Forum for Osteopathic Education" Conference

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TEACHING
CLINICAL COMPETENCIES

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CLINICAL REASONING DIFFICULTIES IN OSTEOPATHIC STUDENTS AND THE REMEDIAL SOLUTIONS TO BE PROPOSED

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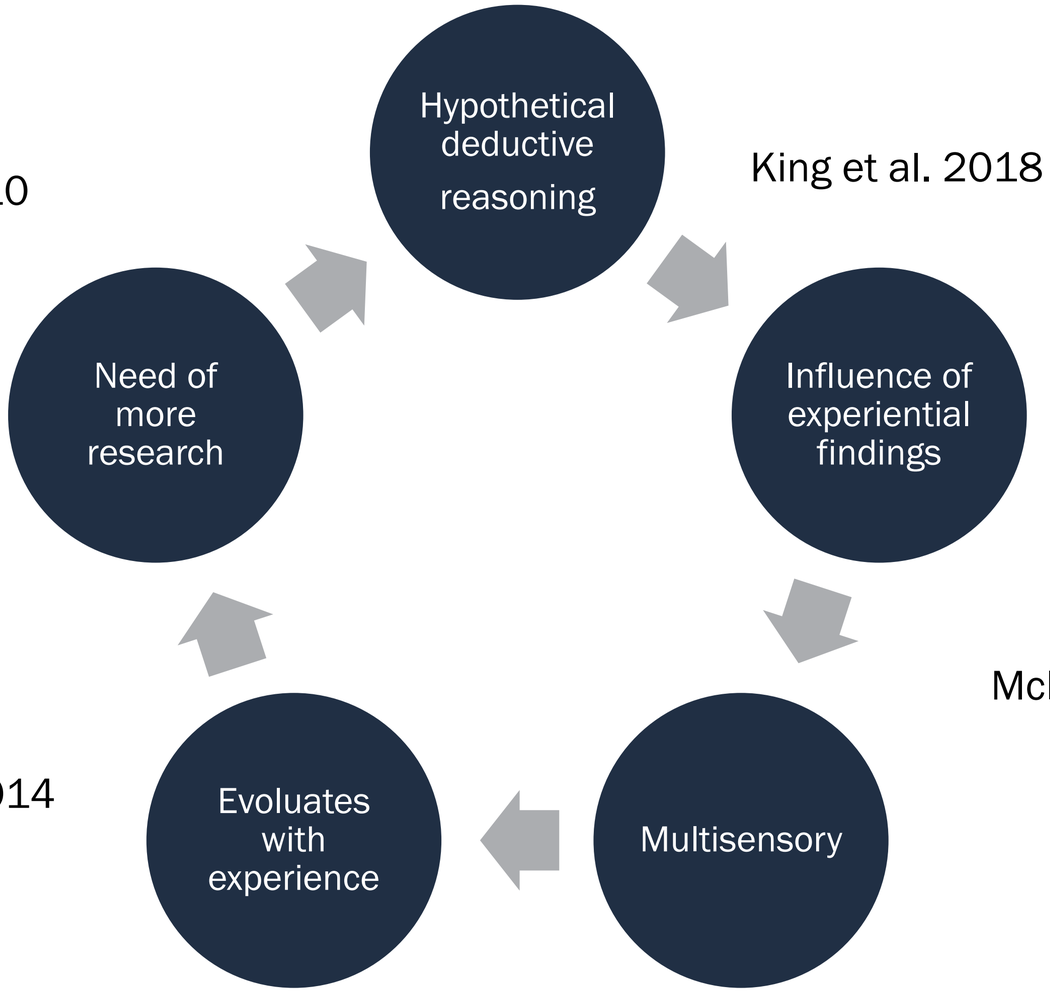
CLINICAL REASONING IN OSTEOPATHY

