Montessori from a therapeutic perspective:
Exploratory play for children with ADHD

Dr Fabiola Honorio Neto & Saragh Ward
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Introduction to the speakers

Dr Fabiola Neto

PhD degree in Psychology in University College Dublin, in the Department of Child and Adolescent Psychiatry in the UCD School of Medicine in collaboration with UCD School of Psychology. Her PhD thesis was a qualitative investigation of the perspectives of children, clinicians and parents on the key challenges facing young people with ADHD in the school context in Ireland and Brazil.

Saragh Ward

Master’s degree in Special Education in Trinity College Dublin. Trained General Nurse and Registered Nurse specialising in Intellectual Disability. Worked with adults in the early stages of her career and moved to an Early Intervention team supporting young children and their families.

https://www.ucd.ie/medicine/ourresearch/researchgroups/capsych/
OUR PLAN and goals

a) To investigate the application of the Montessori philosophy of playful learning in a clinical therapeutic setting for children with ADHD.

b) To investigate whether the Montessori philosophical approach supports the learning needs of children with ADHD inside and outside the classroom.

c) To empower teachers to become more aware of how Montessori playful learning can support their work with children with ADHD in the classroom.

d) To build a community of practice between clinicians and Montessori teachers in order to improve the educational and social outcomes of children with ADHD.
What is ADHD?

- Carelessness
- Acting without thinking
- Easily distracted
- Forgetfulness
- Constantly fidgeting
- Excessive talking and moving
- Lot of energy
- Creative
- Gift
- Enjoyable to work with
- Persuasive power
- Have fun with
What is ADHD?

ADHD is a dimensional disorder, that is, it is divided into (Marcus & Barry, 2011; Santos & Freitas, 2016):

- inattention,
- hyperactivity–impulsivity,
- combined dimension

Variations in the severity of symptoms and degrees of impairment (Frick & Nigg, 2012).

https://www.youtube.com/watch?v=IO6zq1m88s
ADHD Prevalence

- One of the most prevalent disorders in childhood, occurring in 5% to 7.2% of all children worldwide (Polanczyk, Willcutt, Salum, Kieling, & Rohde, 2014; Thomas, Sanders, Doust, Beller, & Glasziou, 2015).

- Highly variable rates across countries: ranging from as low as 1% to as high as nearly 20%.

- ADHD rates in kids have increased over the past 20 years.

- 1 in 5 high-school boys in America have an ADHD diagnosis (Faraone, Sergeant, Gillberg, & Biederman, 2003; Schwarz & Cohen, 2013).

- An American disorder?
- A male/boy disorder?
- Epidemic disorder?

What are the causes of ADHD behaviours?

Tatlow-Golden, 2016

http://www.open.ac.uk/people/mtg78
Irish teachers held negative attitudes about ADHD...

Tatlow-Golden, 2016

• Teachers
  - 30% An ADHD diagnosis is stigmatising for a child
  - 30% ADHD is caused by poor parenting
  - 26% Parents seek ADHD diagnosis as an excuse for their child's bad behaviour
  - 19% Parents primarily seek ADHD diagnosis for school/DARE accommodations
ADHD causes

Mix of NATURE AND NURTURE causes

• **Myths:**
  - Sugar *(although can exacerbate symptoms)*
  - TV or Video-games/ technology
  - Food additives *(although can exacerbate symptoms)*
  - Diet deficient in Omega-3 *(although can exacerbate symptoms)*
  - Parenting *(although can exacerbate symptoms)*

• **Some evidence of playing a role in ADHD:**
  - Brain dysfunction
  - Genes (strong heritability to ADHD)
  - Smoking and drinking during pregnancy
  - Environment (physical, social and psychological)
Children’s experience

Children with ADHD experience some **DIFFICULTY IN COMMUNICATING** what it is like living with ADHD to those they experience as “**OUTSIDERS**” in their worlds (Carr-Fanning, Guckin, & Shevlin, 2013; Singh et al., 2010).

ADHD is commonly perceived by children as **A SCHOOL DISORDER** (Singh, 2012), so that children want to “do better” at school, that is, the children’s lack of academic and social self-efficacy is the aspect of their life with ADHD about which they are most concerned (Brinkman et al., 2012; Singh, 2011, 2012).

