

Implementation and Uses of Outcome Measurements (OMs) in Physical Therapy



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Lecture Outline



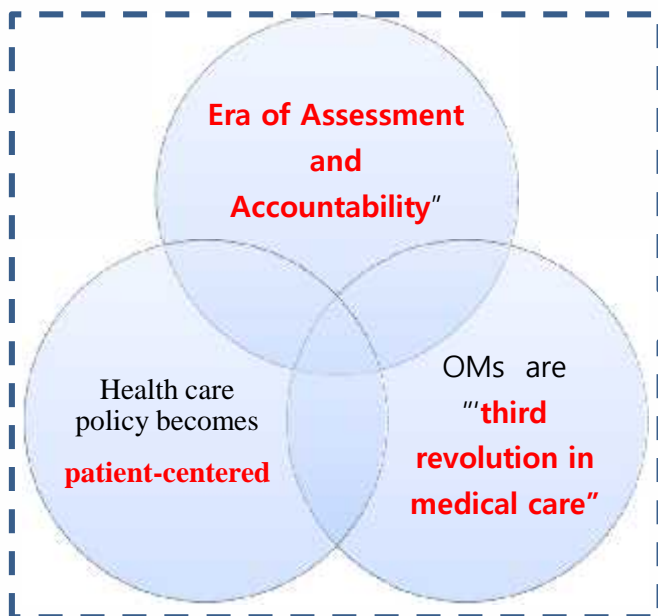
- ❖ Extent to which OMs are employed in PT and related rehabilitation practice .
- ❖ The attitudes towards use, barriers identified and facilitator by PTs in hindering the use of OMs and facilitator for promoting the use of OMs.
- ❖ The role of professional organizations policy in promoting the use of standardized OM.

Introduction



In Past: The formal use of standardized OMs was **not an integral** part of routine **clinical practice**.

In the last two decades



Physical therapy organizations started to advocate the use of OM's to their members

Promote Efficient Treatment Planning

Communicate Patient Progress

Provide Accountability

Measure Level of Satisfaction

OMs: Review of Literature



- A comprehensive review of the literature about routine use of OMs by allied health professions
- The current situation regarding the awareness and use of OM's by physical therapists in Saudi Arabia

OMs: Review of Literature



Use of OMS in Physiotherapy Practice in Canada from 1998 to 2001

The most common 5 OMs used are

Range of motion

Manual muscle test

Visual analogue scale

Berg balance scale

Goal setting

Percentage of PTs who used OMs were

In 1991 was 34%

In 1992 was 42%

In 1998 was 43%

Most common clinical setting

At admission (83-90%)

At admission and discharge (63-85%)

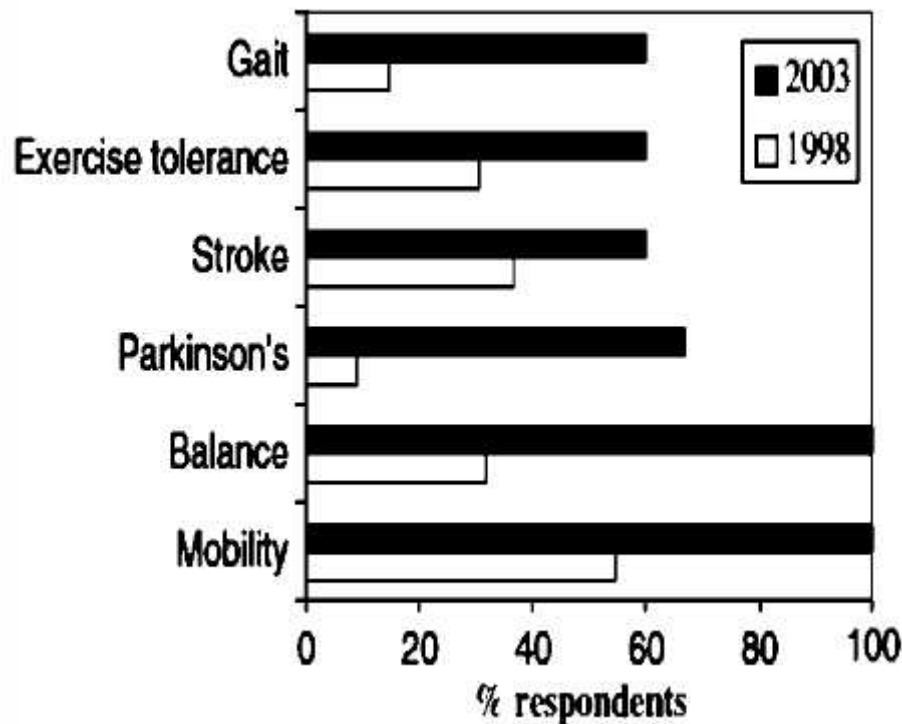
More often (38-68%)