Thomson et al. 2010

King et al. 2018

McIntyre et al. 2018

Spadaccini et al. 2014

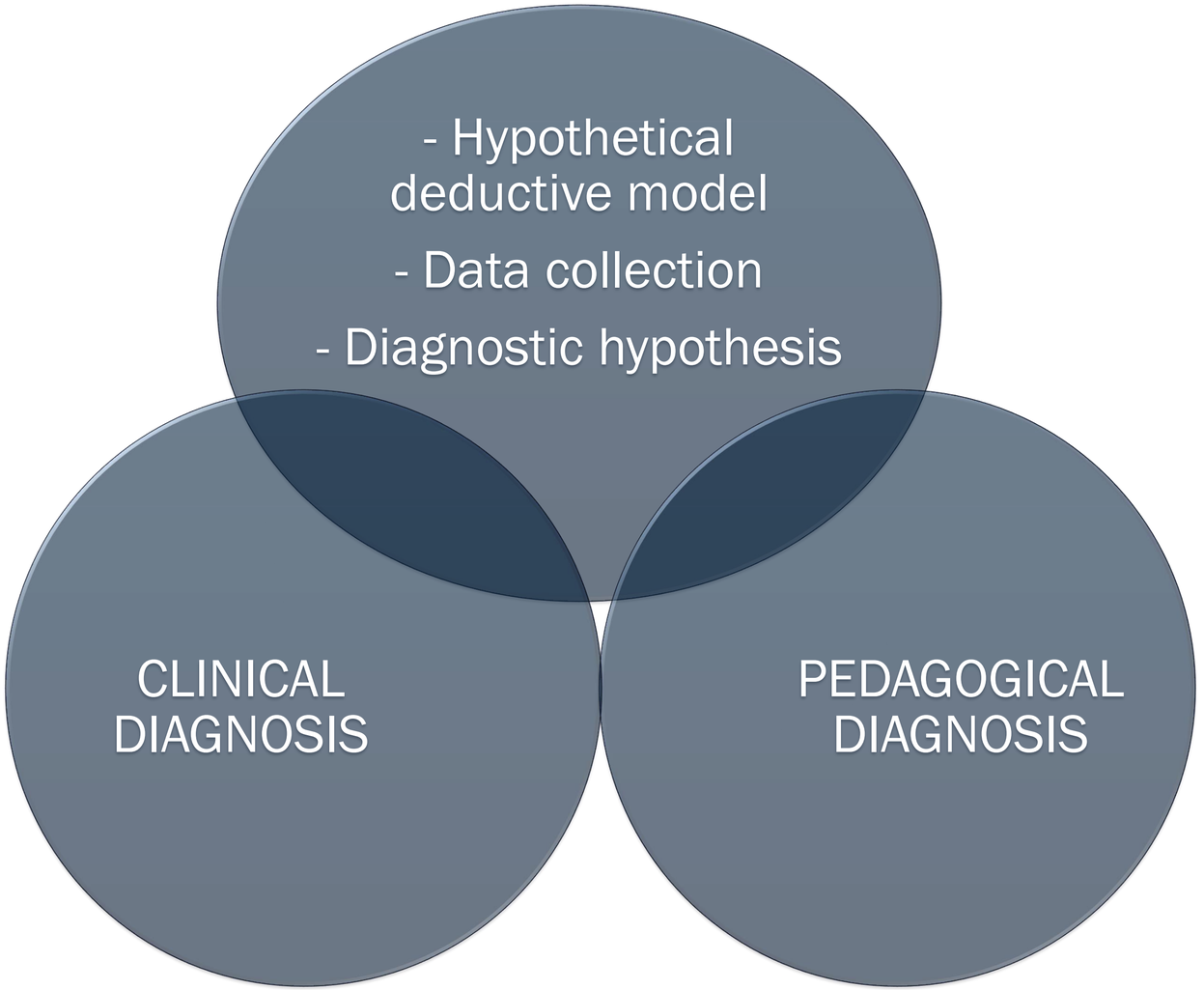


CLINICAL REASONING DIFFICULTIES

- 5 to 15% of medical students
- Late identification in the training process
- Problem of clinical teachers to diagnose the type of difficulty and find a remediation solution

