

LJMU Research Online

Marks, L

Playing to Learn: an overview of the Montessori Approach with pre-school children with Autism Spectrum Condition

http://researchonline.ljmu.ac.uk/id/eprint/8763/

Article

Citation (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Marks, L (2017) Playing to Learn: an overview of the Montessori Approach with pre-school children with Autism Spectrum Condition. Support for Learning, 31 (4). pp. 313-328. ISSN 0268-2141

LJMU has developed LJMU Research Online for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

For more information please contact researchonline@ljmu.ac.uk

Playing to Learn: An Overview of the Montessori Ethos and how it impacts upon the overall development of pre-school children with Autism Spectrum Disorder

Laura Marks

<u>Abstract</u>

This paper examines the literature concerning the effectiveness of the

Montessori educational ethos for children with ASD within a British context.

Firstly, there is a discussion around the ideology of inclusion and how it has

impacted upon the mainstream education system. Secondly, various

models of disability are identified in order to highlight how they have

influenced societal attitudes towards people with disabilities. Thirdly, there

is a brief history of ASD detailing how a child with this disability may be

affected on a daily basis. Finally, the effectiveness of alternative play-based

educational ethos's such as Montessori are discussed, and how such play-

based curriculums can support and ultimately benefit a child with ASD and

their learning. The summary highlights that there is a need for more

research on this area within the UK.

Key Words: Early Years, Montessori, ASD

1

Historical overview of Special Educational Needs

The history of Special Educational Needs can be traced back to 1844 with the passing of an Education Act. This gave limited powers to central government to form school districts, thus removing the complete control the upper class (landowners, farmers etc.) once had. Education during this period was typically viewed as a means of social control (Morris, 1983), which produced well-behaved members of the local community. This in turn meant that individuals were equipped with morals, manners and thoughts to become a submissive, obedient, and inferior member of society.

It was not only the poorest children within society who were viewed in this way. Children with Special Educational Needs (SEN) were also viewed as such, until a series of reports were published that examined the perceived academic abilities of SEN children (Heward & Lloyd-Smith, 1990). Two of the most influential reports were published by the Egerton Commission and the Newcastle commission. The latter was significantly involved with the passing of the Education (Mentally Handicapped Children) Act 1970.

It has been several years since the Warnock Report (1978) was published. This was seen as the cornerstone to legislation being passed, enabling children with disabilities to be educated alongside their non-disabled peers in mainstream settings. The report makes reference to three types of integration locational, social and functional. Functional integration is seen as the most important, yet challenging form of integration. Whilst it allowed children with SEN to undertake activities alongside their non-disabled peers, it also involved a great deal of planning by teachers and other educational professionals. As such the ideology of inclusion became very important when providing a suitable education for these children. This

subsequently had a direct impact upon the Education Act (1988) and the Education Act (1993). Schools were now obliged to implement the SEN Code of Practice. As a result, a single member of staff was appointed to ensure the smooth transition of disabled children through their educational career.

Moreover, children with a statement of special needs were not only entitled to special provision, they also had a right to be included in mainstream schools as long as they did not have a detrimental effect on the learning of others (Warnock & Norwich, 2010). Despite the admirable aims of the 1978 report, in 2005, Warnock's views on the inclusion of children with SEN and disabilities changed considerably, describing the introduction of statements of special need as 'disastrous' and 'the greatest obstacle to good provision' (Shaw, 2003).

A further consequence of the inclusive ideology is the closure of special schools. As a direct result, children with SEN were transferred to highly competitive mainstream environments, in which they were expected to perform at the same level as their non-disabled peers, requiring large teams of support staff (Tomlinson, 2012). Despite Warnock's change of opinion (Shaw, 2003), over the years, Labour, the Coalition and more recently the Conservatives, have instituted policy changes which have, again, had a direct impact upon the way in which children with SEN are taught within mainstream schools.

The reforms began during Tony Blair's campaign to become Prime Minister where he set out his priorities as 'education, education, education' (Blair, 1996). The most recent reforms took place in 2010 when the then Coalition government replaced the two Disability Discrimination Acts (DDA 1995,

2005) and the Special Educational Needs and Disability Act (SENDA, 2001) with one all-encompassing Equality Act (2010).

