

INTERNATIONAL TRAINING
May 25-26 and June 1-2, 2021
University of Economics and
Innovation in Lublin



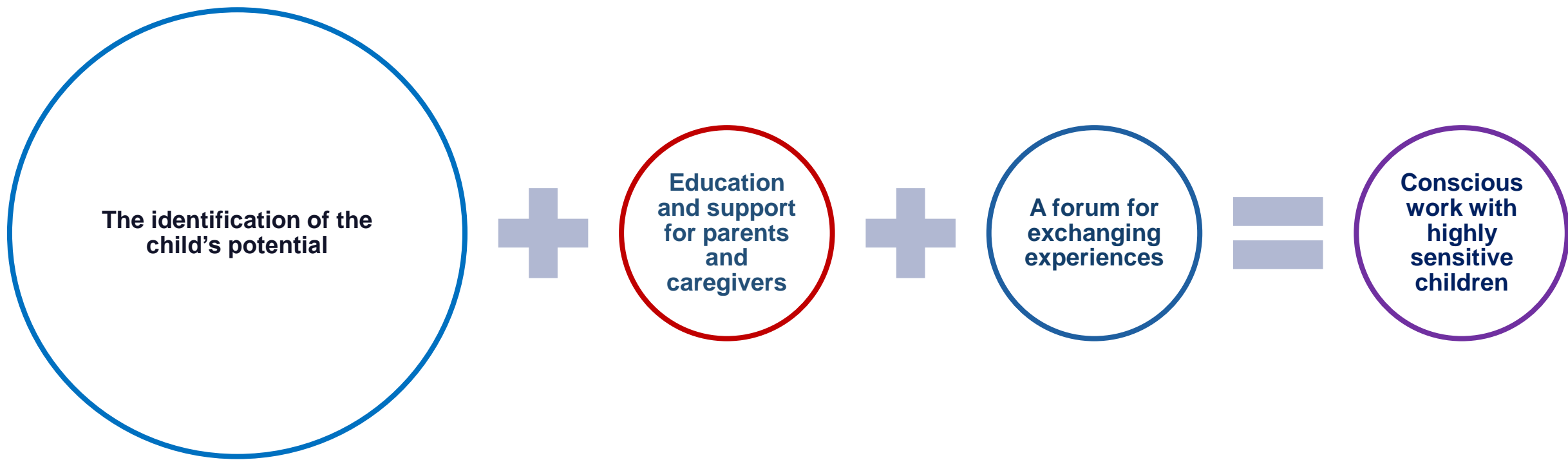
„A MODEL OF SUPPORT FOR HIGHLY SENSITIVE CHILDREN IN PRESCHOOL AND EARLY SCHOOL AGE”

High sensitivity identification - the basis for questionnaires design. Assumptions of the tool "Sensory Processing Sensitivity in children"

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Baryła-Matejczuk (2019)

Structure

Methods of sensitivity measurement

Basis for the proposed approach

The basis for questionnaires design

Versions of the questionnaire "Sensory Processing Sensitivity in children"

Sensory Processing Sensitivity Assessment (1/5)

- Researchers have found difficulties to assess the trait of SPS, since it implies to decompose the personality in a complex way (Aron, 2020)
- However, the first measure for assessing SPS has been the Highly Sensitive Person Scale (HSPS), which is a 27-item self-report questionnaire composed of positive and negative cognitive and emotional responses to environmental stimuli such as art, noises, smells, etc. (Acevedo et al., 2014; Aron & Aron, 1997; Greven et al., 2019; Lionetti et al., 2018)
- Thus, the Highly Sensitive Child Scale (HSCS), composed of 12 items and recently revised version with 21 questions, has been built during the development of HSP scale for adults (Pluess et al., 2018).

Sensory Processing Sensitivity Assessment (2/5)

- The HSC scale was also used to measure the sensitivity of preschool children (Slagt, Dubas, van Aken, Ellis, & Deković, 2017). For this purpose, the form of the questions was changed, and parents were asked the questions. The questions were rephrased in such a way that it was the parent who referred to their child's observed behaviour.
- In our study, this version of the scale was used to estimate the validity of the questionnaire.

Sensory Processing Sensitivity Assessment (3/5)

- On the other hand, Aron (2002) developed another **23-item parent report questionnaire measuring SPS in children.**
- This scale is used to analyze the association between SPS and daily functioning (Boterberg & Warreyn, 2016).

