

A young child wearing a yellow and black bee costume is sitting at a table. In front of them is a white beehive-shaped air diffuser. The background shows a wall with a pattern of small black bees on a reddish-brown background. The text is overlaid on the left side of the image.

Our experience with Api-Aromatherapy in Kindergarten

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INSTITUTE for the development of Empathy
and Creativity ENEJA

First international Conference on Beehive Air
Therapy, 12-13 February 2022

About Institute Eneja

- Family beekeeping MedaPolnaSkleda
- Two mentors in beekeeping
- National professional qualification
- Programs:
 - Terra apis,
 - API kindergarten,
 - API pedagogy
- The name Eneja



About author

- Nina Ilič is the professional head of api pedagogical programs at the Eneja Institute. She develops and coordinates pedagogical programs for the Municipality of Ljubljana (she is the author of pedagogical program API Kindergarten and Natural Science and Science-Culture Day "Wandering with a Bee in Ljubljana") and manages the Melliferous Educational Garden Grba on Bee Path in Ljubljana.
- She is cooperating with the Municipality of Ljubljana in the international project BeePathNet and BeePathNet - reloaded, in which she provides professional support in the transfer of good practice of the mentioned pedagogical programs to nine European cities.
- Nina Ilič is an international lecturer in the fields of pedagogy and apitherapy. With her professional presentations she has enriched over 20 professional and scientific seminars, conferences, congresses and cultural events on foreign and domestic soil. In cooperation with the Ministry of Education, Science and Sport of the Republic of Slovenia and the Municipality of Ljubljana, she has so far organized and conducted four 16-hour pedagogical seminars API kindergarten. In October 2021, in cooperation with Apimondija, Slovenian Beekeepers' Association, Romanian Apitherapy Association and Association of Beekeeping Societies Maribor, she co-organized and conducted the First International Conference Apitherapy for Children.
- With her contribution, she made a key contribution to the formation of the Bee Path Development Strategy in the Municipality of Ljubljana and have published nine professional articles in national and foreign journal. At the request of the Municipality of Ljubljana, she also wrote professional materials: API kindergarten - Handbook for educators, Etiquette of good behavior near bees, Code for safe implementation of the pedagogical program API kindergarten and Code for the best API kindergarten in Ljubljana.
- She is an educator of preschool children and a food technician, and on the basis of appropriate training and quality work she also obtained the Slovenian national certificate of NPK apitherapist.

Preparation combines pedagogical & apitherapeutic profession

- Placement of children in the appropriate period of development; placement of children in the appropriate development period is necessary in order to set goals and monitor the development of children.
- Children included in the program belong to the 1st age group (1-3). The stage of cognitive development of the included children (according to Piage): sensomotoric (sensory perceptions and movement) and preoperative (egocentricity, irreversibility and centered thinking) and pre-conceptual or symbolic thinking.
- Stage of psychosocial development of children involved (according to Erikson): Phase 1: psychosocial crisis trust against mistrust and phase 2: psychosocial crisis independence against doubt and shame (autonomy).
- After that we included all preschool groups in 10 public kindergartens.
- We fokus on indicators that would reveal the api-aromatherapy effects: inner motivation of children and their maintaining focus (attention development), voluntary participation of children in the implementation of the daily routine in kindergarten, the mood and well-being of children, the atmosphere in the group and the willingness to interact in solidarity, blood circulation (cold/warm feet and hands).
- In preschool period the respiratory system is still developing. In children who experience poor respiration, it often leads to deviant behavior, which from a pedagogical point of view is recognized as a challenge in sociological development.



