Play Therapy with Child and Family Survivors of Mass Trauma." In *Play Therapy Interventions top Enhance Reslience*, edited by D. A. Crenshaw, R. Brooks, and S. Goldstein, 168–193. New York: The Guildford Press.

Webb, N. B., ed. 2015. *Play Therapy with Children and Adolescents in Crisis*. 4th ed. New York: The Guildford Press.

West, J. 1992. *Child-centred Play Therapy*. Suffolk: St Edmundsbury Press.

Appendix A. A typology of messy play resources.

Classification of Resources*	Types ofResources	Uses	Emotion/Energy
Dry Textures	Dried lentils	Rhythmically moving hands through lentils	Calm, gentle
		Pouring, sprinkling, decorating with	Calm, gentle
		Mixing with wetter resources (see below)	Determined, focused
	Dried rice	Rhythmically moving hands in arcing motion	Calm, focused
		Trickling through hands	Calm but determined
		Mixing with water	Focused, scientific
	Sand, glitter, sequins, dried rice, dried lentils, coloured stones, beads mix	Sprinkling on glue and artwork. Piling up to cover it then tipping off to see what has stuck	Careful, calm
	Sand	Rhythmically moving arms through sand	Calm, gentle
		Trickling sand on hands and objects	Calm, gentle
		Burying hands and objects	Calm, gentle
		Building (or attempting) sandcastles	Calm, determined then frustrated
		Role-play	Calm, energised/frantic
		Mixing with wetter resources (see below)	Determined, focused
	Shredded paper	Sitting in and covering whole body	Calm, happy
	Dry powder paint	Sprinkling on fluorescent paper from a height in darkened room	Calm, focused
		Mixing with wet paint to make footprints	Energised, determined
		Sprinkling on a container of tissue and water and watching colour spread, mix and settle.	Calm, focused
	Maize packing peanuts	Mixing and dissolving in water	Calm, focused
In-between Textures, i.e. Resources that are not dry but don't stick to the skin	Homemade playdough (scented, coloured or sparkly)	Squeezing and moulding with fingers	Calm, gentle
		Creating people, patterns, bowls, coins	Calm, focused
	Shop-bought Playdough	Squeezing and moulding with fingers	Relaxed, sensory satisfaction
		Shaping and cutting	Calm, happy, focused
		Creating food or animals for role-play	Calm, happy, focused
		Enveloping small-world figures until partially/completely covered.	Determined, focused
		Painstakingly cleaning playdough off Lego figures	Determined, intense
	Water	Washing and cleaning with	Calm, gentle, focused
		Mixing with other resources	Sometimes calm, sometimes frantic
		Flooding the floor	Determined, frenzied
		Drowning figures in bucket of water	Calm, sad, sense of powerlessness
	Sticky Beads	Moulding animals, flowers, eggs	Calm, disappointed
	Carving dry/wet soap	Moulding into an egg shape. Trying to fuse two halves of egg together.	Calm, focused, frustrated

(*Continued*)

Appendix A. Continued.

Classification of Resources*	Types ofResources	Uses	Emotion/Energy
Messy Textures	Dry andWet Clay	Moulding into poo-like sculptures	Calm, focused, determined, frustrated
		Building towers and animals	Calm, focused, determined
		Decorating with patterns	Calm, focused, determined
		Mixing with water, glue and gloop	Determined, scientific, frustrated as 'not sticky enough'
	Plastecine	Rolling, shaping, connecting	Calm, focused, determined
		Creating things, e.g. bowls, buildings	Focused, calm, occasionally frustrated
		Enveloping figures with	Energised, determined, enigmatic
	Shaving foam	Squirting like spiderman	Delighted, determined, masterful, focused
		Mixing	Excitedly
		Smearing on body	Frenzied
		Smearing on body in role-play	Calm, determined, focused, pensive
	Gloop	Pouring/transferring	Intent, focused then angry and frustrated when spilt
		Mixing, diluting, transforming	Focused, determined
		Spilt on clothes and shoes	Angry, frustrated
	Gellybaff	Touching, cleaning, shaking it off	Determined, repulsed, animated
		Sink and float	Energised, determined, funny, angry
		Mixing	Energised
		Role-play	Calm, calculated, 'evil'
	Paint	Mixing colours, experimenting with transformation	Calm, decisive, driven
		Pouring	Focused, determined
		Smearing on/with body	Sometimes calm, dreamy sometimes energised, frantic, as though 'possessed'
		Splatting and spraying	Frantic, energised, out of control
	Messy pots	Containing and storing mess	Calm, in control, intrigued

*Adapted from Gburczyk (2012).
Clinical case studies (Gascoyne, 2014–16).