Anonymous Main Document

Maternal experience of Lego Therapy in families with children with autism spectrum conditions: What is the impact on family relationships?

Abstract

This study aimed to explore mothers' experience of implementing Lego Therapy (LeGoff, 2004) at home within the family. Following a Lego Therapy training session, mothers carried out hourly sessions with their child with an autism spectrum condition and the child's sibling, once a week, for six weeks. Mothers were interviewed following the intervention, and the data was analysed using Interpretative Phenomenological Analysis (Smith, Flowers and Larkin, 2009). Themes emerged around improved family relationships, a positive impact on the child as an individual, and changed maternal, sibling and child perspectives. Challenging and facilitative aspects also emerged, as did some ambivalence about the impact of the intervention in the wider context. The findings are supportive of previous Lego Therapy studies and have implications for strengths-based service provision.

Keywords

Autism spectrum, Lego Therapy, social skills interventions

Introduction

The autism spectrum and family relationships

Children with autistic spectrum conditions (ASC) experience social difficulties which can impact on their ability to form relationships (e.g. Konging and Magill-Evans, 2001; Orsmond et al., 2004), and be particularly challenging within families (Kaminsky and Dewey, 2002).

Wide variability in parent-child and sibling relationships of children with ASC have been described. Montes and Halterman (2007) reported that despite increased stress levels, mothers of children with ASC showed remarkable strength in their parent-child relationships. Orsmond et al. (2006) suggested that characteristics of both child and mother affected these relationships. Meanwhile, Kaminsky and Dewey (2001) found that sibling relationships of children with ASC showed less intimacy, pro-social behaviour or nurturance compared to those of children who have Down Syndrome or are typically developing, but children also reported greater admiration of their sibling with ASC and less quarrelling and competition in their relationships..

Family relationship interventions

Every Child Matters (2004) states that all children should have the support to develop positive relationships, and families are key to this. Indeed, family systems theory

suggests that the family operates as an interactive unit, with each member affecting each other and so any intervention should support all family members (Seligman and Darling, 2007). Whilst the role of the family has been considered in interventions for children with ASC (e.g. Jones and Schwartz, 2004; Schertz and Odom, 2007), the impact on family relationships has not been directly examined.

Social communication skills interventions and Lego Therapy

A range of social skills interventions for children with ASC have been favourably reviewed in recent years (e.g. Lopata et al., 2010; Rao et al., 2008; Reichow and Volkmar, 2010; Sansosti and Powell-Smith, 2006, Bolander et al., 2012). However, many are based upon social learning theory (Matson et al., 2008) despite the fact that these children often having difficulties attending to social learning opportunities and may have little intrinsic motivation to learn such skills (Attwood, 1998). LeGoff (2004) suggested that although the child may be able to demonstrate social behaviours when prompted by adults, generalising these skills or initiating social interaction may remain problematic. Additionally, many interventions for children with ASC are viewed as difficult and un-engaging. Clinical observations suggest there may be a frequent shared interest in Lego for children with ASC. Using Lego in structured collaborative play capitalises on this natural interest, thus improving motivation and engagement (Koegel, 1995). Indeed, Murray, Lesser and Lawson (2005) argue that this commonly seen

restricted range of interests, or monotropism, is central to ASC, supporting the idea of focusing an intervention on the particular interests of individuals with ASC.

Consequently, LeGoff (2004) designed Lego Therapy, a structured and comprehensive therapy tool to support development of social skills. Lego Therapy involves placing children with ASC into groups of three with other children with ASC, and asking them to build Lego sets together by following instructions provided, with a social division of labour (LeGoff et al., 2014). To do this, they must follow a set of rules covering behavioural conduct in the group (e.g. "no climbing on furniture") and social conventions (e.g. "if someone else is using it, don't take it"), with built in strategies to develop social skills and sustain the interactions. This requires joint task focus, shared attention, sharing, problem-solving and mutual goals, reciprocal reliance and communicating effectively (LeGoff et al., 2010). Each child takes one of three roles, rotated at regular intervals:

- planner – reads the instructions;
- searcher – find the pieces;
- builder – builds the model.