According to Kaidar et al. (2003) and Singh (2012), children with ADHD reported putting themselves in an imaginary place and state of **“DAYDREAMING”** to **escape from situations and environments at school or home experienced as aggressive and frustrating**.

A child with ADHD may feel that his or her impulsiveness, hyperactivity, and/or aggressive behaviour bother people and **damage every relationship**, so that **NOBODY LIKES HIM OR HER** (Harpin, 2005; Salomonsson, 2017). Harpin (2005; 2013)
"Tug of war" as a representation of the core category: balancing power by compelling

Children with ADHD were constantly balancing power within themselves and between their relationships to resolve their difficulties at school.

"Teeter totter"/ "see-saw" as a representation of the core category: balancing power by empowering

Children’s experience: Neto’s results (2018)
Neto’s (2018) MAIN FINDINGS

• The main concerns of children with ADHD were about school performance and being able to play with their peer group at school.

• Children perceived that school and CAMHS spaces intersected, so a positive care relationship at the ADHD clinic was transferred to school. There is an inseparability of “healthcare” and “education” for children with ADHD.

• Art and play were found to have a healing and learning power for children with ADHD. Schools and CAMHS should creatively deliver their educational and health services in a playful and entertaining space for children with ADHD.

• Children were aggressively resisting a misfit in the school environment. There are academic demands forcing children to perform according to strict school parameters, where, for example, mathematics and language are usually more valued than the development of relationships with their peers.
The child with ADHD mediates 3 different types of knowledge: maternal, medical, and school, in order to develop his or her academic and social success.

A child with ADHD eventually becomes powerless, as the child is placed amid the competing forces of knowledge between doctors, parents, and school personnel.

This situation imposes the need for a balance of forces to empower the genuine needs of children with ADHD against compelling forces. If child’s voice is not listened to, the child with ADHD may suffer and then react aggressively to impose his or her voice.

Children with ADHD want to play and create strong bonds with “special” people. Play with the clinician is positively experienced as good care according to children.

“I like to play with the guy of ‘the pill’, whom I tickle, and he tickles me. And sometimes, when I’m in front of him, at his office, we play with war toys”
Children’s experience: Neto’s (2018) results

Researcher: “And do you know what she is? Is she a doctor or psychologist?
Child: I don’t know.
Researcher: But what does she do with you?
Child: She helps me. She plays with me”
Children’s experience: Neto’s (2018) results

- **Children interconnected their clinic and school**

Some children drew their therapy space in the child mental health service (CAMHS), which could be confused with a classroom, as per the drawing below. This child drew his group therapy room looking like a classroom. This child also called and identified the clinicians as teachers.

_Playing together_ empowered child’s voice, as it was linked with a _personal knowledge_ of the child. _Special_ ADHD clinic for these children was not connected with _specialism_, but with the opportunity to develop _special_ personal relationships. Children were saying that playing is therapeutic for them due to its social function and the consequences for their learning. _Special ADHD clinic_ was synonymous with a “_special school_”, with clinicians named as “_special teachers_”, by the children.
Clinicians’ experience

Clinicians express a conflicted attitude towards treatment of patients with ADHD:

- Children with ADHD are enjoyable to work with (have fun with children)
- Clinicians also feel these patients were a source of burnout and burden (scared to work in isolation, overcautious with side-effects of medication such as sleep and appetite problems)

http://www.adhdvoices.com/adhdvideos/doctors.shtml
“If they have only ADHD, I feel I can only give them a tablet and I don’t think that’s enough. Sometimes it is safe but they’d have to wait a long time, maybe a year or a year-and-a-half before a child psychiatrist sees them. I’ve treated some; they came in when they were a young age, maybe 6 to 7 years old. They couldn’t go to school and there were the major problems and the tablets make a big difference, then maybe for a short while I prescribe them, while I refer them to child psychiatry for the MULTIDISCIPLINARY SUPPORT that they will get at the end. I wouldn’t be long-term giving them medication for only ADHD because I think that’s a lot. I don’t have the team to support those people.”