My child:

- ☐ startles easily.
- ☐ complains about scratchy clothing, seams in socks, or labels against his/her skin.
- ☐ doesn't usually enjoy big surprises.
- ☐ learns better from a gentle correction than strong punishment.
- ☐ seems to read my mind.
- ☐ uses big words for his/her age.
- ☐ notices the slightest unusual odor.
- ☐ has a clever sense of humor.
- ☐ seems very intuitive.
- ☐ is hard to get to sleep after an exciting day.
- ☐ doesn't do well with big changes.

- ☐ wants to change clothes if wet or sandy.
- ☐ asks lots of questions.
- ☐ is a perfectionist.
- ☐ notices the distress of others.
- ☐ prefers quiet play.
- ☐ asks deep, thought-provoking questions.
- ☐ is very sensitive to pain.
- ☐ is bothered by noisy places.
- ☐ notices subtleties (something that's been moved, a change in a person's appearance, etc.)
- ☐ considers if it is safe before climbing high.
- ☐ performs best when strangers aren't present.
- ☐ feels things deeply.

Sensory Processing Sensitivity Assessment (3/5)

- The first scale developed to measure sensory processing sensitivity was unidimensional.
- However, studies conducted with the use of it, indicate the presence of SPS components/scales. Initial factor analyses on HSP scale scores suggested a unitary sensitivity factor (Aron and Aron, 1997).

Sensory Processing Sensitivity Assessment (4/5)

- Subsequent studies shed new light on the first analyses. Studies by Smolewska, McCabe and Woody (2006), among others, point to the presence of three factors.
- In recent years, they have often been used in SPS research as a way of describing characteristics of high sensitivity. In-depth analyses of scale adaptations in many countries indicated the presence of two to six factors.

Sensory Processing Sensitivity Assessment (5/5)

The most popular solution, supported by psychometric analyses, is the emergence of the following elements in the HSPS and HSC scales (Pluess et al., 2017; Smolewska et al., 2006):

- 1. **Low Sensory Threshold (LST)**, or sensitivity to subtle, external stimuli),
- 2. **Ease of Excitation (EOE)**, or ease of being overwhelmed by internal and external stimuli) and
- 3. **Aesthetic Sensitivity (AES)**, otherwise known as openness "to" and pleasure "from" aesthetic experiences and positive stimuli/stimulation).

Kwestionariusz HSP-PS (HSP Scale) – short form v02 (10 pytań)

(Autor: E.N. Aron; polska adaptacja: Monika Baryła-Matejczuk, Wiesław Poleszak)

.....
Wiek

.....
Płeć

INSTRUKCJE: Odpowiedz na każde pytanie zgodnie z tym jak się czujesz, używając następującej skali:

	1	2	3	4	5	6	7
	Zupełnie nie			Umiarkowanie			Zdecydowanie tak
1.	Czy masz bogate, złożone życie wewnętrzne?						1 2 3 4 5 6 7
2.	Czy drażnią cię głośne dźwięki?						1 2 3 4 5 6 7
3.	Czy głęboko przeżywasz sztukę lub muzykę?						1 2 3 4 5 6 7
4.	Czy denerwujesz się kiedy musisz zrobić dużo rzeczy jednocześnie?						1 2 3 4 5 6 7
5.	Czy drażni Cię kiedy inni chcą od Ciebie zbyt wiele rzeczy na raz?						1 2 3 4 5 6 7
6.	Czy zmiany w Twoim życiu dezorganizują Cię?						1 2 3 4 5 6 7
7.	Czy zwracasz uwagę i cieszysz się z delikatnych lub pięknych zapachów, smaków, dźwięków lub dzieł sztuki?						1 2 3 4 5 6 7
8.	Czy źle się czujesz gdy trzeba robić wiele rzeczy jednocześnie?						1 2 3 4 5 6 7
9.	Czy przeszkadzają ci intensywne bodźce np. głośne dźwięki lub chaos?						1 2 3 4 5 6 7
10.	Czy stajesz się nerwowy i niepewny, a w efekcie osiągasz gorsze wyniki wtedy, gdy ktoś Ciebie obserwuje podczas rywalizacji lub wykonywania jakiegoś zadania?						1 2 3 4 5 6 7

- HSP-P Scale © 2020
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Skala Highly Sensitive Child – Polish (HSC Polish Version)

INSTRUKCJA: Odpowiedz na każde pytanie zgodnie z tym, jak czujesz:

