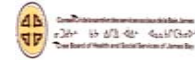# Assessment of dental clinicians perceptions on ICDAS system transfer

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Background

- Resistances to implementing evidence-based practice through knowledge and skills transfer remains a modern challenge, particularly in dental science. (Bauer J. et al., 2005)
- The scientific dental community in DPH identified ICDAS system as the modern caries detection index to use for research projects and surveys as well as in clinics and academic domains (Pitts N., 2004)
- Although the ICDAS system has existed for a few years and is being increasingly adopted among scientists for surveys on dental caries prevalence (Sohn W. et al., 2007), its adoption by clinicians and academic practitioners remains, to our knowledge, very limited.
- So far, no studies have looked at the perceptions of dental clinicians who may be potentially involved in the ICDAS system.
- **We conducted this piloted survey to address this question**: *What are the theoretical perceptions (benefits/resistances) of dental clinicians concerning the ICDAS index who are being trained, and can this perception be changed through a practical training?*

Sample

- ICDAS training and calibration was (FEB 2007) held in Minsk U. (Belarus), among dental department staff, We trained 11 dentist specialists without previous knowledge of the ICDAS index and with a mean experience of 14 years of professional practice.

Method

- Dependant variable: *Perceptions on the ICDAS* defined by three questions - perception of process and detection as a facilitator, areas of resistance and potential fields of application - and associated choices in each case.

- Independent variables: *Training* names and contains: 1) *Pre practical training* was defined as a theoretical training and given access to the Web ICDAS content and to slides projection on specific criteria of the system. 2) *Post practical training* consists of a practical training and calibration session in a dental clinic where 8 clinical dentists were trained with 4 of them being calibrated and the other 4 assisting them.

- Data collection: Two (pre and post) auto-administrated and same questionnaire including multiple choices listed to represent three domains of perception. Questionnaires used for data collection were translated into Russian.

Results

Clinicians' perception of ICDAS as facilitating system?	Pre practical training	Post practical training
Simpler codification	3	4
Easier for data collection	1	3
Better benefit for patient	2	4
Better theoretical background for clinical challenges	7	6
Better clinical benefit for treatment	7	6
Combining choices leads to a TOTAL of	20	24

Clinicians' reasons for resistance to ICDAS?	Pre practical training	Post practical training
Too complex for easy use	3	3
Disconnected with a day-to-day practice	7	11
Index too detailed	0	1
Dental chart too complex	0	1
No clear benefit for patient	1	2
Combining choices leads to a TOTAL of	11	18

Clinicians' perception of ICDAS as a field application?	Pre practical training	Post practical training
In clinical practice in general	1	2
In clinical practice for caries diagnosis	3	4
In clinical practice for caries treatment	1	5
In clinical practice for caries risk assessment	7	7
In research	8	11
In Public Health Dentistry (e.g.: Survey)	8	11
Combining choices leads to a TOTAL of	28	40

Discussion

Trend of the study is showing that:

- In all cases, practical training led to greater involvement (number of choices selected) in the questionnaire

- The categories chosen on ICDAS as a facilitating system are relatively unchanged pre and post practical training

- The perceived benefit of ICDAS as a facilitating system were linked to theoretical background and to the focus on clinical treatment supporting dental practitioners.

- Resistances to ICDAS increased following the practical training which strengthened the pre-training opinions to the participants

- Resistances to the ICDAS are strongly expressed in the clinical environment by its theoretical and non-practical nature and, at less degree, by its complexity.

- Clinical applications perceived before and after the practical training, did not change too much in term of the priority given to categories: ICDAS used for research and public health epidemiological survey are clearly, the most relevant fields perceived. In additional to that, it seems that clinician's pre-perceptions and practical training increase their emphasis in favour of this index for caries treatment.

Conclusion

- There is need to understand how to increase the adoption of the ICDAS index by clinicians, to explore the trainee's perception of its capacities as a facilitating tool for applications and to understand resistance to knowledge and skill transfers in this domain.

Acknowledgements