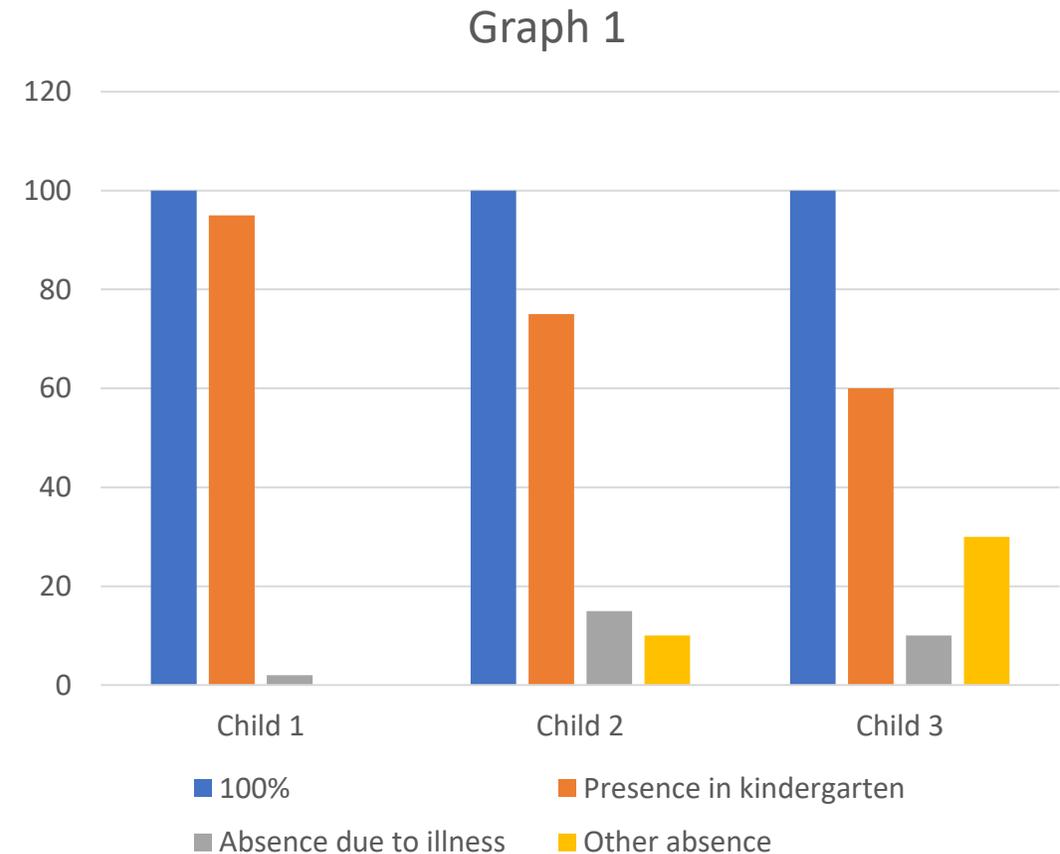
Methods & research questions

- Active observation with participation.
- Monitoring of the group (special forms provided).
- Percentage of the presence of children in kindergarten.

- Would api-aromatherapy in kindergarten provide better cooperation between the pedagogical workers and parents of the children?
- Would Api-aromatherapy improve conditions for their physical and mental health?
- Would children included in API kindergarten maintain better health?

Measuring results

- The reasons for absence from the kindergarten can be various. Not every absence can be considered credible. For example, Child 3 is healthier than an average one-year-old child, although the presence indicators shows otherwise. For Child 2, it is necessary to take into account the fact that he received apitherapy treatments two months later than the others, because earlier he simply did not trust us (yet). All three examples from the graph are children of the age group 1-2. The result of the program API kindergarten is a low rate of absence due to illness.
- In addition to nebulization of honey, wax and propolis, the children enjoyed bee products in the diet also (all groups).
- Immediate effect: the children calm down completely and relax and happily participate in guided activities and in the daily routine.



Results



- Api-aromatherapy in kindergarten does provide better cooperation between the pedagogical workers and parents of the children.
- Api-aromatherapy in kindergarten provides better relationships among pedagogical workers.
- Api-aromatherapy does improve conditions for children's physical and mental health and consequently for their development.
- First studies confirmed that the Children included in the API kindergarten maintained better health.
- Due to the covid situation, we cannot conclude with certainty that the children included in the API kindergarten maintained better health, as the kindergartens were closed in the meantime and we do not have a picture of continuous treatment during one school year.



Api-aromatherapy is an efficient method for overcoming social anxiety

Api-aromatherapy is an effective method to alleviate the stressful period known as introduction to kindergarten (the first weeks of attending kindergarten).

The wax is rubbed into the skin during kneading.