Three studies have investigated the use of Lego Therapy within groups of children with ASC, for between 12 weeks-36 months (LeGoff, 2004; LeGoff and Sherman, 2006;

Owens et al., 2008). All studies found quantitative increases in social competence (motivation to initiate social contact, ability to sustain peer interaction, and overcoming difficulties such as aloofness and rigidity) when compared to either pre-treatment or Social Use of Language Programme control groups, as well as high engagement levels. Additionally, LeGoff and Sherman (2006) found these improvements in social competence generalised to natural settings. Furthermore, groups for children are relatively easy to implement and tend to be highly popular (Evans et al., 2014).

Lego Therapy and families

Schertz and Odom (2007) supported family inclusion in interventions for children with ASC, arguing it can capitalise upon the role of the caregiver as the primary medium for social communicative learning. Indeed, LeGoff (2004) included siblings as helpers in Lego Therapy, and found they were familiar with the problems of their sibling and required little prompting to provide redirection for repetitive behaviours.

Given the potentially positive impact of Lego Therapy and the lack of research into family relationship-focused interventions, the current study aims to explore a) the maternal experience of implementing Lego Therapy at home where the three roles will be taken by a parent, child and sibling, and b) how Lego Therapy influences maternal perceptions of their family relationships.

Previous research into Lego Therapy has taken a quantitative approach with the aim of measuring effectiveness. As the current study aimed to consider the nature of the mother's experience of the intervention, rather than assessing outcomes, a qualitative approach was considered the best approach, gathering detailed data in an effort to seek a more ecologically valid perspective.

Method

Ethics

Ethical approval was obtained from the relevant research registry and ethics committees. Informed consent was obtained from participants prior to participation, and all information was kept confidential and anonymised.

Participants

Fifteen mothers were contacted through a local Child and Adolescent Mental Health Service (CAMHS), seven of whom opted to participate. Participants had a minimum of two children aged 5-16 years, at least one with ASC. Two participants were subsequently excluded; one because it was not possible to complete the interview in the timescale required, and one due to considerable variability in intervention administration.

Two participants were 30-40 years, and three were 40-50 years. Three were married, one was co-habiting and one was divorced. Three were not working, one worked part-time and one worked full-time. Four identified as White British, one identified as White Other.

Ten children in five sibling pairs participated; six children with ASC and four children without ASC. In one family, both children were with ASC. Children with ASC received a diagnosis of autism via a CAMHS multi-disciplinary assessment which incorporated the Autism Diagnostic Observation Schedule (ADOS; Lord et al., 1989). No children had significant learning needs; two were home-schooled (the sibling pair who both had ASC), but the others all attended main-stream school.

The target children with ASC (4 boys, 1 girl) were 8.4-11.8 years old (mean age = 10.2 years, S.D. = 1.5 years). Two children were receiving ongoing Psychology services, one was in contact with Psychiatry services and two were receiving no current ongoing treatment. Two children were receiving medication (1 x risperidone, 1 x sertraline). Siblings (4 boys, 1 girl) ranged from 6.8-12.4 years (mean age = 8.4 years, S.D. = 2.4 years).

Measures

An individual semi-structured parental interview gathered qualitative data about the experience of implementing Lego Therapy, and the parent-child and sibling relationships post-intervention. No child level measures were administered.

Data analysis

Data were analysed using Interpretative Phenomenological Analysis (IPA) (Smith et al., 2009). Given the focus on the lived experience of parents of delivering the intervention, IPA was a suitable methodology. Independent audits of the analysis process, checking the researcher's initial notes, emergent themes and superordinate themes for validity, were carried out within the supervisory team and also with an independent Trainee Clinical Psychologist.

Procedure

Recruitment. Possible participants were identified and initially contacted by the Lead Clinical Psychologist of the CAMHS, who gave them an information form. Interested participants were then contacted by the researcher.