The Equality Act (2010) led to the publication of a new SEN Code of Practice (2014) which superseded its predecessor by the then Labour government. On the positive side the age range was extended from 0-18 to 0-25, thus allowing for increased communication and collaboration between education, health and social care services. However, on the negative side, prior to 2014, if a child with SEN attended a mainstream school their education was funded by the Dedicated Schools Grant (DSG). Following the introduction of the new SEN reforms the amount of money that schools were able to access via this funding stream was significantly reduced (Gray et al, 2012).

Shortly after coming to power, the Coalition government updated what they perceived to be an outdated form of assessment. The statement of SEN and Learning Disability Assessments (LDA) were replaced by Education, Health and Care Plans (EHCPs) (Department for Education 2011). Whilst still maintaining a strong focus on educational attainment, the new document has a greater emphasis, on what is sometimes, the difficult transition period between adolescence and adulthood.

Societal Attitudes to Disability

It is not just the education system that has been transformed, it is also societal attitudes. This was due to the different models of disability and how these have impacted on individual attitudes towards disability. The first and most outdated model is the medical model of disability. This model is seen by many as an offshoot of the disease model, hence the reason for why disability is viewed as a psychological impairment or disease process

needing medical treatment. It also focuses on individual pathology and attempts to find ways of preventing, curing, and caring for those with disabilities (Llewellyn & Hogan 2000). However, some authors have criticised this model as it does not assess the potential for improvement (Marks, 1997). Consequently, it is no surprise that the terminology utilised by the medical profession, and more importantly those outside the medical profession, was often offensive and derogatory implying that disabled people were weak, pathetic and in need of sympathy.

Thankfully, societal attitudes towards disability have changed for the better and this is due to the medical model of disability being superseded by the social model. In contrast to the medical model, the social model has been effective in promoting the social mobility of individuals with disabilities, as well as successfully improving their self-esteem, which in turn allows them to build a collective sense of identity (Shakesphere, 2010).

As with the medical model, the social also has negative elements. It neglects the impact impairment can have on the daily lives of individuals with disabilities. It also assumes that disabled people are oppressed, as well as highlighting the crude distinction between impairment, disability, and the concept of a utopian barrier-free society. Others such as Oliver (cited in Allan, 2012) have also expressed their disappointment that this model of disability has been ineffective in changing the material circumstances, or promoting the inclusion of people with disabilities. He continues, 'the social model was developed to counteract the formidable tragedy discourse that surrounds disabled and therefore depicts disability as deficit, a tragedy, abnormal and something to be avoided at all costs' (p.77)

Whilst the medical and social models of disability are frequently discussed within the disability studies literature, more recently, another model has emerged known as the capability model. This model was originally formulated to assess people's wellbeing and quality of life (Toboso, 2011) and provides further insight into how disability is viewed by society. It purports that impairment and disability are aspects of human diversity, thus shifting the focus away from the specificities of a disabling situation and examining how to establish equality in terms of possibilities and choices (Bakhishi &Trani, 2006).

Over the years, many models of disability have been proposed, each having influenced the attitudes people have towards disability. However, despite attitudes somewhat improving, stigmatisation and labelling still exists. In fact, over a third (36%) of people tend to think of the disabled as not as productive as others, and a quarter (24%) of disabled people have experienced attitudes in which people expected less of them as a direct result of their disability (Aiden &McCarthy, 2014). People with disabilities seem to be treated this way due to the diverse nature of disability. Further, it is not just people with disabilities who experience stigma, people who are diagnosed with mental health difficulties also encounter negative attitudes (Wright et al, 2011).

Stigmatisation and labelling are closely linked. In terms of disability, labels are often viewed by the relatives of individuals with disabilities positively, as it can help both parties to cope with, and understand their condition as well as recognise their strengths and weaknesses (Ho, 2004). A label can also go some way towards absolving the guilt that a parent experiences when they have a child with a disability. From an educational point of view, they are often necessary for a child or young person with a disability to receive

the support they need when striving to achieve their full potential (Broomhead, 2013).

Although labels are needed for support purposes within education, they can also have an adverse effect. At present, there appears to be a "one size fits all" approach within the education system which allows both teachers and support staff to have a negative attitude towards children with disabilities. These attitudes seem to develop through concerns that children with disabilities will have a detrimental effect, not only on the learning process of other children, but also on their performance as educators, and consequently the overall performance of the school i.e. league table position. Furthermore, it appears that having a disability does not only affect teachers and support staff, it also affects the other children's attitudes, thus making it difficult for children with disabilities to form meaningful friendships/relationships (Glazzard, 2011).