Suggestions for beekeepers about kindergartens / preschool child(ren) visiting beehive air therapy

- Very short duration.
- Option to test - teachers are professionally obliged to check the terrain before bringing children to it.
- It has to be a good experience – the atmosphere is of highest importance. Pedagogical objects (goals) are different than medical objects (goals).
- We train API kindergarten teachers to check HCCP and all necessary measures in the field of health and hygiene in the chamber and inhalation system of a beekeeper and/or apitherapist.
- No nebulization inhalation tubes.
- Professional guidance adapted to pre-school children.
- Have teachers provide you consent forms of the parents.
- Protective glass wall insofar as access is past flying bees.
- Let them listen to buzzing of the bees. Activation of all the senses is important for optimal cognitive development in preschool children.
- Have fresh water and appropriate cups that children can safely drink from after BHAT.
- Have some useful information regarding BHAT for the parents (to go).



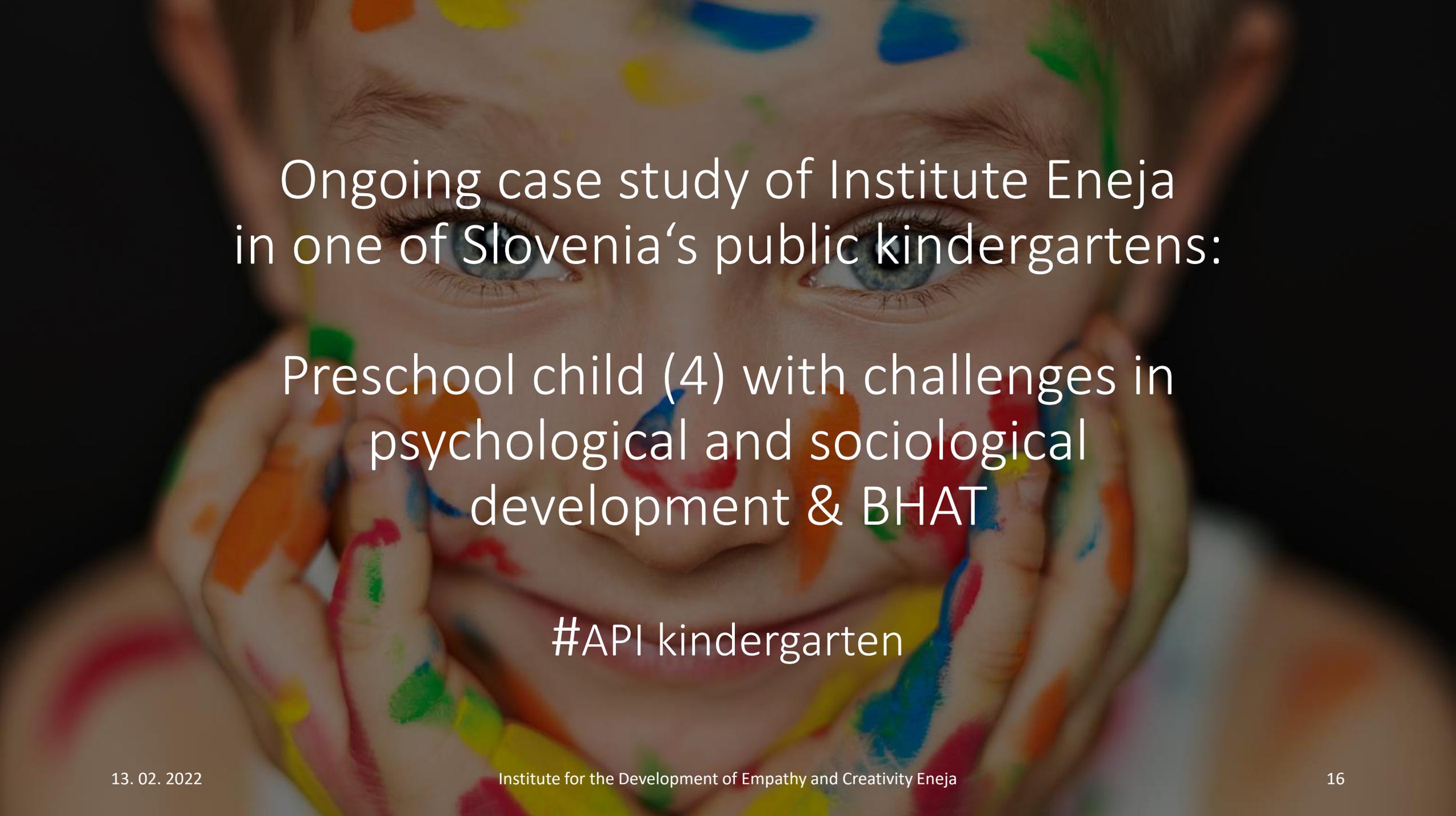












Ongoing case study of Institute Eneja
in one of Slovenia's public kindergartens:

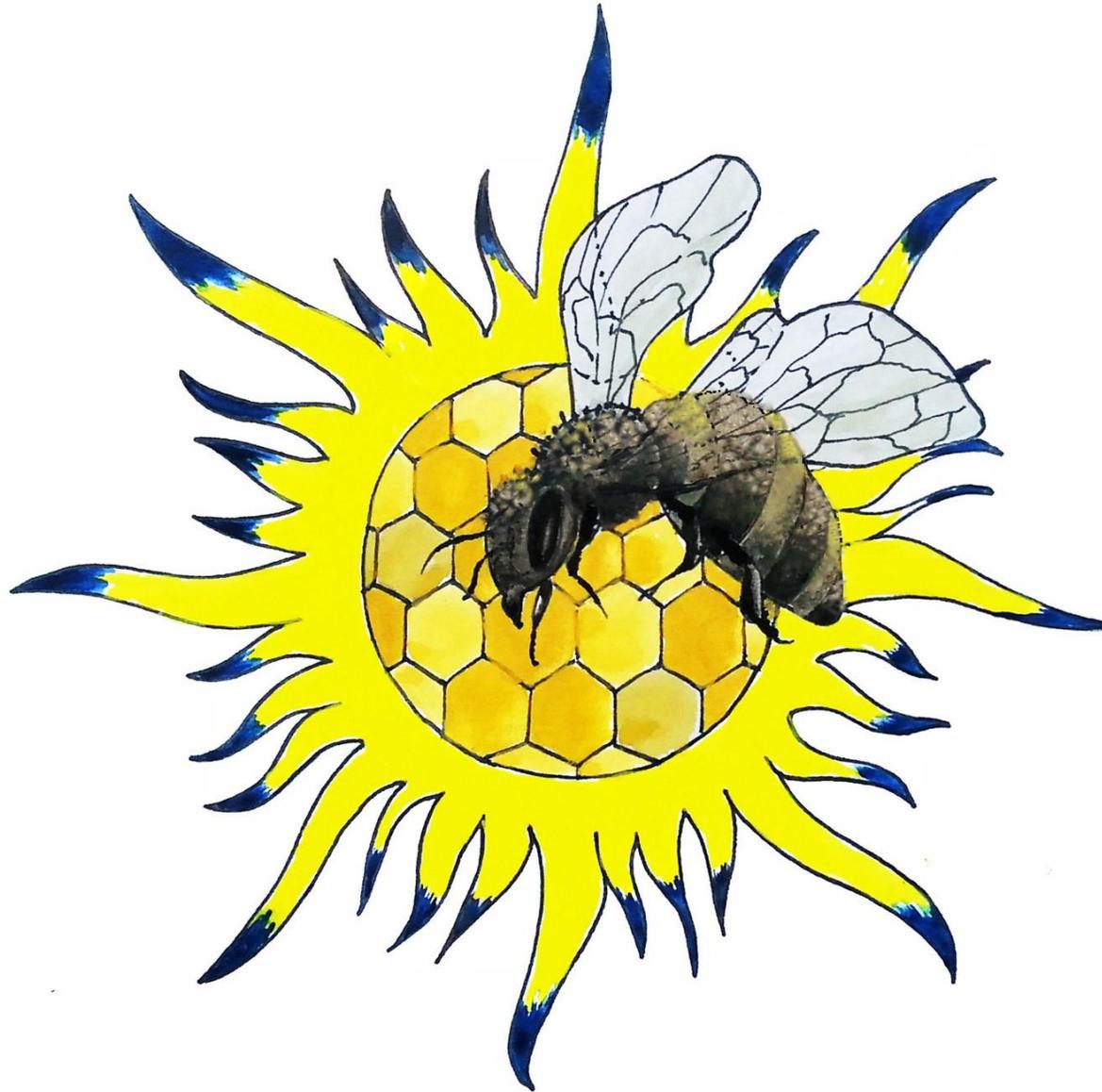
Preschool child (4) with challenges in
psychological and sociological
development & BHAT

#API kindergarten



Resources

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Thank you :)

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