Physiother Can 53:268–275, 281, 2001.

OMs: Review of Literature



Use of OMS in Physiotherapy Practice in Ireland from 1998 to 2003



Increase of 50% to 70% in use OMs

In 2003; 100% now use OMs in assessing mobility and balance, compared to 30–50% in 1998.

Physiother Can. 2008;60:109-116

OMs: Review of Literature



Use of OMs in rehabilitation centers in the UK

Table 1 Most frequently used instruments in each category and number of centres using them

Category	Most popular instruments	No of centres using the instrument		Moderately popular instruments	No of centres using the instrument	
		2004/05 (n = 71)	(1996/97) (n = 140)		2004/05 (n = 71)	1996/97 (n = 140)
Mobility (n = 50) 70%	10-m walk test ¹³	36 (50%)	44 (31%)	H&S mobility grades ¹⁵	7 (9%)	
	Rivermead Mobility Index ¹⁴	13 (18%)	9 (5%)	SIGAM grades ¹⁶	6 (8%)	
Upper limb function (n = 22) 30%	Nine-Hole Peg Test ¹⁷	23 (32%)	18 (13%)	Frenchay Arm Test ¹⁸	5 (7%)	
Dependency (n = 59) 83%	Barthel Index ¹⁹	42 (59%)	95 (68%)	Health Assessment Questionnaire (HAQ) ²¹	3 (4%)	16 (11%)
	FIM/UK FIM ± FAM ⁶	33 (45%)	46 (33%)			
	NPDS/NPCNA ^{8,20}	21 (28%)				
Extended ADL (n = 6) 8%	Frenchay Activities Index ²²	4 (5%)	5 (4%)	Nottingham EADL scale ²³	1 (1%)	14 (10%)
				BICRO-39 ²⁴	1 (1%)	
Client-centred outcomes and participation (n = 22) 30%	Canadian Occupational Performance Measure ⁹	14 (19%)		London Handicap Scale ²⁵	3 (4%)	9 (5%)
General health (n = 11) 15%	General Health Questionnaire ²⁶	7 (9%)	13 (9%)	EuroQoI ²⁷	1 (1%)	9 (5%)
				SF-36 ²⁸	1 (1%)	
Depression/mood (n = 28) 40%	HADS ²⁹	25 (35%)	7 (5%)	Beck Depression Inventory ³⁰	3 (4%)	
Pain (n = 25) 35%	Visual analogue scale	21 (29%)		McGill Pain Score ³¹	2 (3%)	

OMs: Review of Literature



Use of OMs in rehabilitation centers in the UK

Clinical messages

OMs are increasingly recorded in routine rehabilitation practice.

83% of respondents used either the Barthel Index, Functional Independence Measure or the UK FIM and/or Functional Assessment Measure.

Goal attainment is also increasingly recorded.