(Irish Paediatrician)
Parents’ experience and views of ADHD: Mothering of a child with ADHD

• Parents may feel overwhelmed in caring for their child with ADHD, as they experience other family members refusing to share the care with them due to the bad behaviour of the child (Harpin, 2005).

• Mothers commonly report an experience of lack of support from their husband, i.e. the child’s father, as usually the couple does not share the same perspective on the child’s ADHD (Corcoran et al., 2017b; Hughes, 2007; Singh, 2005).

• Very often, fathers interpret ADHD as a typical male behaviour and reject the notion that the behaviour of their “boy” is associated with a disease (Singh, 2005).
Parents’ experience and views of ADHD: Neto’s (2018) results:

Heroic legendary mothering

“I realize that the mother is the bravest person and most willing and responsible to change the family.” (paediatrician)

• To solve the issues faced as a mother of a child with ADHD, the mother develops a **heroic legendary mothering**, which is characterized by the need **to fight and pursue important and influential people** to defend the child with ADHD, such as chasing people in high positions (either in the health or educational area) to resolve a problem the mother is experiencing with the care of her child.
Parents’ experience and views of ADHD: Neto’s (2018) results

Lack of supportive relationships?
Heroic legendary mothering

“I spoke to the manager in [CAMHS] and said no, how many times – first he was assigned to the doctor and he wanted to put him on medication, then I went back to the manager, asking him, please, please he [child] needs psychotherapy, and he [manager] says, ‘okay you’re on the waiting list, you have to wait 8 months’.”

“The chairperson and the principal are part of the board of management. So obviously, you understand that they have a lot of power in their hands, that’s why it went to the department of education, this is unfortunate. It’s not because the school is untouchable, there are still people who are full of prejudice.”
Parents’ experience and views of ADHD: Neto’s (2018) results

Heroic legendary mothering

- Playing a **heroic legendary mothering** role is a burden and requires many sacrifices.
- Mothers abandoned their work, careers, other passions, hobbies, and **SOCIAL LIFE** to dedicate themselves solely to seeking for and providing care for their child with ADHD.
Parent’s and children’s experience: The positive side of ADHD

- Parents (McIntyre & Hennessy, 2012)

- focus on their children’s strengths, NOT negative feelings alone about parenting a child with ADHD.

- very rewarding to see the achievements of their children with ADHD,

- the care for a child with ADHD as a “gift” not valued socially
Parent’s and children’s experience: The positive side of ADHD

• **Children** (McIntyre & Hennessy, 2012; Sciberras, Efron, & Iser, 2011; Singh, 2011; Singh et al., 2010)

- feel more creative,
- having a lot of energy,
- being “cool” and “fun” among their peers,
- and tending to care more about their friendships.

  *However, some researchers suggest that these positive feelings are a type of “illusory thinking” of children with ADHD (Hoza, 2007; Kaidar et al., 2003; Sciberras et al., 2011).*

- Children with ADHD also have persuasive power and influence in the relationship with their parents, through not passively accepting parental instructions and actively negotiating with their parents to achieve their own goals (Wong & Goh, 2014).
Your experience as a teacher

• In groups, share and outline your **positive and negative** feelings towards children with ADHD

• How do you balance your positive and negative feelings/ emotions when working in class with these children?

• How can parents be supported?
Your experience as a 

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<th>(-) NEGATIVE side</th>
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8. Teacher’s experience

• Tips for teachers:
  http://www.hadd.ie/education/teacher-tips
Montessori philosophical principles

Montessori pedagogy can be categorised as inclusive practice
Montessori philosophical principles

- Child-centred
- Child follows his/her own interest
- Individualised
- Balanced system: freedom of the self within a structured environment
- Reliable and playful relationship; trust the child
- Power of the self
Montessori philosophical principles

1898-1904 Dr Montessori works with “feebleminded” children at the University of Rome Psychiatric clinic and treats them using educational methods.

How can Montessori philosophy support the child with ADHD and his/her teacher? (based on your experience)
Human Tendencies according to Montessori

- Exploration
- Orientation
- Order
- Communication
- Abstraction
- Imagination
- Work
- Repetition
- Controlling the error & Control of Error
- Exactness
- Perfection
- Self Perfection
- Mathematical Mind
Is there a link between Montessori work and Neto’s work?

