Special Education as an Alternative Treatment Method for Patients with Autism/Asperger Syndrome within Forensic Psychiatry

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This description of an educational approach for forensic psychiatric patients with childhood neuropsychiatric disorders can be seen as a general survey of how educational methods can be used in this context. A more extensive description of special education for adults with these conditions can be found in my thesis, “From Observation to Special Educational Design: Education meets Psychiatry.” It describes how one can combine an individual “educational diagnosis” with educational methods (in Swedish).

It was not until the 1990s that the group of disorders described as being childhood neuropsychiatric in nature began to be regarded as a concern for adult psychiatry. That patients did not “out grow” these conditions but had symptoms to a greater or lesser extent into adulthood has become increasingly apparent. It has also been shown that the associated difficulties can actually worsen over time as the demands for personal independence and responsibility-taking increase. Behaviours that could be accepted or excused in childhood become obvious problems in the young adult. This can result in social exclusion, difficulties in managing independent living, work, home and relationships. The increased demands on a person with a low stress threshold can be so great that they result in a state of confusion and even psychosis. For some, the pressures of an incomprehensible world can lead to impulsive actions, violence and crime, which in turn lead to forensic psychiatric care.

The ongoing research of Leila Siponmaa, Marianne Kristiansson and Christopher Gillberg (Nordic Conference of Research on Autism/Asperger Syndrome, 1999) has found that a considerable number of the young adult patients in forensic psychiatric care who participated in their study had one of the childhood neuropsychiatric disorders.

Even if we are becoming better at recognizing and diagnosing autism spectrum disorders in adults, there is no treatment method in adult psychiatry that is designed specifically for this group. A psychiatric diagnosis does not automatically stipulate the type of treatment that is needed. The intervention methods that up till now have proven to be effective in dealing with autism are those based on an educational approach.

My own experiences from working in special education with autistic adults is the basis for the testing of an educational concept at eight psychiatric units in three regions of Sweden. Five of the clinics have forensic psychiatric patients. The concept that has been tested and that will be presented in a doctoral thesis is called “Individual Educational Design”. It is based on an Educational Diagnosis that is derived from observations in the areas of:

- Perception/Reactions
- Sensory Modality
- Memory/Thinking/Verbal Communication
- Contact/Non-verbal Communication
- Motor Behaviour
Educational design is based on a combination of:

- Educational diagnosis
- Educational methods
- Educational content

**Educational Diagnosis**

**Perception/Reactions**

It is common that people with autism have disturbances in perception and it is important from a treatment point of view to evaluate perception.

Here is an example of how distorted perception can be expressed: Difficulties in making eye contact or over sensitivity to light is misinterpreted as a paranoid reaction. A person who always puts his arms up in front of his face when he meets others can give the impression that he is afraid of radiation or other kinds of influence from people, while in reality he can have developed a strategy for avoiding eye contact and then made the gesture into a compulsive ritual.

People who are tactively defensive do not willingly sit with others and usually try to be first or last in a queue to avoid contact. There are also people who absolutely cannot tolerate being touched by others, especially if it comes unexpectedly. A friendly hand on the shoulder can trigger a reflexive action such as kicking or punching. If others are not aware that these kinds of perceptual distortions exist, they may think the inappropriate behaviours are voluntary and an expression of aggressiveness.

Reactions to one’s surroundings and the speed at which a person moves from impulse to action are also crucial in devising educational strategies and deciding which methods can be used. They have to be completely different for a person with immediate, reflexive reactions than for someone who has delayed reactions that require extra time to process.

**Sensory Modality**

Information comes into our consciousness through our senses – auditorily, visually or tactily. The sensory channel through which we learn best and remember information is not always the auditory, by means of spoken language. If the person in question has short-term memory problems, he or she needs to find ways of storing information so that all of its parts are accessible for processing thought and solving problems. This means that people who have visual memory difficulties also need memory aids. Printed and accessible daily schedules are examples of such. Drawings and short stories that explain difficult situations can be of help for many of these people.