1. Zauważam nawet niewielkie zmiany w moim otoczeniu.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

2. Głośne dźwięki drażnią mnie.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

3. Uwielbiam przyjemne zapachy.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

4. Denerwuję się, kiedy muszę zrobić dużo rzeczy w krótkim czasie.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

5. Niektóre utwory muzyczne (piosenki) sprawiają, że jestem naprawdę szczęśliwa/y.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

6. Jestem poirytowana/y, kiedy ktoś każe mi robić zbyt wiele rzeczy jednocześnie.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

7. Nie lubię oglądać programów telewizyjnych, które zawierają dużo przemocy.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

8. Źle się czuję, gdy zbyt wiele rzeczy dzieje się jednocześnie.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

9. Nie lubię, gdy w moim życiu się coś zmienia.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

10. Uwielbiam, kiedy coś dobrze smakuje.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

11. Nie lubię głośnych dźwięków.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

12. Denerwuję się, kiedy ktoś mnie obserwuje w czasie wykonywania pracy. Idzie mi wtedy gorzej niż zwykle.

Zdecydowanie nie 1 2 3 Umiarkowanie 4 5 6 Zdecydowanie tak 7

Reference: Baryła-Matejczuk, M., Kata, G., & Poleszak, W. (2019, September). Wrażliwość środowiskowa a uzdolnienia uczniów szkół podstawowych – psychometryczne właściwości polskiej wersji skali Highly Sensitive Child (HSC). Paper presented at the Conference: 'Uwarunkowania i przykłady dobrej praktyki diagnostycznej', USWPS, Warszawa.

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<https://sensitivityresearch.com/>

→ Ciąg dalszy pytań na następnej stronie

The process of constructing a questionnaire to measure Sensory Processing Sensitivity In Children

with the above knowledge, we decided to propose an approach in which we include the spheres of children's functioning.

The construction of the questionnaire, which in its first version was called KWPSuDz, consisted of a number of steps....

Basic methodological assumptions (1/4)

The basis was developmental and individual differences psychology as well as cross-cultural psychology.

Temperament traits are partly biologically determined and have been present in humans since early ontogeny and are also found in the animal world (see Strelau & Zawadzki, 1998; Strelau & Zawadzki, 2018; Buss & Plomin, 1984, Eysenck, 1970) as emphasized by the assumptions of Environmental Sensitivity (Pluess, 2015).

1

The construction of the questionnaire therefore sought to capture culturally universal definitional components of sensitivity in children.

Basic methodological assumptions (2/4)

The procedure proposed by Strelau and Angleitner (1994) was used in the construction.

The procedure takes into account, on the one hand, **universal aspects of temperament** [in cross-cultural psychology referred to as the **etic approach**].

On the other hand, it takes into account **culture-specific manifestations of temperament** [in cross-cultural psychology referred to as the **emic approach**] (see Strelau, Zawadzki, 1998).

Basic methodological assumptions (3/4)

2. The author of the first scale to measure sensitivity of sensory processing considered it to be a unidimensional trait of temperament (Aron & Aron, 1997).

2

However, given that the analyses were mainly conducted on the data from a group of adults and the fact that the factors emerged from statistical analyses in the construction of the tool, it was decided to conduct exploratory research of a **qualitative nature**.

Basic methodological assumptions (4/4)

3. The theoretical basis of the questionnaire is the concept of Sensory Processing Sensitivity in children. Sensory processing sensitivity is a trait that describes individual differences in sensitivity to both positive (favourable, supportive, pleasant) and negative (difficult, overwhelming stimuli from the environment.

3 Sensitivity of sensory processing is associated with: depth of processing, propensity to overstimulation, emotional reactivity and empathy, and aesthetic sensitivity. This trait manifests itself **in various areas of life**. In the questionnaire, the child's activities in four spheres of functioning will be assessed: **physical, emotional, interpersonal relations and cognitive**.

Focus Group Interviews (1)

Semi structured interview consisting of four parts - the key part was the characteristics of the HS Child in:

- **Physical** Sphere,
- **Emotional** sphere,
- **Interpersonal** sphere,
- **Cognitive** sphere

The interview was conducted in groups:

- kindergarten teachers
- primary school teachers
- parents of preschool children
- parents of school-aged children (grades 1-3)

Focus Group Interviews (2)

- Two-level recruitment
 - 1) contact with schools (teachers, educators, school psychologists) - meetings with researchers during which they learned about the characteristics of a highly sensitive children;
 - 2) teachers/school psychologists/pedagogists invited parents of high sensitive children from their classes / groups
- **Exclusion criteria:** diagnosis of sensory disintegration, autism-related syndroms, a child being undergoing diagnosis in a psychological and pedagogical counseling center
- Transcripts were analyzed in the Atlas.ti program (by group of experts from WSEI and University of Alicante)