Can Montessori teachers support communication skills?

“Not only does it fuse men into groups and nations, but it is the central point of difference between the human species and all others.”

Montessori, 1949
Freedom of movement within the environment?

It follows that the child can only develop fully by means of experience on his environment. We call such experience “work”. No sooner does language appear than the child begins to chatter, and no one can persuade him to stop. One of the hardest things in the world is to make a small child keep silent. And if the child were prevented from walking and talking he would not develop normally. He would suffer an arrest in development. Instead he walks, runs, jumps and so develops his legs by use.

“The behaviour of every individual is a product of his environmental experience.” (Montessori, 1949)
Facilitates movement

Children love to sit upon the ground resting their weight upon the whole length of their crossed legs or upon the length of one leg placed to the side. This gives them a wider base of support. Since children have a natural need for a period of rest that breaks their continual movements, we have equipped the children’s houses with small rugs which are usually rolled up and kept in part of the room destined for this purpose. Children who wish to work on the floor instead of seated at a little table must first get one of the little carpets, spread it out on the floor, and then work upon it. No adult dictates the change of position and the child then peacefully follows the dictates of nature.

(Montessori, 1915)
Fostering creativity with children with ADHD

‘Creativity has become an educational priority in the twenty-first century’ (Wyse & Ferrari, 2015 cited in Robson, 2017).
The Montessori classroom has...

Self Correcting materials

Materials with a developmental goal but also allowing for experimentation

A belief that all children can succeed

Support and encouragement from peers and adults
Could Cosmic education support children with ADHD?

Cosmic education seeks to offer the young, at the appropriate sensitive period, the stimulation and help they need to develop their minds, their vision, and their creative power, whatever the level or range of their personal contributions may be.  

(Montessori, 1976)
Harnessing imagination

It is along this path of high realities, which can be grasped by imagination, that the child is led between the ages of six and twelve. Imaginative vision is quite different from mere perception of an object, for it has no limits. Not only can imagination travel through infinite time; we can go backwards through the epochs and have the vision of the earth as it was, with the creatures that inhabited it.

(Montessori, 1948)
Building self efficacy

“.... It is “application to work.” An interesting piece of work, freely chosen, which has the virtue of inducing concentration rather than fatigue, adds to the child’s energies and mental capacities, and leads him to self mastery.”

(Montessori, 1949,p. 188)
Encouraging socialisation

Montessori was one of the first to realize how important collective work is for mental development. Therefore, she strove to create optimal conditions for its realization in her schools. The exercises in practical life for the young children promote social contact both because of the nature of the task and because of the way in which they are organized in the classroom. It is a common sight to see little groups of two or more children who have voluntarily begun to do these exercise together. Collective work continues to be emphasized in Montessori education all through pre-primary and secondary education.

Montessori, M. M. Jr. (1976)
Virtual age ranges

• Activities/ play encourage peer interaction

• Promotes interaction between teacher – children and children - children
Meeting the needs of children with ADHD by using our observational skills

“There is only one basis for observation; the children must be free to express themselves and thus reveal those needs and attitudes which would otherwise remain hidden or repressed in an environment that did not permit them to act spontaneously. An observer obviously needs something to observe, and if he must be trained in order to be able to see and recognise objective truth, he must also have at his disposal children placed in such an environment that they can manifest their natural traits.”

( Montessori, 1915, p 48)
Have we got something to offer??

....the Montessori Teacher is constantly looking for a child who is not there yet.  
(Montessori, 1949, p.252)
Can Montessori teachers support academic and social self-efficacy skills?

“Knowledge and social experience must be acquired at one and the same time.”
(Montessori, 1948,p.13)
Work

*In order to be creative, we need to work at it, in order to manifest our reality.* And as in the words of Kahlil Gibran, “work is love made visible”. Usually when we work we are not satisfied with the first product, so we repeat the experiment and make adjustments and corrections until we are satisfied with the result. We call this repetition.
“Play is the work of the child.” Maria Montessori
Types of play (Lillard, 2013; 2003)

“Playful learning is, by definition, fun and enjoyable”
Constructivist, developmental approach and exploratory
Embeds freedom within structure and structure within freedom
Child as an active learner
Teacher balance guidance and freedom
Uses objects adapted to the development of children, making learning motivating and enjoyable
Continuum of play

Free Play

Guided Play
Montessori education falls within the green areas.