Training sessions. Participants and their children were invited to attend a training session at the CAMHS clinic where further information about Lego Therapy was provided, including the structure of the sessions to be carried out at home, ideas for

planning these into the family life, and how each session should be facilitated, using the rules provided. The lead researcher then facilitated a one-hour trial session for each family, supporting and guiding the parent to lead her family in a real-time Lego Therapy. Both children and the parent were given opportunities throughout the session and at the end to ask questions. Children were given an information sheet, and families were given laminated copies of Lego Therapy rules to take home.

Lego Therapy sessions. Participants held six one-hour Lego Therapy sessions weekly, using a Lego set and the instructions provided to try to build a Lego model. Each family member (parent, child and sibling) adopted one of the three previously outlined roles, swapping at regular intervals. The researcher telephoned each parent half-way through the intervention phase to provide any required ongoing support and check treatment fidelity. Parents were able to telephone if they had any concerns or queries, though none did.

Parental interviews. Following the intervention phase, parents were invited to individual meetings lasting up to one hour, held at the CAMHS clinic, where standardised semi-structured interviews were administered. Example questions include "can you tell me about your experience of Lego Therapy over the last 6 weeks?", "in what ways do you think Lego Therapy has affected your relationship with child" and "in

what ways do you think Lego Therapy has strengthened or weakened your family relationships".

Subjectivity and reflexivity in the research process

Elliott et al. (1999) discuss the importance of owning one's own perspective in qualitative research. The researcher had some previous experience of Lego Therapy, having facilitated a group in the past which prompted their interest in this area, but was not involved in promoting it as an intervention more broadly. Furthermore, the researcher has an interest in family relationships as well as systemic therapy models, in which strengths as well as difficulties are highlighted, which may have supported listening for positive experiences as well as barriers and difficulties.

Results

Four of the five participants included completed the intervention. One participant (Diane) disengaged from the intervention, though still attended her interview about the experience and was included in the analysis to ensure an even representation of the experiences. All other participants remained engaged in the intervention.

Three superordinate themes were identified with seven subordinate themes. A number of these subordinate themes revolved around the family, including improved family

communication, new perspectives and understanding of each other, their behaviours and their time spent together as a family, and the experience of more appreciative and interactive relationships. Other subordinate themes appeared to connect around the child with ASC and how the ASC fit with the intervention or made it more difficult, and the progress and development that parents felt the children achieved. A third area in which subordinate themes clustered was the intervention itself, including ambivalence about the intervention and issues around time. It is notable that few negative experiences were reported, which will be considered within the discussion. All participants were given pseudonyms. Numbers following quotes refer to transcript line numbers.

Family-specific factors

Communication. Lego Therapy was experienced as providing a setting in which mothers were reminded of the need for simple and clear communication:

> 'It's improved our communication which I think is the, the best bit of it all...it's like a beam of light that's sort of, okay, we've got to rethink this, we've got to calm it down...this has shown me that he does struggle and it's enabled me to simplify my language and that has to be the, the best thing that Lego Therapy has done'. (Lucy, 495-505)

Improved communication was also notable in the sibling relationship:

> ‘It’s certainly helped Danny and Chris, they’re squabbling less. It sounds pathetic, they’re children, they squabble, but it’s made them both realise that they have to speak nicely to each other’. (Lucy, 222-228)

The impact on other family relationships also emerged for some. Two mothers talked about being able to share their learning, helping improve fathers’ communication with the child, and provide new interaction opportunities for the father-child dyad:

> ‘It’s certainly enabled me to sort of say to my husband “look Danny has problems with verbal language, if you speak to him quickly, you might as well just not bother because he won’t follow all that you’re saying”, and that’s helped him understand that it’s not just him. Because Graham tends to sometimes see Danny and him, himself, being in some sort of long-lasting battle, whereas now I think he can see that it’s actually genuinely a problem for Danny, and it has helped him to speak slower and calmer with him’. (Lucy, 204-218)

The lessons learnt about communication also helped in her marital relationship:

> 'It's improved my relationship with my husband, just by making me more aware of the way you speak and how you convey information…it's put a spotlight on the fact that I'd always assumed that my husband knew what I knew about autism, which in reality, he doesn't, because he just won't get involved with it, but now I accept that and try to explain things more simply'. (Lucy, 409-419)