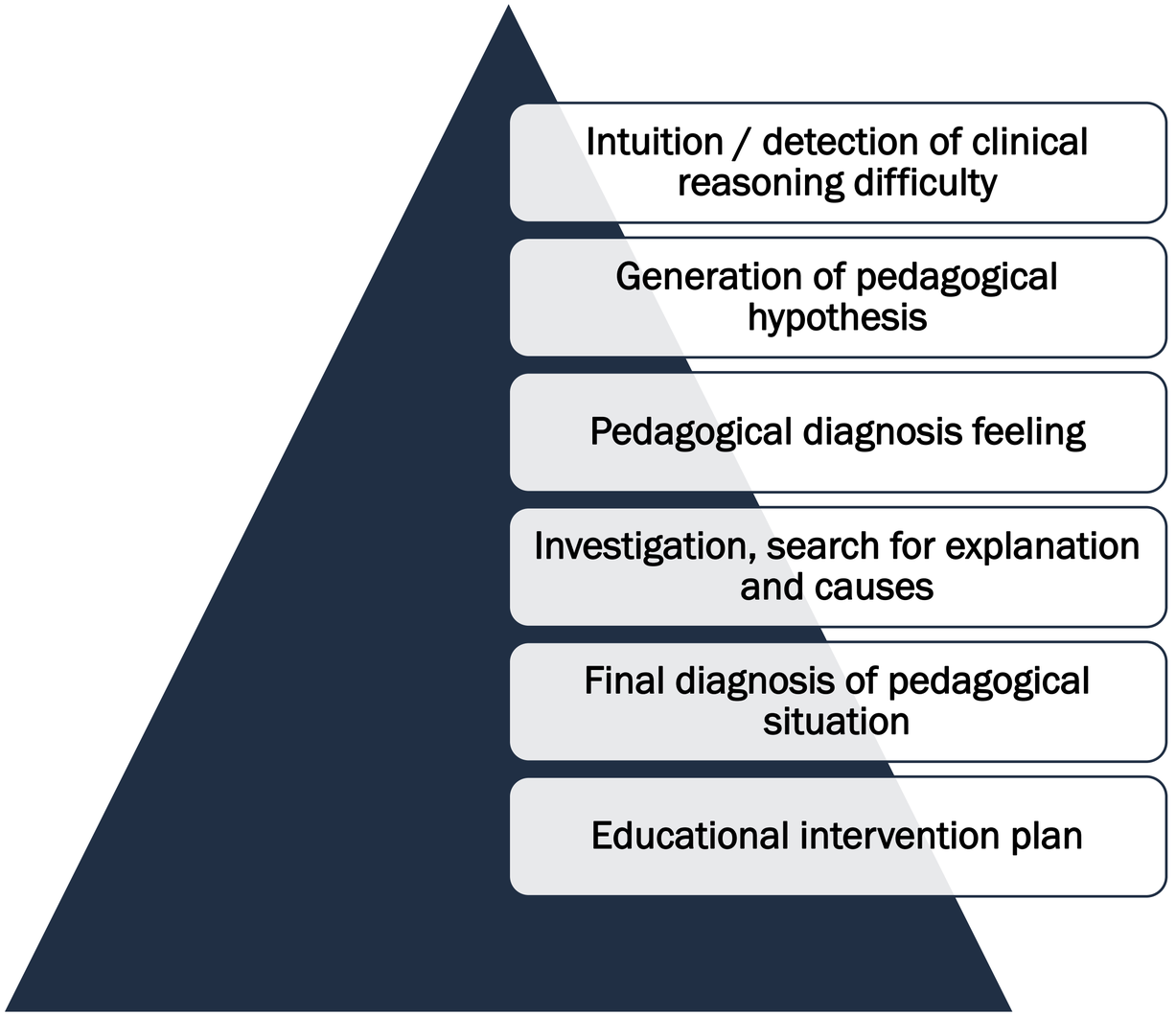
Szumacher et al. 2007 / Frellsen et al. 2008 / Audetat et al. 2011