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) was first discovered over 60 years ago by Kanner (cited in Wing & Gould, 1979) in 1943, however there is still no known cause. He first detailed the symptom profile when he took l'enfant sauvage and realised that the child became fixated on particular objects, and had difficulty expressing themselves verbally and interacting with others. The symptom profile is more commonly known as the 'triad of impairments' (Wolff, 2004). However, the way in which this condition is diagnosed has changed in recent years due to subtle changes between the Diagnostic and Statistical Manual (DSM IV) and DSM V (APA, 2000; 2013). Children and adults with this condition display the deficits that are described within the 'triad of impairments', however, these symptoms will

affect each child differently. Following the introduction of DSM V, it is now a lot harder for parents who suspect that their child has this disability to obtain a clinical diagnosis. This is due to the symptom profile being narrowed considerably which means it has become more difficult for parents to access the support their child may need when trying to achieve their full potential.

Concerns were also raised prior to the current DSM's publication. Although a child was given an overall diagnosis of Autism Spectrum Disorder, they usually had a specific condition that was on the spectrum i.e. Asperger's syndrome. This determined the severity of their diagnosis (Kent *et al*, 2013). The present DSM however, omits certain conditions that were on the spectrum previously which have been replaced by new conditions and the incorporation of two conditions under one umbrella i.e. Asperger's combined with Autism Spectrum Disorder (APA, 2013)

The Importance of Play, the Montessori ethos and Autism Spectrum Disorder

ASD not only affects the teaching and learning methods of educators within schools, it can also have the same effect within nurseries. If parents choose to send their disabled child to a mainstream state-funded nursery, they are putting their child at an immediate disadvantage, especially if they have been diagnosed with ASD. This is because the child is unlikely to reach the same level as their non-disabled peers, but this will depend on the child and the severity of their symptoms. The majority of children are diagnosed with ASD between the ages of three to four (Siegal *et al*, 1988), although

more recent studies have shown that parents tend to notice symptoms as early as 18 months (Tuchman, 2009).

Prior to a child's formal education, children under the age of four attend a nursery setting where they acquire basic skills in physical, social and emotional development. However, the historical background of the importance of play in early childhood can be traced back to medieval times. During this time, childhood existed in the context of other relationships. Authors such as Hanawalt (1995) believed that adults took responsibility for their children even though there was no church or civil law that expected them to do so. It was also around this time that the community started to play a more significant role in terms of *in loco parentis* when the child was older.

Over the years, philosophers such as Plato have also written extensively regarding the importance of play in relation to childhood and education. He believed that education should begin early due to the importance of initial impressions. However, whilst Plato believed that play is important within the early years, he also believed that the type of play young children engaged in should be done freely, and have structure and purpose (Livescu, 2003).

In the 21st century, there has been a conscious move away from the historical attitudes and theories of play with the re-emergence of two further narratives: liberal romanticism and psychological cognitive development. Whilst it is said that these two narratives do not reflect historical attitudes towards play, it may appear to those outside the early education field that this is not the case (Rogers & Lapping, 2012). Liberal romanticism seems to reflect the medieval views of childhood in that, to this day, play is still associated with innocence as well as being natural and innate. However,

there were also those who believed that play was not valuable or indeed a topic for serious debate (Smith, 2012).

One of the most prominent scholars during this time was Rousseau (cited in, Cohen, 2006). He believed that children should be able to roam freely through natural environments in order to broaden the child's imagination. This would then inspire their love for freedom and encourage them undertake some form of physical exercise to explore the limitations of their body. Whilst Rousseau (cited in Cohen, 2006) sees the benefits of early years education, like his liberal romantic counterparts, he believed that engaging in a formal education system at such a young age potentially took away a child's innocence.

In the 21st century, authors such as Ginsburg (2007) and Wood (2010) believe that play is of central importance to a child's overall development. Furthermore, Wood (2010) concurs and believes play is essential to curriculum development, as children develop their own personalities and learn the key traits that are needed to interact with their peers on different tasks. These traits include humour, teasing, jokes, mimicry, riddles and rhymes, singing and chanting, for example. It is also crucial that children learn to deal with disagreements, to cooperate with others, and to understand competition (Tannock, 2008).