New perspectives and understanding. The "beam of light" that Lucy refers to largely refers to family communication, but also highlights how the intervention provided a spotlight for the child's difficulties, allowing mothers to consider more deeply how to best manage these:

> '...probably calmer, yeah, calmer...I just feel that I'm understanding him more now, I'm seeing where a lot of the stuff's come from...so I think it's getting a better understanding really, and having to really try and look at a situation and stay calmer myself as well, and I think probably because the calmer I am, the calmer we can keep the situation when he's spiralling out of control'. (Claire, 262-290)

In particular, mothers talked about the intervention as a catalyst for reflection about alternative ways of spending time together, and realising the value of this family time:

> ‘Just coming for that one session has made me think a lot more about how good about themselves they could feel if they would work together and play together...I think it does make you more aware of how important it is to try and get them to learn how to be with each other, rather than just telling them off all the time. Cause your instant reaction is “no don’t talk to them like that” and “don’t do this” and “don’t do that”. It’s not really a very helpful, it’s more creating an environment where they can be together, it’s more helpful...it has made me more aware of that’. (Diane, 396-413)

Mothers referred to having a split family, and spending time separately with each child. The intervention gave a new perspective on this:

> ‘I think it’s just made me realise that it’s nice and important to take some time out to do something like that because together, because we tend to avoid confrontation and we tend to split them up, and I think doing this now, I realise that it’s not always necessary’. (Louise, 127-130)

Lego Therapy also opened up new perspectives for the children with ASC. Diane talked about it as a medium through which her child could consider alternative ways of behaving:

> 'Maybe it is to do with the Lego Club, that it's made him more aware that you know, there are certain ways of behaving, there are other ways of behaving other than his way of behaving people'. (Diane, 481-485)

More appreciative and interactive sibling relationships. Mothers felt that the improvements in communication and understanding helped develop more meaningful relationships. Some noticed an increase in joint play, shared interests and appreciation between siblings:

> 'They seem closer at the moment...I think that (Lego Therapy) has helped, and I think because they're sitting down and they were giving each other time, rather than the interaction that boys normally have together...I think maybe they appreciate each other a little bit more...I can see that there are signs that they can sit back and appreciate each other and that they can work as a team'. (Claire, 301-313)

Mothers also discussed how sibling perspectives were affected by the intervention, providing a different experience to their more typical sibling interactions. This seemed to have a mutually interactive impact on the children's perspectives of each other:

> 'I think it's made David see Hazel in a more positive way, cause as I said she can be, sometimes I think he finds her as being quite destructive and hard to get on with, umm, and so I think, I think in turn she sees him in a more positive way, cause they did have that time where they interacted together and it was fun, saw each other as in a more positive way'. (Rita, 212-217)

These changes generalised somewhat to the wider family context:

> 'I think over Christmas...they seemed to want to interact more than they have in the past, so yeah, I think it did have that knock-on effect, that they, he thought she might cope with doing something, without the board going up in the air'. (Rita, 222-227)

Child-specific factors

Other distinct aspects focused on changes within the child as an individual, as well as the impact of the child's ASC on both the successes of and struggles with implementing Lego Therapy.

ASC and Lego Therapy fit. Some mothers spoke about the challenges to implementation that their children's needs presented. One parent described how some sessions had to be ended prematurely:

> 'Mainly Josh's moods really, definitely more his moods and the anxieties that, there's times when it should have been okay and we sort of started it, and then probably several sessions ended after about five minutes, ten minutes, because we couldn't pull them back again...he was just getting too feisty'. (Claire, 49-57)

However, the clear rules, although challenging, were welcomed by mothers who found they served to reduce the child's confusion and distress and support her to continue participating:

> 'For Hazel it was good because she, because the rules are sort of quite simple, she knew exactly what she was going, whereas if we do other family activities

> sometimes, other board games, the rules are too complicated for her and she would just get frustrated and not continue, so in that was it worked quite well because she knew exactly what to expect'. (Rita, 155-161)

Child-specific developments. Mothers spoke about a range of changes in their child with ASC over the course of the intervention. These included perceptions of reduced anger and aggression, improved ability to focus, concentrate and listen to instructions, increased flexibility and scope for abstract thinking, improved communication skills, reduced impulsivity, and higher self-esteem. Whether these changes were seen as generalising was variable. For Claire, the improvements were session-specific:

> 'Definitely his communication skills, they were getting better towards the end. More in the session than obviously carrying it on necessarily after, but certainly, his verbal ability during the session was definitely better. You know, in terms of everything really, you know, the whole sort of praising and the way he was using those words, the descriptive words he was using, and the way he was you know, he was managing to do that, I would say, definitely, definitely better'. (Claire, 560-566)

However, Lucy talked about the tangible impact it had on her son's attainment outside of the sessions:

> 'That's really improved, umm, he's a lot more able to talk to people and to, just listen and react appropriately...he actually got an award from his gymnastics club on Saturday night, Friday night, umm, for effort and enthusiasm, which was brilliant, and I think it's because he's calmed down, he's not so grumpy, because he was a bit, either hot or cold at doing things, and he seems to be managing other children better...' (Lucy, 649-661)

Intervention-Specific Factors

Mothers experienced some barriers to implementing the intervention and expressed some ambivalence about its impact.

Time. Time presented a particular barrier, both in terms of having enough and finding the right time for the intervention. For one parent, this meant not implementing it at all, as she struggled to balance family life and managing a child relatively recently diagnosed with ASC in the context of little external support:

> ‘I think there’s too much to cope with, with all the history, plus the last nine years, plus trying to come to terms with all this, plus trying to find a way to move forward, and then there’s trying to deal with all three of them, and doing it on your own [laughs], you know, it’s quite trying’. (Diane, 669-673)

External context was important for others; events, such as difficulties at school, affected their ability to implement the intervention effectively:

> ‘It’s a shame really, because I think, given the circumstances, if the circumstances had been different, and Josh hadn’t been going through his issues, it probably would have had a bigger impact...if things had all been calm with him, we would have had a lot more sessions and probably would be a bit further on’. (Claire, 211-219)

Intervention ambivalence. Most mothers expressed some uncertainty about the impact of the intervention compared to that of other concurrent factors in the wider context.

Louise talked about the likely combination of elements involved in changes within her family and her uncertainty about which were most instrumental:

> 'I don't know whether that's just the Lego, I think it definitely has helped during the sessions, that we were calm and patient, obviously there was no frustration there, but it's just because Robert generally seems a lot happier, that obviously there is less friction anyway...it's probably a combination, yeah, probably a combination yeah of him generally being happier and also I think yeah, maybe the Lego'. (Louise, 264-276)

Given this uncertainty, it was interesting that all mothers (bar the one who did not implement the intervention) intended to continue the Lego Therapy at home after completion of the required sessions, reflecting in particular on the children's enjoyment of the sessions:

> 'It's been a really positive experience and they actually want to carry it on'. (Lucy, 12-13)

Discussion

This study explored the maternal experience of implementing Lego Therapy within the context of their family relationships. Mothers reflected on the impact the intervention

had on family communication, relationships and perspectives and on the child themselves. They discussed the fit of the intervention with ASC, and their ambivalence about the intervention.

Family-specific factors

Mothers focused on improved family communication and gains in understanding. Rao et al. (2008) argued that social communication skills are fundamental for the development of relationships, thus it follows that an intervention shown to improve communication skills improved relationships. Vangelisti (2004) suggested that when family members communicate, they enact their relationships and create mental models of family life which are maintained over time, perhaps accounting for the importance of improved communication for mothers.

The interactive and interdependent nature of the improvements in family relationships echoes family systems theory (Goldenberg and Goldenberg, 2003; Seligman and Darling, 2007; Turnbull and Turnbull, 2001). Within the current study, consideration of family sub-systems was facilitated by inclusion of mother-child and sibling dyads. Moreover, the extension of some mothers' learning to father-child and marital relationships highlights the potential for Lego Therapy to develop interdependent changes for a whole family system. Interventions for children with ASC have not

directly targeted family relationships, or have previously done so only at an individual or couple level (Seligman and Darling, 2007).