PARALLEL BETWEEN CLINICAL AND PEDAGOGICAL DIAGNOSIS



Audetat et al. 2011

PEDAGOGICAL REASONING



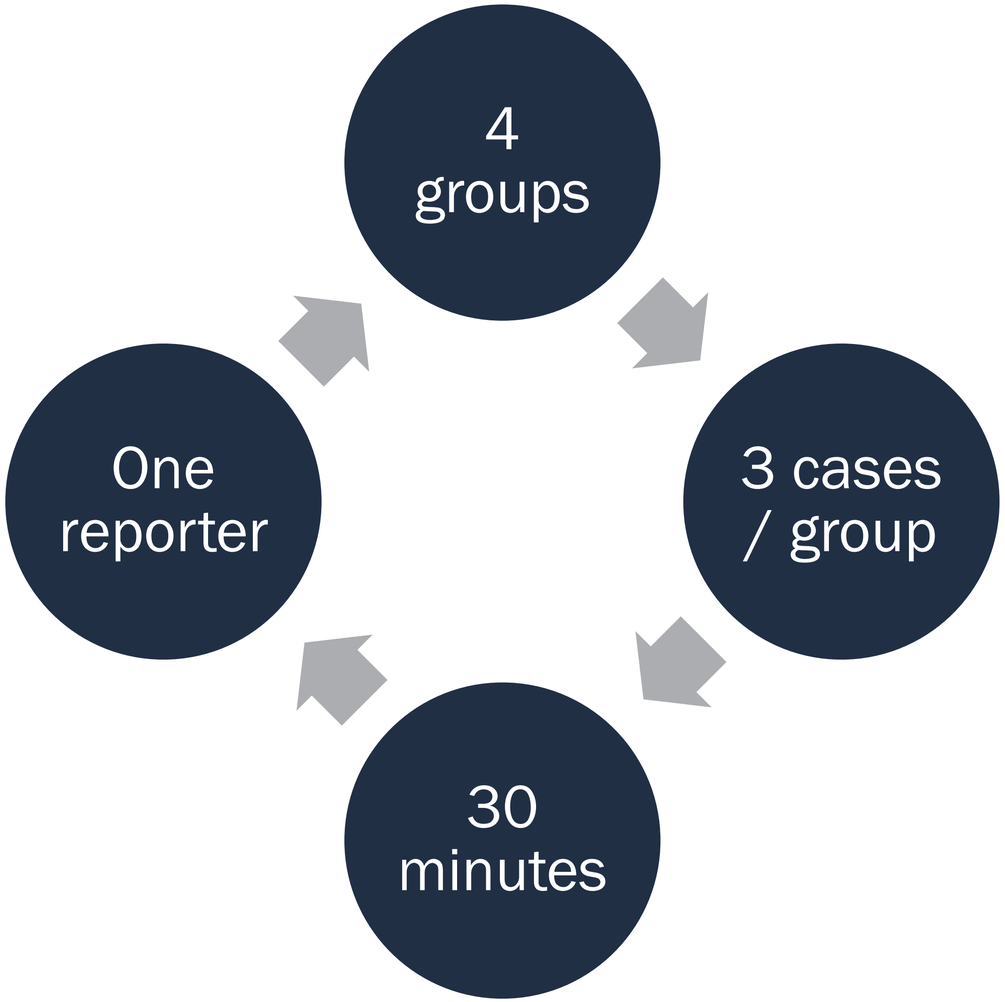
Audetat et al. 2011

CLINICAL REASONING DIFFICULTIES

Identification of the factor that prevents the student from achieving clinical reasoning

Deduction of an appropriate remediation solution

GROUP EXERCISE



1- What prevented the student from completing his clinical reasoning?