Whilst the planning of daily activities should be based on the Early Years Foundation Stage (EYFS) (Department for Education, 2014), the actual teaching practices that are employed by early years professionals should primarily be based on a mixture of direct instruction and Plato's philosophy of free play. Despite the fact that free play is very much part of the EYFS, in recent years international studies have shown that children between the

ages of 0-4 years now spend an increasing amount of time undertaking academic tests (Nicolopoulou, 2010). Many children within this age bracket struggle to achieve what is expected of them as they are developmentally inappropriate. As a consequence, early years professionals have undermined the primary tool utilised by all young children to combat stress, that of freely-chosen, child centred, intrinsically motivated play.

There are other educational ethos's which are more focused on the importance of play, and how they can enhance the learning opportunities of all children including those with disabilities such as ASD. One such ethos is that of Maria Montessori (cited in O'Donnell, 2007) who on completing her medical degree, continued her training at a child psychiatric unit where many of the children had been diagnosed with a variety of learning disabilities. Unlike her more qualified colleagues, after observing these children over a period of time, she realised that they also had the capacity to learn. Montessori (cited in O'Donnell, 2007) began to make her own learning resources which she let the children use whilst at the unit. The resources that she designed were so successful, she decided to test her theory that the children could achieve the same, if not better results, than their non-disabled counterparts. She decided to enter the children in the national tests that were undertaken by non-disabled peers in her country of origin Italy.

As she predicted the children performed as well, if not better, than their non-disabled peers. As a result, Montessori (cited in O'Donnell, 2013) decided to set up her own preschool where the teaching methods were underpinned by the evidence she had gathered during her experiments. She opened the first Casa di Bambini (Children's House) in 1907 within the slums of Rome. From her initial research, Montessori (cited in O'Donnell,

2013) also realised that like their non-disabled counterparts, children with disabilities were capable of independence. As well as designing and making her own teaching resources, she also constructed the whole classroom environment in such a way that children could realise this independence. This involved furniture that was the right size and weight so that the children could change their environment as they wished. Montessori (cited in O'Donnell, 2013) also designed the more static classroom equipment such as shelving and pegs to hang coats on to further encourage independence.

Research on Montessori and ASD within the UK is limited. One of the few researchers to examine how the Montessori educational ethos is a more effective way of learning for children with ASD, and more generally with SEN, is Wendy Fidler (2006). In once such article, Fidler (2006) explains that autism is a condition that affects each child differently. One of the primary characteristics of all children with this condition is the need for routine. The Montessori educational ethos provides this via the traditional teaching and learning methods, specifically the activities the children engage in on a daily basis. Whilst the Montessori teaching and learning methods are beneficial to children with ASD, staff who utilise such methods need to be aware that some of the materials recommended for use by Montessori practitioners, may not be suitable for use with children with this condition. Therefore it may be more appropriate to source a range of alternatives e.g. silk as opposed to nylon, as many children with ASD have hypersensitive skin and therefore cannot tolerate certain materials against their skin.

In terms of the development of language, the materials that are used by Montessori practitioners are ideal for use with children diagnosed with ASD.

The practitioner can write an instruction on a command card, read the instruction to the child, and then demonstrate the correct way to complete the task (Fidler, 2004). In so doing, young children with ASD can learn the nuances of social interaction by observing non-disabled peers who use appropriate actions to demonstrate and express what they understand by the words on the cards. Another advantage of Montessori education for children with ASD, is that all settings have rules which children and staff must adhere to, thus creating the structure and routines that complement children with ASD (Marshall, 2001; Fidler, 2006).

Concluding Comments

The intention of this article has been to examine whether or not the Montessori educational ethos could be more appropriate in assisting children with ASD to learn. Whilst the evidence cited in this article is relatively outdated, it nevertheless suggests that the Montessori educational ethos is a suitable alternative. Indeed, numerous studies have examined the effectiveness of the Montessori ethos in supporting children with ASD, however, the majority of these are international, and therefore not generalisable to the UK. In conclusion, it is clear that further research is needed in order to investigate whether the Montessori educational ethos is more appropriate educational ideology for children with ASD in the UK.

References

AIDEN, H. and MCCARTHY, A. (2014) *Current Attitudes Towards Disabled People* Scope: About Disability.