Lego Therapy appears to offer a non-stigmatising, child-motivating social skills intervention with potential to improve family relationships. Mothers reflected on how direct involvement in the intervention at home allowed them to learn more quickly about their child and to generalise this to other family settings. Sofronoff et al. (2005) support the inclusion of parents in interventions with children with ASC, suggesting it helps parents to feel more competent in the intervention content and therefore more able to support their child.

Indeed, Attwood (1998) argued that parents want treatments which empower them to manage their own children, and emphasise the principle of collaboration between parent and professional. Research shows strengths-based approaches have been most effective within family services (MacLeod and Nelson, 2000) and are advocated in the National Service Framework for Children, Young People and Maternity Services (2004). Lego Therapy may be one such methodology.

The positive outcome of including siblings supports LeGoff's (2004) results with siblings as helpers. These improvements in sibling intimacy, pro-social behaviour and

nurturance, which are factors previously found to be diminished in the sibling relationships of children with ASC (Kaminsky and Dewey, 2001), support the inclusion of siblings in interventions. These findings suggest Lego Therapy may be of particular value for siblings of a child with ASC, providing an opportunity for developing alternative views of each other. This again echoes the principles of systemic and narrative models, focusing on the opening up of alternative perspectives and exceptions to previously accepted views (e.g. Freedman and Combs, 1996; White and Epston, 1989).

It is not evident whether Lego Therapy presents a unique experience within which family perspectives can be considered, or whether this is a possible outcome of spending any enjoyable family time together. It may be that the intervention provided a relatively simple and motivating means through which a previously difficult goal, of creating family time, became possible.

Child-specific factors

One of the main barriers to intervention implementation was the child's difficulties. This is unsurprising, given the elevated rates of anxiety disorders and other behavioural difficulties in children with ASC (e.g. Green et al., 2000; Kim et al., 2000). Although LeGoff (2004) found that the additional needs of children with ASC did not prevent

participation in Lego Therapy, these interventions were carried out by a number of trained facilitators, which may be required to ensure smooth implementation. This raises the question of timing; whether to wait until the child is more settled, or attempt to conduct the intervention with a view to alleviating some of the child's difficulties.

The rules were cited as helpful for some families, echoing the broader literature about the appeal of structure for children with ASC (e.g. Dodd, 2005). Moreover, the children's passion for Lego was repeatedly mentioned as beneficial to implementation. This supports using a child's choice of materials in order to improve motivation and engagement (e.g. Attwood, 1998; Greenspan and Wieder, 1998; Koegel, 1995).

Intervention-specific factors

The pressures mothers were under to balance all the aspects of family life was very apparent, and for some, attempting to implement a home-based intervention with relatively little support brought additional stress. Williams and Wishart (2003) found that parents of children with ASC implementing a highly intensive home-based intervention experienced big time pressure. However, other drawbacks reported such as having less time to spend with other children were minimised in the current study. The potential stress needs to be balanced against the ecological validity of this approach,

compared to a more structured, clinician-led and clinic-based intervention which may be less empowering for families but offers more direct support.

Mothers' ambivalence about the intervention could reflect mothers' attitudes more broadly about external interventions. Alternatively, the short duration of the intervention and the complex pattern of factors involved may have made it difficult for mothers to untangle what was most important. Either way, mothers seemed to hold a curiosity and uncertainty about the impact.

This curiosity may be partly responsible for intent to continue with the intervention. The hope that mothers expressed about the impact of the Lego Therapy could continue to link to relationship improvements. Kausar et al. (2003) found that increased family cohesion was associated with the development of a hopeful attitude, and it is possible that the improvements experienced in family relationships helped families to maintain this sense of hope.

Methodological considerations

Given the nature of the intervention and the inexperience of families, it was difficult to ensure treatment fidelity, and families did make some adaptations. While a certain number and duration of Lego Therapy sessions was recommended, it is not known

exactly how many hours and sessions of Lego Therapy families engaged in. Thus, the impact of the intervention needs to be considered within a broader Lego Therapy model, rather than related to specific aspects of it, such as length or number of sessions. In addition, the current intervention was much briefer than that used in previous Lego Therapy studies (LeGoff, 2004; LeGoff and Sherman, 2006; Owens et al., 2008).