2- Verbalise a pedagogical diagnosis for the student

Case 1

A 35-year-old self-employed plumber who ran the Paris Marathon in early April explains that he fell at km 30 and experienced severe pain in his left knee, coupled with rapid and severe swelling in the area. He finished the race running as best he could. He consulted you 3 days later for his pain which was very disabling.
Past history: wisdom teeth operation 3 years ago. Peritonitis at age 15.
Stressed by decreasing turnover.

Beyonce K. takes his history and mentions knee nociception. On clinical examination, she noticed pain on general palpation of the knee and concluded that the patient was suffering from muscle nociception. Her treatment consisted of joint mobilisation of the knee and functional work on it.

1- KNOWLEDGE BIAS

= LACK OF KNOWLEDGE OR LACK OF ORGANISATION OF KNOWLEDGE

QUANTITATIVE: NOT ENOUGH DIAGNOSTIC HYPOTHESES EVOKED

QUALITATIVE: PROBLEM OF PRIORITISING AND ORGANISING KNOWLEDGE TO ANALYSE THE CLINICAL SITUATION

REMEDIAL SOLUTION ?

Case 2

42-year-old woman, dentist, consults for pain in her right shoulder that she considers to be a tendinopathy, which occurred after a tennis training session 1 week ago. She is unable to get rid of it despite taking NSAIDs. She also reports increasing pain in the left iliac fossa area, which she relates to her long-standing painful periods and endometriosis.
History: Left ACL surgery in 2010 (skiing accident).

Jay Z. takes the case history and explores the shoulder pain very thoroughly. At the mention of his patient's gynaecological symptoms he blushes, stammers and quickly moves on. As diagnostic hypotheses he mentions joint pain, a muscle tear, tendinopathy, nociceptive muscle pain and bursitis. Palpation of the supraspinatus tendon triggered the pain exactly, so he opted for a tendinopathy as suggested by the patient herself and carried out a global treatment of the shoulder girdle, A high thoracic HVT and a treatment of the uterin fascia which, according to him, because of the endometriosis, would have lost elasticity and would pull on the patient's central tendon and therefore on her entire scapular fascial chain, thus facilitating the occurrence of shoulder tendinopathy.

2- ATTITUDE BIAS

= UNEASINESS OR INSECURITY DUE TO A SITUATION OR EXCESSIVE CONFIDENCE WHICH DISTORTS CLINICAL REASONING

REMEDIAL SOLUTION?

Case 3

42-year-old woman, financial auditor, complains of left fronto-orbital headaches of fairly recent onset, accentuated by fatigue at the end of the day. She wonders if it could be due to the cervical osteoarthritis that a doctor told her she had last year. She would also like your advice as she has had difficulty mobilising her neck for a few days.
ATCD: glasses with strong correction, scaphoid fracture while skiing 15 years ago, operation for a uterine fibroid, 2 children, smoker, taking an oral contraceptive

Brad P., who has just finished his internship at the Poissy hospital emergency room, finishes his medical history and asks one of his observers, with a drop of sweat beading on his forehead, to go out and find a tutor. The observer returns without having found a tutor on the clinical floor (although he did not go to the coffee machine on the other side of the floor). Brad then decides to write a letter to his patient and asks her to go directly to the Delafontaine Hospital emergency room as he suspects meningitis.

3- COGNITIVE BIAS

= STUDENT INTERNAL FACTOR INFLUENCED BY RECENT CONTEXT AND EXPERIENCES THAT DISTORT THE OBJECTIVITY OF HIS CLINICAL REASONING BY IMPAIRING THE ADAPTABILITY OF HIS REASONING

REMEDIAL SOLUTION?