Online at:

http://www.scope.org.uk/scope/media/images/publication%20directory/curr ent-attitudes-towards-disabled-people.pdf?ext=.pdf

ALLAN, J. (2012) The sociology of disability and the struggle for inclusive education

In: Arnot, M. (ed) *The Sociology of Disability and Inclusive Education: A Tribute to Len Barton* pp.75-92 Oxon: Routledge

AMERICAN PSYCHIATRIC ASSOCIATION (2000) *Diagnostic and Statistical Manual of Mental Disorders* 4th ed text revised version. Washington: American Psychiatric Association

AMERICAN PSYCHIATRIC ASSOCIATION (2013) *Diagnostic and*Statistical Manual of Mental Disorders 5th ed Washington: American Psychiatric Association

BAKHISHI P. AND TRANI, J.F. (2006) The Capability Approach to Understanding Disability: Increasing Comparability, Defining Efficient Programs.

In: Reboud, V. *Capabilities and Public Policies* pp. 1-14. Paris: French Agency for Development.

BLAIR, T. (1996) Speech Given at Ruskin College, Oxford. 16th December. Election Campaign.

Online at: http://www.leeds.ac.uk/educol/documents/00000084.htm

BROOMHEAD, K. (2013) Blame, guilt and the need for 'labels'; insights from parents of children with special educational needs and educational practitioners *British Journal of Special Education* 40, 1,14-21

COHEN, D. (2006) The Development of Play 3rd ed. East Sussex:
Routledge

DEPARTMENT FOR EDUCATION (2011) Support and aspiration: A new approach to special educational needs and disability London: HMSO Online at:

https://www.gov.uk/government/publications/support-and-aspiration-a-new-approach-to-special-educational-needs-and-disability-consultation

DEPARTMENT FOR EDUCATION (2014) Statutory framework for the early years foundation stage: Setting the standards for learning, development and care for children from birth to five London: HMSO

Online at: https://www.gov.uk/government/publications/early-years-foundation-stage-framework--2

DEPARTMENT FOR EDUCATION AND SCIENCE (1978) Committee of

Enquiry into the Education of Handicapped Children and Young People.

London: Department for Education and Science

DISABILITY DISCRIMINATION ACT 1995 (1995) Chapter 50 HMSO

Online at: http://www.legislation.gov.uk/ukpga/1995/50/contents

DISABILITY DISCRIMINATION ACT 2005 (2005) Chapter 13 HMSO

Online at: http://www.legislation.gov.uk/ukpga/2005/13/contents

EDUCATION (HANDICAPPED CHILDREN) ACT 1970 (1970) Chapter 52,

HMSO

Online at: http://www.legislation.gov.uk/ukpga/1970/52/enacted

EDUCATION REFORM ACT 1988 (1988) Chapter 40, HMSO

Online at: http://www.legislation.gov.uk/ukpga/1988/40/introduction

EDUCATION ACT 1993 (1993) Chapter 35, HMSO

Online at:

http://www.legislation.gov.uk/ukpga/1993/35/pdfs/ukpga_19930035_en.pdf

EQUALITY ACT 2010 (2010) Chapter 15, HMSO 2010

Available at:

http://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga_20100015_en.pdf

FIDLER, W. (2006) Rules, Routines and Reasons: The 3Rs of Autism Montessori International Magazine July-September 36-37 FIDLER, W. (2004) The Autistic Spectrum *Montessori International Magazine* April-June 24-28

GRAY, P., NORWICH, B., STOBBS, P. AND HODGSON, S. (2012) "The Coalition Government's SEN Policy: aspirations and challenges [online], *Policy Paper* Special Educational Needs (SEN) Policy Research Forum Online at: http://www.sen-policyforum.org.uk/page.php?id=171

GINSBURG, K.R. (2007) The Importance of Play in Promoting Healthy
Child Development and Maintaining Strong Parent-Child Bonds *Pediatrics*182-191

GLAZZARD, J. (2011) Perceptions of the barriers to effective inclusion in one primary school: voices of teachers and teaching assistants *Support for Learning* 26,

2, 56-63

HANAWALT, B.A. (1995) Narratives of a Nurturing Culture: Parents and Neighbors in Medieval England Essays in Medieval Studies 12,

HARPUR, P. (2012) From disability to ability: changing the phrasing of the debate *Disability & Society* 27, 3, 325-337

HEWARD, C. and LLOYD-SMITH, M. (1990) Assessing the impact of legislation on special education policy - An historical analysis. *Journal of Education Policy* 5, 1, 21-36