Only mothers were interviewed and thus the child with ASC, sibling and paternal experiences are unknown. The sample size is relatively small and was generated using one service in one geographical area, thus limiting generalizability. However, the purpose of qualitative research is not to identify globally applicable cause and effect relationships (Willig, 2008), but to generate insights into the dynamics and experiences of a small number of cases. The family setting gives the study high ecological validity, suggesting the data do reflect the genuine experience of these mothers.

The use of the maternal rather than the child perspective to consider the impact on sibling relationships could be questioned. It remains to be seen whether the themes that mothers emphasised would be reflected in the children's experience had they been directly consulted.

The majority of experiences of Lego Therapy within this study were positive. However, this may be because the intervention focused on pre-existing strengths and interests of the child with ASC, rather than because it offers an intervention which could be generalizable to areas of little intrinsic interest to the child. Indeed, the ambivalence that some mothers reported suggests that Lego Therapy might not be suited to all families who have a child with ASC. The nature of the study is such that those families who would find this type of intervention difficult or who did not feel it would fit with their child's needs, would have been less likely to choose to participate in the study meaning the experiences reported are more likely to be positively skewed.

Clinical implications

The findings are supportive of the use of Lego Therapy in families at home, with a particular emphasis on improvements in family relationships and child-specific characteristics. However, the challenges encountered highlight the importance of the right context in order to maximise the impact, and ensure families do not experience it as another failure. Families whose wider context was more settled seemed to benefit the most, and it may be that it is not suitable with families whose context is more chaotic or whose child is experiencing more significant difficulties. One way to reduce the potential stress could be to draw together families who are using the Lego Therapy at

home into a group at some stage, perhaps mid-way through the intervention period, to help parents feel more supported and offer a generalisation opportunity for the children.

For those families who are able to cope, Lego Therapy in families seems to provide a relatively simple way to engage their children with ASC in an intervention that potentially has very broad impact. Given that the intervention focuses on building strengths, rather than alleviating problems, it fits well with the approach often applied in systemic or solution-focused therapy (e.g. de Shazer and Dolan, 2007; Lethem, 2002) and may provide a low-level, non-stigmatising and flexible alternative to more formal systemic approaches.

More broadly, the findings support the inclusion of parents and siblings in interventions for children with ASC. If clinicians are able to train families in the use of Lego Therapy, rather than invite only children to participate in clinic-based social skills or relationship-based interventions, this may free up some clinical time. This has consequences for increasing access to services, though this always needs to be balanced against providing the appropriate approach for the family, which is most likely to be a combination of interventions at different levels.

Future research

Given the difficulty comparing the current qualitative findings with previous quantitative studies (LeGoff, 2004; LeGoff and Sherman, 2006; Owens et al., 2008), a mixed method design may be useful. Future research could in particular focus on the effectiveness of this intervention within families in the home, rather than the experience of this intervention as within the current study. Comparison of the impact of a clinic-based versus a home-based intervention would be informative in terms of planning effective service provision.

Future research should also establish whether the impact of the intervention generalised to settings outside of the home or non-family relationships, particularly in terms of longitudinal effects.

More research is required to investigate how family-based Lego Therapy can best be implemented with those families who have additional needs, for example in tandem with individual sessions. It would also be useful to compare Lego Therapy to other interventions designed to improve family relationships in terms of impact and family experience. Other family members' perspectives should be incorporated, including the child's experience, to ensure the intervention is truly family-centred. Finally, more

research with larger samples in the same population is warranted to help build a more comprehensive picture of the experience and impact of Lego Therapy with families.

Summary

This research explored maternal experiences of implementing Lego Therapy in families in the home. Emerging themes included developing communication, deeper family relationships and gaining new perspectives, as well as the impact of the child's ASC. Time and ambivalence about the impact of the intervention were also important. The findings are supportive of previous Lego Therapy studies (LeGoff, 2004; LeGoff and Sherman, 2006; Owens et al., 2008) and have implications for clinical practice in terms of engaging this population, empowering parents and providing effective, individualised interventions.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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