Case 4

A 49-year-old woman, consultant, complains of frequent episodes of interscapular pain, which, when severe, even hinders her breathing. However, she has her back massaged at home every week. It gives some relief... and then it comes back. She also complains of lower back pain that can go down into each buttock, up and around the abdomen and then back down into the lower back in a figure of eight.
ATCD: reduction of the stomach, 4 children including 2 sets of twins, no physical activity, divorced, migraine sufferer since ever.

David B. takes a thorough history to explore the two reasons for consultation in record time. Everything is examined, the associated signs, the night, the day, the analgesic positions, the movements reproducing the pain, the complementary examinations considered necessary and the treatments already followed for this reason. His diagnostic hypotheses are: nociceptive pain of the RD, nociceptive muscular pain, nociceptive pain of an intercostal nerve, costo-vertebral syndrome, referred pain, GERD, disc pain, facet syndrome, SI pain, nociceptive muscular pain, referred pain. His arsenal of specific tests leads him, exhausted but delighted, to nociceptive pain of the thoracic and lumbar spine. His treatment will consist of manipulating everything that can be manipulated.

4- INEXPERIENCE BIAS

= DOES NOT ADAPT TO THE PATIENT IN FRONT OF HIM, REMAINS TOO ACADEMIC, LACKS PERSPECTIVE

REMEDIAL SOLUTION?

Case 5

33-year-old man, former amateur rugby player, 1.90m for 100kg. Commercial, 5 hours/day in the car. Good living, slightly overweight due to numerous business meals.
Right shoulder pain since 15 days after a fall while cycling. Active range of motion normal on the left, slightly reduced on the right.
Past history: dislocation of left shoulder 3 years ago.
He also complains of neck pain, with occasional sensations of numbness in the right arm. He feels tired at the moment following a change of job.

Angelina J. takes a history and at the end of it mentions a glenohumeral or acromioclavicular sprain, a contusion, muscle nociceptive pain and glenohumeral nociceptive pain. His clinical examination does not show any clear pain on the specific tests arising from his diagnostic hypotheses, he suggests central sensitisation due to the patient's change of work and decides on a craniosacral treatment.

5- THE BIAS OF IGNORANCE OF CLINICAL REASONING

- DOES NOT SELECT KEY ELEMENTS
- DOES NOT ASK KEY QUESTIONS EARLY ON
- HISTORY NOT FOCUSED ON PATIENT'S COMPLAINT
- HISTORY TOO SHORT OR TOO LONG
- IRRELEVANT QUESTIONS
- PREMATURE CLOSURE OF DIAGNOSIS HYPOTHESIS
- *REMEDIAL SOLUTION?*

Case 6

A 65-year-old man, a retired fighter pilot, suffers from a good sciatica that throws him down his left leg from his lower back. It has been a good month already, he has had 20 physiotherapy sessions (massages, ultrasound), has taken painkillers and NSAIDs which provide temporary relief. It happened quite simply, while tying his shoes in the RER. He feels his buttock going numb over time, he sometimes has cramps on the back of his thigh, movements can trigger the pain as well as alleviate it sometimes, he has difficulty finding an analgesic position. Recent X-rays have shown osteoarthritis and a lumbosacral pinch. This reminds him of what his aunt Edwige had presented. She also had a good osteopath who retired and hadn't really studied, but it's true that in the Doubs, their region of origin, it's not easy to get into higher education, and her nephew Edmond never did, which didn't stop him from taking over the family farm, which is tending to wither away, as the situation of farmers is no longer what it used to be, but at the same time, when you see the price of milk, it's no exaggeration, do you drink milk?

Forty minutes later, Leonardo DC . evokes disc pain, facet syndrome, SI pain, muscle nociceptive pain, nerve nociceptive pain, neuropathic pain, referred pain. His treatment plan will be discussed next time given the timing, time to find out about the condition of milk in France.

6- THE MANAGEMENT OF THE PATIENT INTERVIEW BIAS

= DIFFICULTY IN FRAMING THE PATIENT AND IN NOT LETTING HIMSELF BE OVERWHELMED

REMEDIAL SOLUTION?