In the case of autism spectrum disorders, common educational advice is that there always should be visual schedules and clarifications. There are many exceptions to this rule. One group, which could be called a subtype in the autism spectrum, is described as having NLD\(^1\) (Nonverbal Learning Disabilities or right-hemisphere dysfunction) and requires a different kind of treatment, in that these people are dependent on auditory information. Since they are very verbal, it is easy to overestimate their ability to understand language. They can have an extensive vocabulary and spout forth borrowed expression that they do not understand at all, just as they find it hard to understand what others mean. When you know that these

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\(^1\) Rourke, B. P. (ed), 1995, Syndrome of nonverbal learning disabilities: Neurodevelopmental manifestations, Guilford Press, New York
difficulties exist, you can get in the habit of asking for a clarification to be sure of how much of what has been said has been understood. You may have to reformulate and simplify your language a number of times before these patients know what is actually meant. Their way of processing information is based on details and they can get stuck on them in a roundabout way and go over them again and again without being able to ever get to the point.

Memory/Thinking/Verbal Communication

Memory problems and perceptual disturbances affect a person’s interpretation and experience of the world. This means that thinking and verbal communication are also affected by the person’s distorted interpretation of the world. If he has a concrete vocabulary in which everything is taken literally, and is unable to perceive unspoken messages, he can end up having repeated confrontations with his surroundings.

Example: A young man with several childhood neuropsychiatric diagnoses has become a troublesome patient on a unit for patients requiring a high level of care. Staff member report that he is aggressive and hits and they end up putting him in isolation, where he destroys everything in the room. They phase out all regular contact and all forms of activities during his first weeks on the unit. A large number of people take turns guarding him. A sense of hopelessness spreads through the unit, where the staff feel that they have done all they can and only want to send him some place else where they know how to “deal” with these conditions. The young man’s own explanation for the violence can be that the staff have “cleared their throats too much” or used words that he misunderstood. Most likely these words were meant as a good-natured attempt to make contact or as a joke that the patient did not get. Staff members probably could have dealt constructively with the violence by not punishing the patient right away by removing everything that gave him something with which to occupy his thoughts. By prohibiting him from participating in activities, he was left in a sort of mental vacuum filled with compulsive thoughts and actions or in total passivity, which only increased his behaviour problems. Instead of seeing an individual with perceptual disturbances with a distorted and very concrete way of thinking for whom special adjustments had to be made by those who interacted with him, all the blame was placed on him, as if he had consciously decided to act out and could have refrained from doing so by making an effort at self control. With such an interpretation of the problem, the situation had become a catch-22, impossible to get out of.

It is usually said the people with high functioning autism have a large memory capacity. They can also have an exceptional ability to learn facts by heart and to behave like little professors in astronomy at a young age or be specialists on antelopes of Africa or maps of the world. By remembering details or collecting factual information, they stand out as though they had a “good memory”. Demands greater than they can handle are often expected of them in other areas where their memory skills are considerably poorer. It can be much more difficult for them to place the details in the bigger picture and understand them in context. Remembering facts that can be repeated does not mean that one really has knowledge in the subject area. To have knowledge means that one is able to transform the information to new knowledge that can be generalised to other, similar situations.

If we are impressed by the “good” memory of these people, we can be totally misled. It is more productive to examine which functions of memory work well and which work poorly. Endel Tulving’s theoretical memory model divides memory functions as follows:

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• Procedural memory, which is non-cognitive. This is where we store motor actions, conditioned behaviours and simple associative chains of action.

• Perceptual memory. This is where shapes and structures are stored, such as the visual and auditory shapes of words. This memory enables us to categorize objects according to different characteristics.

• Semantic memory, which is cognitive and stores factual information.

• Episodic memory, which stores episodes that have been personally experienced. Poor episodic memory results in a fragmented self-image.