OMs: Review of Literature



Use of OMs in Australian rehabilitation environments

Measure	LBP <i>n</i> (%)	WAD <i>n</i> (%)	SCL <i>n</i> (%)	NMD <i>n</i> (%)	TBI <i>n</i> (%)	Stroke <i>n</i> (%)	ULA <i>n</i> (%)	LLA <i>n</i> (%)	Burns <i>n</i> (%)
ROM	279 (85.1)	195 (85.5)		171 (85.1)				115 (89.1)	56 (84.8)
MMT	220 (67.1)	143 (62.7)	93 (78.2)	151 (75.1)				100 (77.5)	
FIM TM	88 (26.8)		73 (61.3)	96 (47.8)	74 (50.7)	108 (51.4)	16 (28.1)	74 (57.3)	19 (28.8)
MBI			23 (19.3)	45 (22.4)	34 (23.3)	59 (28.1)		32 (24.8)	12 (18.2)
COPM	36 (11.0)			30 (14.9)			11 (77.5)	21 (16.3)	8 (12.1)
SF-36	49 (14.9)	22 (9.6)				17 (8.1)			
BBS				56 (27.9)	25 (17.1)	67 (31.9)			
MP-S	81 (24.7)	52 (22.8)					11 (77.5)		
VAS	216 (65.9)	156 (68.4)	34 (28.6)					43 (33.3)	
RBM					39 (26.7)	43 (20.5)			

J Rehabil Med 2005; 37: 325–329

OMs: Review of Literature



Use of OMS in among 1,000 members of APTA

A 3D rendered graphic of the number "48%" in a dark grey, metallic-looking font, enclosed within a blue circular border. The numbers are slightly offset and have a shadow beneath them.

48%

The most common OMs used

- ODI (41.3%)
- LEFS (18.8%)
- DASH (18.3%)
- BBS (7.9%)

Physical therapy 2009;89:125-135.

OMs: Review of Literature



Use of OMs among Physiotherapy Practice in KSA, 2017

The most common OMs used

43% used NRP+VAS

35% used FIM.

31% used BBS

22% used ODI

17% used 6MWT &TUG

5% used RMDI &KOOS

Percentage of PTs who used OMs were

111/180 (62%) of therapists
used OMs in practice

BMC Health Services Research (2017) 17:748

OMs: Review of Literature



Use of OMs among Physiotherapy Practice in in Ontario, Canada

Survey of **63 physical**, 72 occupational, and 74 speech-language therapists working in one of **16 children's rehabilitation programs** in **Ontario, Canada**

The most common OMs are

GMFM	28.4%
AIMS	18.9%
ROM	18.3%
PDMS	13%
GMFCS	7.1%
PEDI	1.8
GAS or MAI	1.2 %

Percentage of PTs who used OMs were

59% used OMs daily to weekly

10.7% used OMs only a few times per year or less

Most common

Purpose for uses

Screening or Assessment (79-100%)

Prediction- Prognosis (5-100%)

Progress, Tx Plan, Tx Change (82-100)

Physical & Occupational Therapy in Pediatrics, Vol. 27(2) 2007.