FG Interviews were conducted in Spain (Mainland and Canary Islands), Italy, North Macedonia and Romania

- Data regarding FGI in Poland:
- 12 FG were implemented
- 6-9 people attended
- a total of 100 people
- the groups were led by 2 experienced Moderators
- Key informant protocols were prepared after all FGs were completed
- **Categories** were created based on the induction analysis



Mum of Jaś, aged 4

“Whatever difficult happens, he reacts with aggression, screams, stamps, sometimes you don’t know what’s it all about, and then when we start to think about it we come to the conclusion that maybe he is hungry. And we are usually right.”

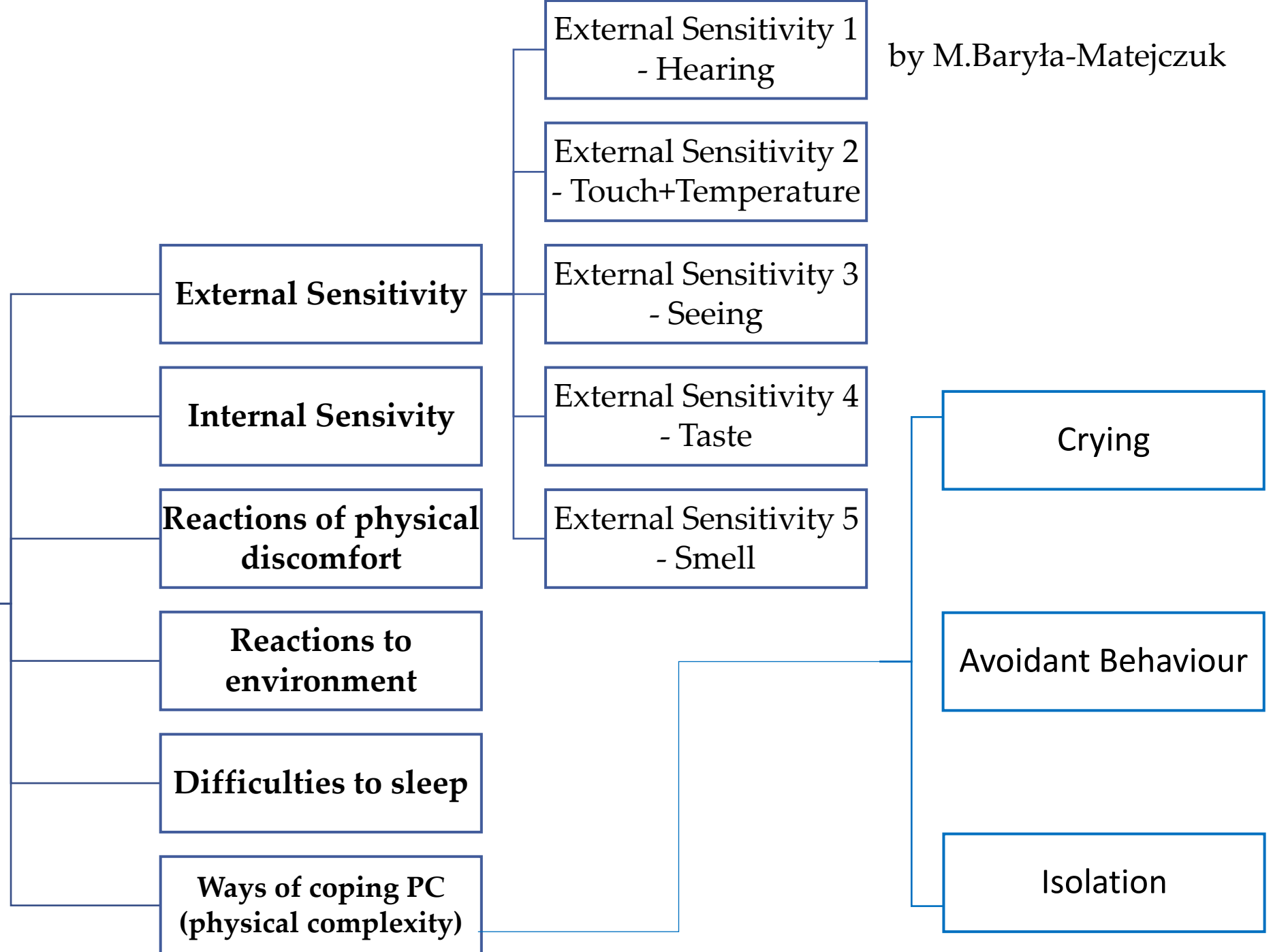
Mum of Karolinka, aged 5

“My daughter is sensitive to the touch of clothes, some tights, she doesn’t want to wear underwear. She hates tights with the under-foot seam, she pulls them up to her toes so that the seam doesn’t touch her”