Case 7

28 year old male osteopath complains of neck pain since breaking his right clavicle playing rugby 15 months ago. It pulls all the way from the trapezium to the shoulder.
The medication given by his doctor does not help.
Past history: G meniscectomy, appendicitis, bruxism. Will get married in 1 year.

Kate W. takes his history, talks to him about his little neck, his muscles that give him a hard time, says that he reminds her of her little boy who is also quite a pain in the neck. She tries to get information from her patient during the history, but the patient is very resistant and does not give any more indications to her practitioner, while she continues to smile at him in a totally benevolent and reassuring way.

7- COMMUNICATION BIAS

= ADAPTATION OF VERBALISATION TO THE PATIENT IN ORDER TO SET UP EFFECTIVE COMMUNICATION STRATEGIES

REMEDIAL SOLUTION?

Case 8

A 22-year-old male firefighter complains of acute right lateral lumbar pain following a recent move. He does not remember carrying anything heavy, but he remembers going back and forth on the stairs. He smokes a little, is 182 cm tall and weighs 84 kg, has no particular history of illness and is in good general condition despite disturbed sleep due to his working hours.

Kate M. begins her history with her eyes fixed on her screen, questions in perfect order the onset of the pain, its course, its rhythm, the course, the functioning of the associated spheres, the patient's history and at the moment of exploring his context BPS unluckily crosses his gaze and realising that he is smiling at her, goes into immediate tachycardia At the end of her history she mentions erector nociception and does not see what else it could be. You then put her on the path of the other relevant HD and leave the consultation. She comes out of her room after twenty minutes, has the patient adjusted and assures you in debriefing that her hypothesis was confirmed by her specific tests and that her treatment consisted of paravertebral soft tissue. She did not rebook him, certain of his effectiveness.

8- RELATIONSHIP DYNAMICS BIAS

= BIAS IN THE PATIENT-PRACTITIONER RELATIONSHIP, IN THE POSITIONING OF ONE IN RELATION TO THE OTHER

REMEDIAL SOLUTION?

Case 9

Patient 50 years old, dental technician, complains of very frequent right occipital pain that can only be relieved by neck massage or painkillers. He also has, but less frequently, lumbago which can occur without warning with buttock pain but which never lasts very long.
ATCD: ACL operation, stress, recent divorce
Sport: running bike 100Km/week

You enter Cardi B.'s consultation room during his clinical examination. Your eyes meet, she stops immediately and drops her patient instantly, turns around to consult her files on her desk, drops them on the floor and presents her patient to you: "I present to you Mr. What's-his-name, who is consulting me for headaches and what else, ah yes, a lumbago, he is 60 years old, ah no, 50, sorry, sir, I started with a diagnostic hypothesis, but I forgot to tell you that my patient is divorced. You nod half politely, half worried, and a completely disjointed clinical examination follows, punctuated by a "I couldn't reproduce the pain, I'm going to do a TGO". On his Neurastill you read "HD: Migraine, headache, joint pain, facet syndrome, nociceptive muscle pain, referred pain". You leave, yourself very unsettled by what has just happened in this consultation.

9- LEARNER-TEACHER RELATIONSHIP BIAS

= BIAS IN THE PEDAGOGICAL RELATIONSHIP, PERFORMANCE ANXIETY OR UNREALISTIC EXPECTATIONS ON THE PART OF THE TEACHER

REMEDIAL SOLUTION?