Benefits of Using OMs



Documentation in electronic records and information systems

Communicating with other health care providers

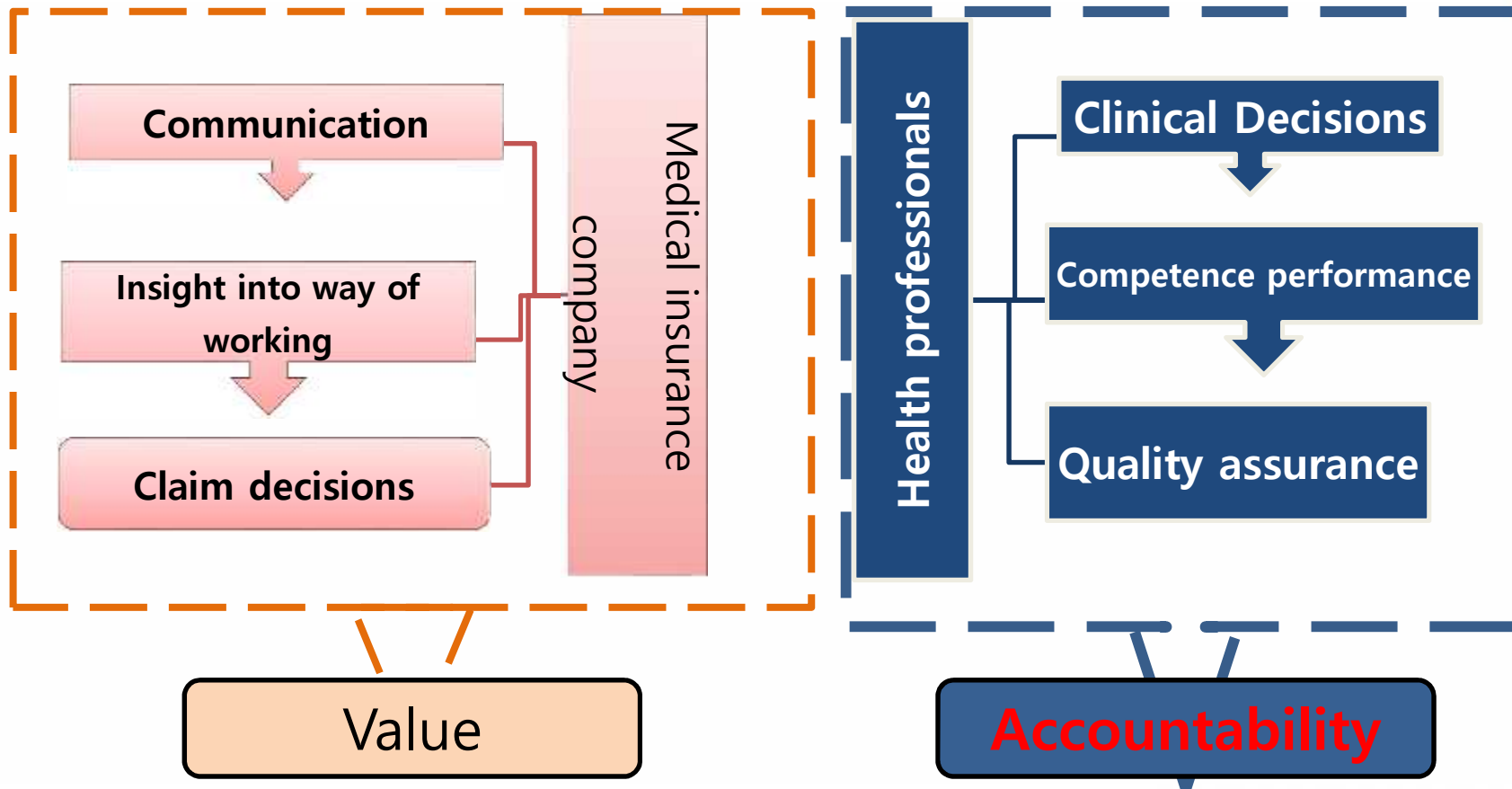
Establish a patient's baseline status and progress in a quantifiable manner

Track a patient's progress to determine the effectiveness of the plan of care and improve care.

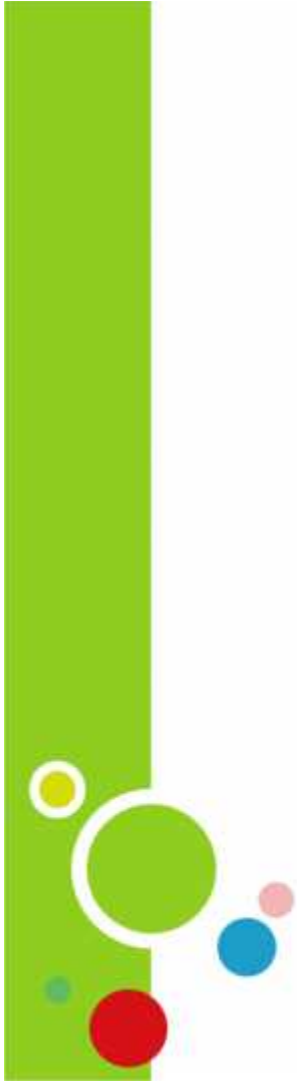
Comparing patient outcomes across conditions

Development of clinical knowledge and professional education facilities using and designing research