PYSHICAL SPHERE



by M.Baryła-Matejczuk

-
- **Mum of Pola, aged 4**
 - “She recently had to dance with a boy from the younger group and she said that she doesn’t like dancing with him. I ask her why, because he is small? – no, because he has little hands and he gets nervous and his hands are sweating. When I know that he is nervous and his hands are sweating, I am also nervous and my hands are sweating too”.





EMOTIONAL SPHERE

Deep experience of emotions

Empathy

Emotional Influence

Intense expression of emotions

Somatic manifestation of
emotions

High levels of stress

Attachment to objects

Emotional interactions with
nature

Emotional interaction with art

Emotional interactions with
animals

Reactions of emotions

by M.Baryła-Matejczuk

Crying

Hypeactivity

„Flow”

Negative Attitude

-
- **Mum of Antek, aged 4**
 - “I ask him why he doesn’t want to perform. It took a long time for him to admit what the problem was, because we would sit in the front row to support him, we would sit in the back row so he couldn’t see us, because maybe we made him nervous. And he said: Mum, there are too many people”





INTERPERSONAL SPHERE

Roles in group

Go unnoticed in groups

Be in the spotlight in groups

Multiple interactions within the group

Time for group integration

Distraction by social interactions

Mental block in time or results situations

Lack of communication of needs/problems

Intense reactivity to social rewards and punishment

Ways of coping SS (social situations)

Fear and Anxiety

Avoiding conflicts

Thinking about their fault

Social support

Mum of Jaś, aged 5

“The kindergarten teacher said that he is naughty, that he says he is bored while rehearsing for the play. And he really memorises quickly, although he looks as if he were suspended, detached”





by M.Baryła-Matejczuk

COGNITIVE SPHERE

- Cognitive inflexibility
- Cognitive overload
- Smart sense of humour
- Deep cognitive processing
- Repetitive questions
- Perfectionism
- Intuitive Processing
- Self-Steem
- Perseverance in the task
- Warm and calm discipline
- Experience integration
- Episodic memory
- Need of control
- Creativity
- Ways of coping CA (cognitive aspects)

Asking questions

Fear and Anxiety

The basis for questionnaires design

- Based on the categories thus created, questionnaire items for the tool were developed.
- For each category, a maximum number of questionnaire items were generated in two independent teams (experts from WSEI and experts from UA).
- They were then translated into Polish. Repetitive items were removed and re-checked to ensure that each category was saturated with questions.
- In this way, from over 200 items, 167 items were selected for evaluation by competent judges
- The test items were also subjected to ethical and linguistic correctness assessments

Version	Physical sphere		Emotional sphere		Interpersonal sphere		Cognitive sphere	
	Was	Is	Was	Is	Was	Is	Was	Is
For a parent of a preschool child	16	10	16	10	16	10	16	12
For a parent of a school child	15	4	15	12	16	14	16	11
For a teacher of a preschool child	13	12	14	11	13	7	15	9
For a teacher of a school child	15	7	14	8	14	11	13	7

Questions that turned out to be irrelevant to the identification of high sensitivity

Version for parents of preschool children:

PHYSICAL SPHERE:

1. Has bad noise tolerance
2. Loves nice sounds
3. Perceives some flavors very intensively
4. Has a particularly sensitive sense of smell
5. Easily identifies small changes
(or modifications) in the environment/surroundings
6. Is happy to try new dishes

EMOTIONAL SPHERE:

1. Is strongly influenced by the moods and emotions of other people
2. Badly tolerates difficult emotions of others (e.g., sadness, anger, tension)
3. Expresses strong emotions, especially towards loved ones (emotion puffs up, rebound)
4. Doesn't need much to cry, hysteria
5. Fatigue is manifested by aggression
6. When many things happen at once, it stresses him/her more than other children

QUESTIONNAIRE OF SENSORY
PROCESSING SENSITIVITY IN CHILDREN
Version for parents of preschool
children