The Early Years Montessori Teacher organises time, space and activities in the correct combination, to best support children’s well-being, learning and to provide opportunities for exploration.
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<tr>
<th>Characteristics of play</th>
<th>Play</th>
<th>Montessori Classroom</th>
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<tr>
<td>Voluntary in nature</td>
<td>Choice and control is with the player</td>
<td>Spontaneous nature of Montessori classroom. Freedom to choose activity.</td>
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<td>Meaningful to the players</td>
<td>Reflects what children know. Uses ‘funds of knowledge’.</td>
<td>Montessori environment is based on children’s urge to build on previous knowledge.</td>
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<td>All materials build on previous discovery and learning.</td>
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<td>Low risk</td>
<td>Challenging but no real risk of failure</td>
<td>Non-competitive. Vertical age-grouping.</td>
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<td>In-built control of error in the materials for self-direction.</td>
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<td>Spontaneous</td>
<td>Spontaneous, creative, flexible, curious</td>
<td>Follows child’s interests. Emergent curriculum</td>
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<td>meaning, ideas, feelings</td>
<td>Adele Costa Gnochi – Pretend play materials in Italian Montessori Nido’s</td>
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<tr>
<td>Incorporates deep involvement and sustained</td>
<td>‘flow’, concentration, process rather than product.</td>
<td>Work with materials leads to increased concentration.</td>
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<td>concentration</td>
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<td>Absorbed by the work rather than distracted by it.</td>
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<td>Ability to concentrate sparks creativity.</td>
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<tr>
<td>Active</td>
<td>Physical and mental</td>
<td>All materials are ‘activity provoking’. Classroom and all materials and activities ‘belong’ to the children.</td>
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<tr>
<td>Sociable</td>
<td>Choice to play alongside, co-operate or play alone</td>
<td>Values individual and the group.</td>
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Montessori philosophical principles validated by Neto’s research (2018)

- Child-centred
- Child follows his/ her own interest
- Individualised
- Balanced system: freedom of the self within a structured environment
- Reliable and playful relationship; trust the child (e.g. when Montessori was playing with her grandchildren)
- Power of the self
Playful Learning in Montessori & the inclusion of children with ADHD

• The importance of play for learning is even more evident in children with special educational needs, such as ADHD, as these children may not enjoy performing an educational activity if they perceive it as an obligation and not as fun and entertaining (Guía, Lozano, & Penichet, 2015).

• When an appropriate educational curriculum is designed to match the specific abilities and learning differences of students, “learning difference does not become a learning disability” (Pickering, 2003, p. 13).

• This happens in the Montessori playful learning (Lillard, 2013), which consists of individualized student-centered learning with the use of multisensory materials prepared to support hands-on exploration by each child.

• It means that there is a type of learning/ playing associated to Montessori education Montessori Philosophy is beneficial to the functional impairments in reading and numerical reasoning of children with ADHD, dyslexia and other neurodevelopmental related disorders (American Psychiatric Association, 2013; Pickering, 2003).

• Playful learning, from the perspective of Montessori education, is implicitly inclusive method.
Playful Learning in Montessori & the inclusion of children with ADHD

• It is necessary, however, to question what types of play enhance the social, emotional and cognitive development of children and therefore the inclusion of children with learning difficulties.

• Whether it is enough that children play and have fun in order to learn and promote inclusion in the school as children are naturally capable of playing (Ariès, 1996).

• The positive playful learning of Montessori is a constructivist and developmental approach (child-centered) and it is exploratory in nature (Lillard, 2013). Montessori view of play is related to the type of play that children with ADHD reported in the PhD thesis (Neto, 2018).
Exercise - CASE STUDY:

How would you support the educational needs of each child 1, 2, and 3 in your classroom based on the communication of their feeling in the drawings.
• Do you think we have identified meaningful links that are worthy of further research?
• Would you be willing to participate in a study to investigate if Montessori pedagogy can support children with ADHD?
We would love to hear from you

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Thank you!