Benefits of Using OMs



Barriers to use of standardized
outcome measures



Barriers to Use Outcome Measurements



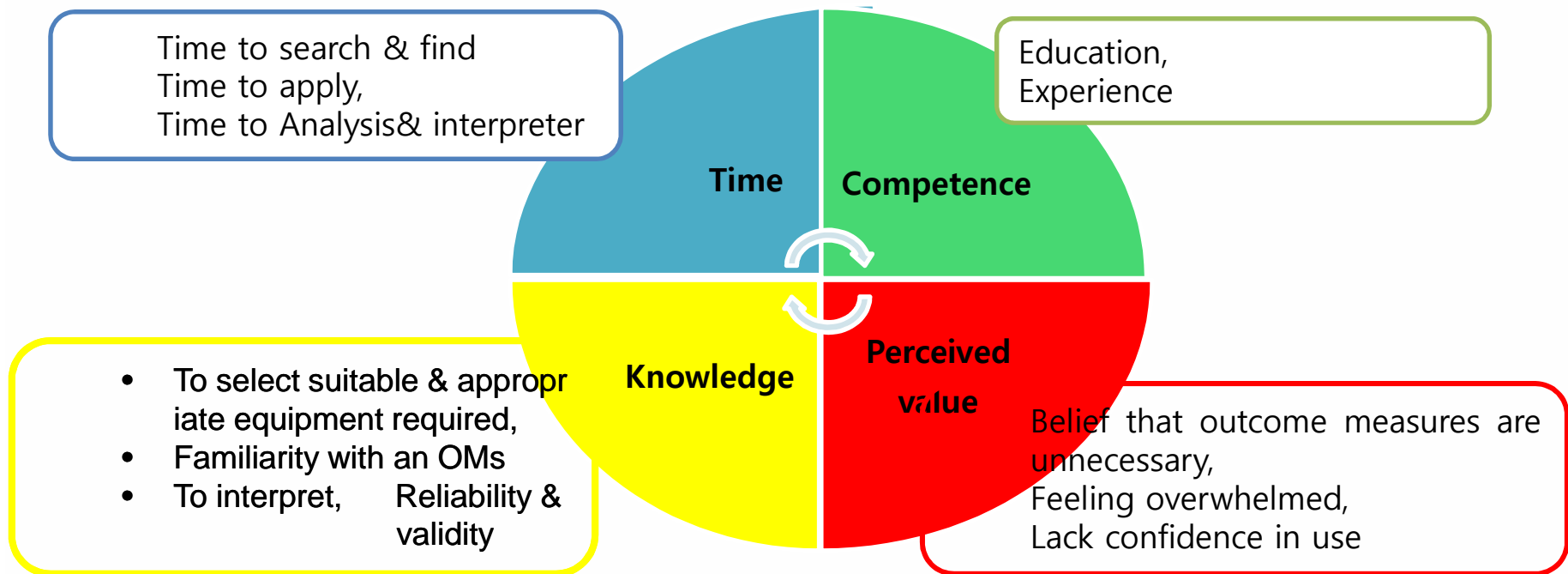
**B1-Knowledge, education, and perceived value
in outcome measurement**