PHYSICAL SPHERE

1	2	3	4	5	6	7
Not at all			Moderately			Extremely
Too hot foods bother her/him	1	2	3	4	5	6 7
Finds intense lights unpleasant	1	2	3	4	5	6 7
Is sensitive to temperature changes	1	2	3	4	5	6 7
Avoids being in the bright sun	1	2	3	4	5	6 7
Dislikes certain food textures (e.g. diluted, pasty, lumpy)	1	2	3	4	5	6 7
If experiences something intensely, complains of pain (e.g. headache, stomach ache)	1	2	3	4	5	6 7
More often than other children, signals a need for rest	1	2	3	4	5	6 7
Badly tolerates dirt, wetting, etc. on clothing or on the hands	1	2	3	4	5	6 7
When many things happen at once, is tired more often than other children	1	2	3	4	5	6 7
It is difficult for him to fall asleep, especially after an active day	1	2	3	4	5	6 7

QUESTIONNAIRE OF SENSORY
PROCESSING SENSITIVITY IN CHILDREN
Version for parents of preschool
children

EMOTIONAL SPHERE

1	2	3	4	5	6	7	
Not at all		Moderately				Extremely	
Even small events, everyday situations, can be source of stress for her / him (e.g. school trip / pre-school exit)	1	2	3	4	5	6	7
Needs favorite objects to feel better	1	2	3	4	5	6	7
Is easily embarrassed	1	2	3	4	5	6	7
Is worried about the assessment of others	1	2	3	4	5	6	7
Has a special loathing for insects, e.g. fly, gnat, spider	1	2	3	4	5	6	7
Has a tendency to pessimistic / unfavorable course of events	1	2	3	4	5	6	7
Experiences art very much, e.g. is moved by movies and music	1	2	3	4	5	6	7
Has a tendency to accumulate emotions	1	2	3	4	5	6	7
It's hard to control strong emotions	1	2	3	4	5	6	7
Experiences emotions intensely	1	2	3	4	5	6	7

QUESTIONNAIRE OF SENSORY PROCESSING SENSITIVITY IN CHILDREN

Version for parents of preschool
children

INTERPERSONAL SPHERE

1	2	3	4	5	6	7
Not at all			Moderately			Extremely
Needs additional incentives(stimulus) to get involved in the group	1	2	3	4	5	6 7
In a group where a lot is going on, it seems to be temporarily absent	1	2	3	4	5	6 7
Badly tolerates time pressure in situations of evaluation, competition (tests, competitions)	1	2	3	4	5	6 7
Public appearances (academies, competitions) cost her/him more than other children	1	2	3	4	5	6 7
Rarely signals his/her needs	1	2	3	4	5	6 7
Experiences conflicts with peers particularly intensely and for a long time	1	2	3	4	5	6 7
Approaches newly met people from a distance	1	2	3	4	5	6 7
Doesn't like to be observed	1	2	3	4	5	6 7
Blocks himself/herself when is the center of attention	1	2	3	4	5	6 7
Before joins the group, needs more time than peers	1	2	3	4	5	6 7

QUESTIONNAIRE OF SENSORY PROCESSING SENSITIVITY IN CHILDREN

Version for parents of preschool
children

COGNITIVE SPHERE

1	2	3	4	5	6	7
Not at all	Moderately					Extremely
Is strongly attached to his/her way of thinking	1	2	3	4	5	6 7
New situations cause him/her a strong need to search for information, ask questions, dispel doubts	1	2	3	4	5	6 7
Is not satisfied with a superficial and casual answers	1	2	3	4	5	6 7
Is slowly getting used to new people, things and phenomena	1	2	3	4	5	6 7
Is overwhelmed by a large amount of information at once	1	2	3	4	5	6 7
Has a special sense of humor, often not understood by peers	1	2	3	4	5	6 7
Jokes in an intelligent way	1	2	3	4	5	6 7
Uses rich vocabulary beyond his age	1	2	3	4	5	6 7
Tries to perform the task entrusted by the teacher with great care	1	2	3	4	5	6 7
Can surprise you with information / knowledge	1	2	3	4	5	6 7
In the face of a new task, analyzes all potential scenarios, anticipating difficulties and threats	1	2	3	4	5	6 7
A slight failure causes the withdrawal of many activities that have been undertaken without any difficulty	1	2	3	4	5	6 7



WYŻSZA SZKOŁA
EKONOMII I INNOWACJI
W LUBLINIE



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Thank you for attention!

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