• Short-term memory, which stores information for a short time in order to interpret and compare it to other material in one’s memory.

**Contact/Non-verbal Communication**

Human contact presupposes an innate ability to “read” other people. Those who process information in great detail can have difficulties putting all the details together to make a whole, and so are unable to get a general impression of others. They find it difficult to interpret other’s feelings in social situations. In all social interaction there is a rhythm; an inability in getting a feel for and following this rhythm produces a sense that something is wrong in social situations. If you cannot interpret and respond to other’s feelings and find it difficult to understand other’s perspectives, it is not at all easy to be accepted socially. People with these social difficulties often have friends and spend time with others, but do not know what to do. It is the job of education to teach “people skills”, that is, a systematic educational method that takes up and describes why people spend time with each other, what one gains by adjusting to other people, what a conversation or discussion is base on, etc.

**Motor Behaviour**

All automatic movements are types of motor activity. Some people have considerably more difficulty with automatization than others. Motor coordination difficulties are expressed in clumsiness; the person has a hard time tying his shoes, spills a lot at the dinner table and has sloppy table manners. Gym class is hard to manage, as well as ball sports and many others. When these difficulties are present, there is a need for both educational and physical therapy measures. Physical restlessness and hyperactivity are motor activities, made up of stereotypical movements and difficulties in carrying out planned movements. The motor activity of the organs of speech can also be difficult to control. This means that a person may not be able to speak automatically. It can be hard to express oneself in an automatic flow of words or to say the words that are already thought out in one’s head.

**Individual Educational Design is based on a combination of:**

- Environmental adaptations
- Structure
- Habituation/conditioning
- Whole concept learning
- Insightful learning
- Social learning
- Imagination
- Educational content
Environmental adaptations for
- Disruptions in perception
- High degree of impulsivity
- Destructive behaviour

Environmental adaptations can involve
- Sound absorption measures
- Sparse furnishings and interior decoration
- Built-in, clearly defined limits
- Well defined areas of activity, so that it is clear what is to be done where
- People to set limits when internalised limitations are lacking

Why structure?
- Offers security, predictability
- Provides an overview
- Is a support for learning (but has no value of its own and should be modified or removed when its purpose is fulfilled)

Structured activities answer the questions
- What? (should I do?)
- Where? (should I do it?)
- Who? (should I do it with?)
- When? (should I start?)
- When? (should I stop?)
- What? (should I do next?)

Habituation/conditioning
- When impulsivity/destructiveness are present
- When a high level of compulsiveness exists which is bothersome to those in the surroundings but not to the person himself
- When the person lacks insight into his problem

You teach a person to do something in a certain manner. No personal insight or reflection about the learning is needed. Automatization of actions or series of actions.

Whole concept learning
- When the person lacks meta-cognition (“I know what I know and what I am capable of.”)
- When the person is capable of learning things by rote
- When the person needs to learn patterns, as in social situations

A person can learn something when it is related to a given situation or context. This is rote learning without personal reflection and the knowledge thus gained cannot be lifted out of that context and generalized to others.

Insightful learning
- Requires meta-cognition
When a person has the ability to think about his own thought processes and is aware of what he knows and what he does not know, he can learn by gaining greater and greater understanding. His way of thinking and his actions are altered by new knowledge. What is known can be lifted out from its original context and applied in comparable situations. When a person has reached this level of thinking and meta-cognition, cognitive therapy can be an alternative form of treatment.

Social learning
- Those who are unable to intuitively “read” social situations are in need of tools to help them better cope.
- We learn in a social context, for example, in a social group whose purpose is to teach social behaviour.

Imagination as a learning method
- For establishing contact
- To think through alternative scenarios and their consequences
- To increase flexibility of thought

Educational content
- Practical daily-living skills
- Knowledge of people, social rules
- Second-hand knowledge that can be found in books and from the experiences of others in order to learn new things, gain information and for intellectual stimulation