B2-Facility influence for outcome measure use

B3- Practical considerations

B4- Patient considerations

Barriers to Use Outcome Measurements



Barriers to Use Outcome Measurements

Facility influence for outcome measure use

Time and costs

General time constraints

Requiring technology staffing

Access to database at work/search

Culture & policy

Health policy

Management support

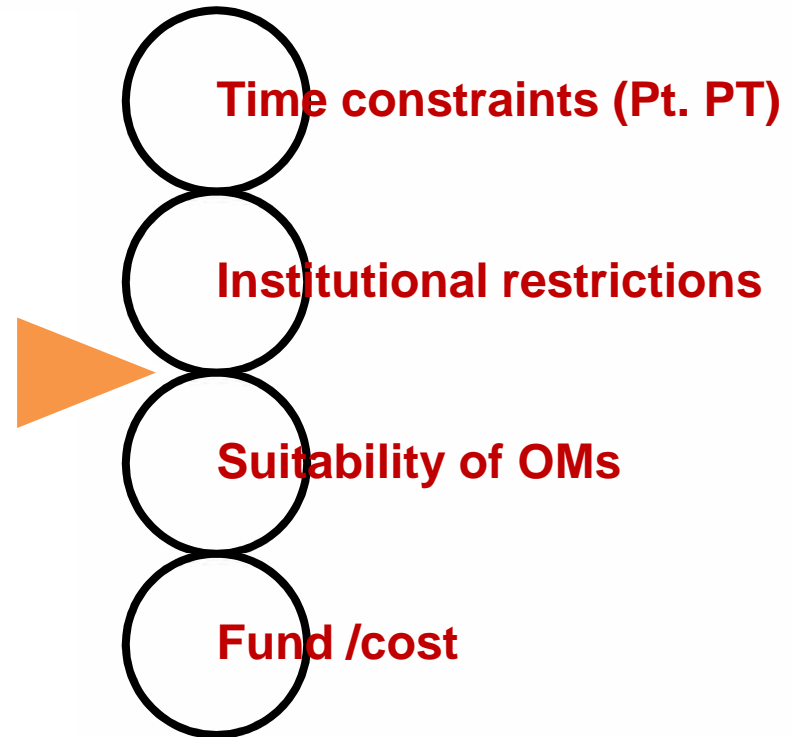
Co-operation of colleagues

Barriers to Use Outcome Measurements

Practical considerations



Relates to practical issues & considerations relating to the use of routine outcome measurement in practice.



Barriers to Use Outcome Measurements

Patient considerations

B4 relates to clinicians' concerns about using outcome measures with and for their patients..