HO, A. (2004) To be labelled, or not to be labelled: that is the question British Journal of Learning Disabilities 32, 2, 86-92 KENT, R.G., CARRINGTON, S.J., LE COUTEUR, A., GOULD, J., WING, L., MALJAARS, J., NOENS, I., VAN BERCKELAER-OJNNES, I. AND LEEKAM, S.R. (2013) Diagnosing Autism Spectrum Disorder: who will get a DSM-5 diagnosis? *Journal of Child Psychology and Psychiatry* 54, 11, 1242-1250

LIVESCU, S. (2003) From Plato to Derrida and Theories of Play CLCWeb: Comparative Literature and Culture 5 (4)

LLEWELLYN, A. AND HOGAN, K. (2000) The Use and Abuse of Models of Disability. *Disability & Society* 15, 1, 157-165

MARKS, D. (1997) Models of Disability *Disability and Rehabilitation* 19, 3, 85-91

MARSHALL, C. (2001) Autism and Montessori *Montessori International Magazine* October-December 16-17

MORRIS R.J. (1983) Voluntary Societies and British Urban Elites, 1780–1850: An Analysis. *The Historical Journal* 26, 1, 95-118

NICOLOPOULOU, A. (2010) The Alarming Disappearance of Play from Early Childhood Education *Human Development* 53, 1, 1-4

O'DONNELL, M. (2007) Maria Montessori London: Continuum International Publishing Group

O'DONNELL, M. (2013) Maria Montessori: A Critical Introduction to Key
Themes and Debates London: Continuum International Publishing Group

REINDAL, S.M. (2010) What is the purpose? Reflections on inclusion and special education from a capability perspective online *European Journal of Special Needs Education* 25, 1, 1-12

ROGERS, S. AND LAPPING, C. (2012) Recontextualising 'Play' in Early Years Pedagogy: Competence, Performance and Excess in Policy and Practice British *Journal of Educational Studies* 60, 3, 243-260

SHAKESPEARE, T. (2010) The Social Model of Disability
In: Davis, L.J. (ed) The Disability Studies Reader 3rd ed pp. 266-273.
London: Routledge.

SHAW, M. (2003) Warnock calls for rethink. *TES Newspaper* [online], 11th May 2008

Online at: http://www.tes.co.uk/article.aspx?storycode=384105

SIEGEL, B., PLINER, C., ESCHLER, J., & ELLIOT, G. R. (1988) How children with autism are diagnosed: Difficulties in identification of children with multiple develop-mental delays *Developmental and Behavioral Pediatrics*, 9, 199–204.

SMITH, K. (2012) Producing governable subjects: Images of childhood old and new *Childhood* 19, 1, 24-37

SPECIAL EDUCATIONAL NEEDS AND DISABILITY ACT 2001 (2001)
Chapter 10, HMSO

Online at: http://www.legislation.gov.uk/ukpga/2001/10/contents

TANNOCK, M.T. (2008) Rough and Tumble Play: An Investigation of the Perceptions of Educators and Young Children. *Early Childhood Education Journal* 35, 4, 357-361

TOBOSO, M. (2011) Rethinking disability in Amartya Sen's approach: ICT and equality of opportunity *Ethics and Information Technology* 13, 2, 107-118

TOMLINSON, S. (2012) The irresistible rise of the SEN industry *Oxford Review of Education* 38, 3, 267-286

TUCHMAN, R., MOSHÉ, S.L. AND RAPIN, I. (2009) Convulsing toward the pathophysiology of autism *Brain and Development* 31, 2, 95-103

WING, L. and GOULD, J. (1979) Severe impairments of social interaction and associated abnormalities in children: epidemiology and classification. *Journal of Autism and Developmental Disorders* 9, 1, 11-29

WOLFF, S. (2004) The history of autism *European Child & Adolescent*Psychiatry 13, 4, 201-208

WOOD E. (2010) Developing Integrated Pedagogical Approaches to Play and Learning pp.9-27 In: Broadhead, P., Howard, J. and Wood, E. (eds)

Play and Learning in the Early Years: From Research to Practice London: Sage

WRIGHT, A., JORM, A.F. AND MACKINNON, A.J. (2011) Labeling of mental disorders and stigma in young people *Social Science and Medicine* 73, 4, 498-506