FOUR TYPES OF DIFFICULTIES

- Lack of knowledge
- Internal factors
- Lack of skills
- Inter-relational factors

9 TYPES OF BIAS

Lack of knowledge

- Knowledge
- Ignorance of clinical reasoning

Internal factors

- Attitude
- Cognitive
- Inexperience

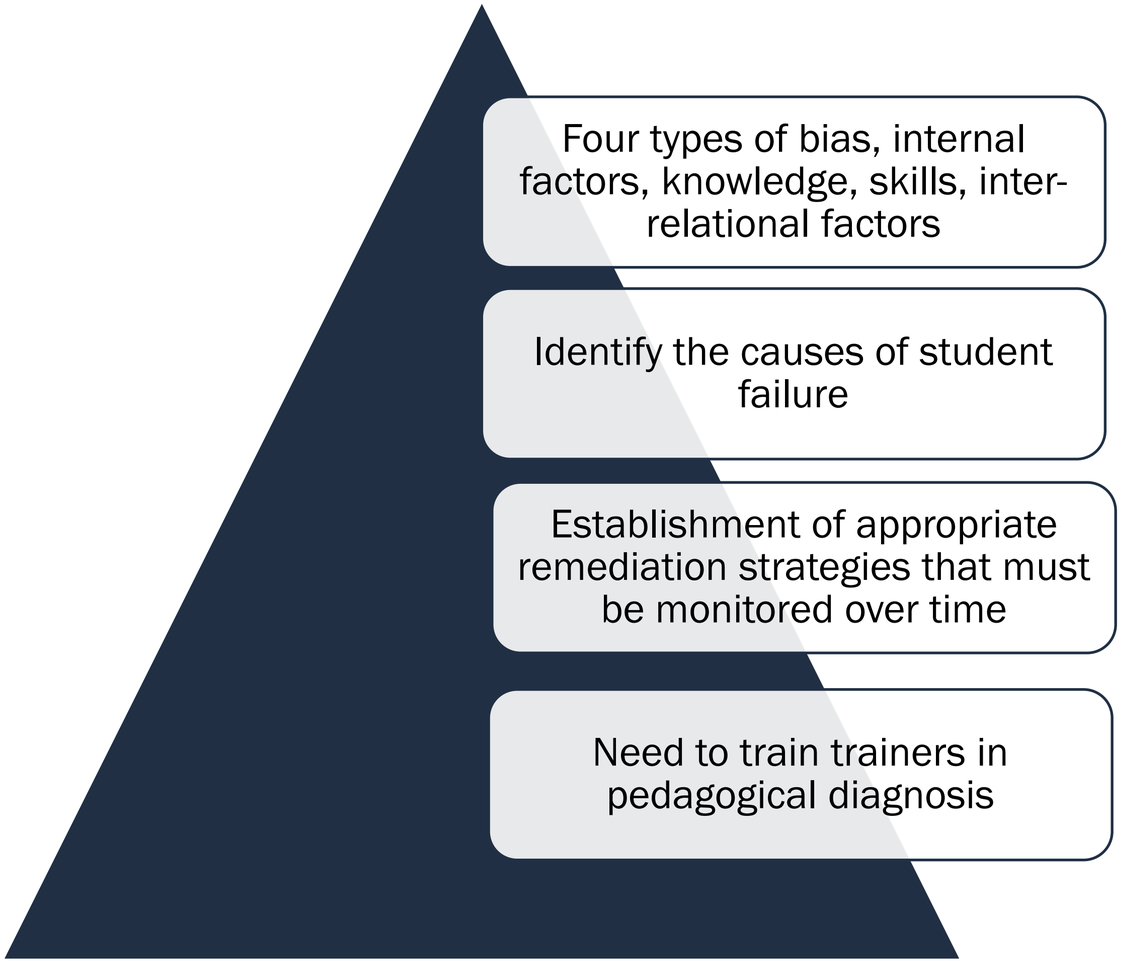
Lack of skills

- Managment of the patient's interview
- Communication skills

Inter relational factors

- Relationship dynamic
- learner-teacher relationship

CONCLUSION


Four types of bias, internal factors, knowledge, skills, inter-relational factors
Identify the causes of student failure
Establishment of appropriate remediation strategies that must be monitored over time
Need to train trainers in pedagogical diagnosis

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ANY QUESTIONS?