Provide subjective information

Don't help to inform or direct patient care

Clinicians' concerns about patients' ability to complete OMs



Facilitators to
Outcome Measurement

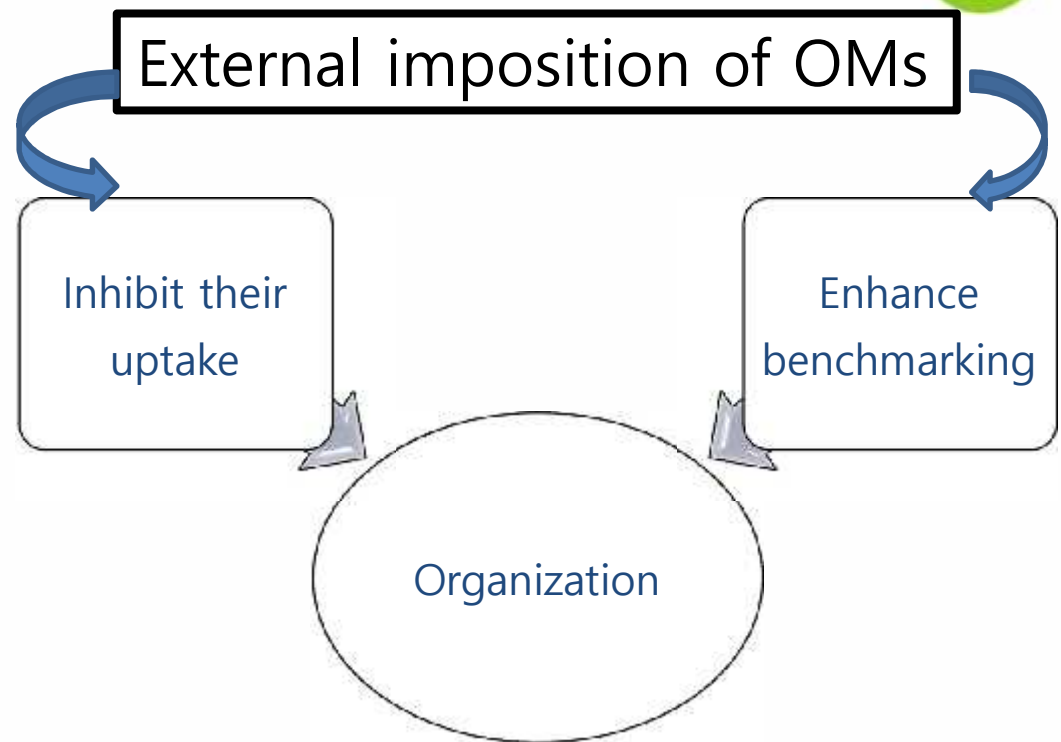
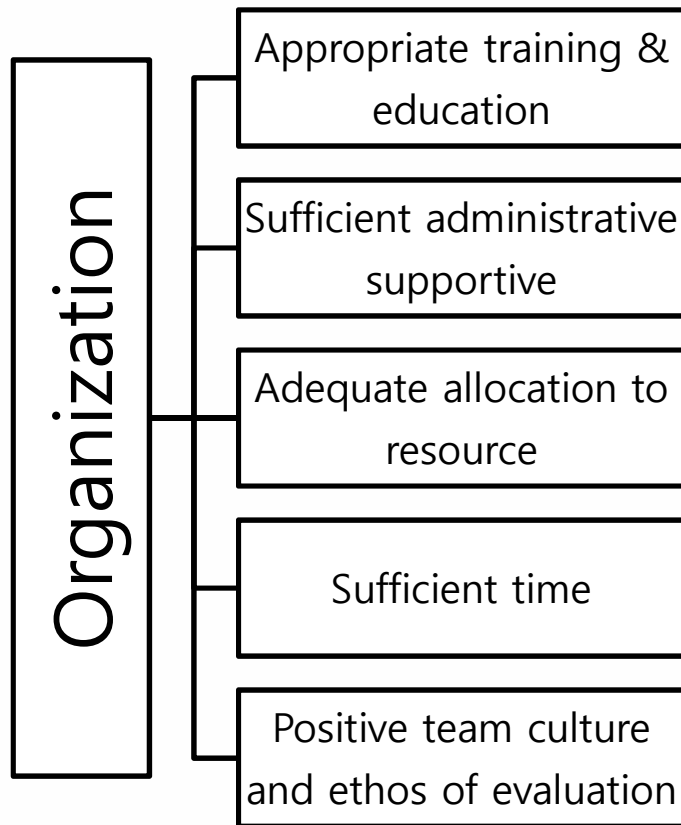


Facilitators to use Outcome Measurement

Achieving successful use of standardized OMs in clinical practice appear to be multi-level that require information and collaboration between

- ❖ Organizations,
- ❖ Individuals

Facilitators to use Outcome Measurement



Facilitators to use Outcome Measurement



Chartered Society of Physiotherapy (CSP),



Canadian Physiotherapy Association (CPA)



Physical therapy outcome registry (<http://www.ptoutcomes.com/home.aspx>)



World confederation of physical therapy (<https://www.wcpt.org/node/29658>)



European Standardization of Outcome Measurement in Rehabilitation” (Pro-ESOR),



[Center for Rehabilitation Outcomes Research](#) [Rehabilitation Institute of Chicago](#)



Rehabilitation Measures Database

Facilitators to use Outcome Measurement



European Region of the World Confederation for Physical Therapy

Core Standards

Standard 6: taking account of the patient's problems, a published, standardized, valid, reliable and responsive outcome measure is used to evaluate the change in the patient's health status

- **Criteria 6.1:** The physiotherapist selects an outcome measure that is relevant to the patient's Problem
- **Criteria 6.2:** The physiotherapist ensures the outcome measure is acceptable to the patient. The physiotherapist selects an outcome measure that he/ she has the necessary skill and experience to use administer and interpret
- **Criteria 6.6:** The result of the measurement is recorded immediately
- **Criteria 6.7:** The same measure is used at the end episode of care.

Facilitators to use Outcome Measurement



Individual

Positive attitude and responsibility

Academic degrees and clinical setting exposure

Education and training about OMs

Social interaction within work place

Convinced of the benefits of the use of measurement instruments

Patients: require objective instruments to evaluate the treatment process

Thank You !!

