

A STUDY ON PREDICTORS OF PREVENTION PROGRAMS EFFECTIVENESS



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With high-quality preventive interventions a wide variety of mental, emotional and behavioural problems of children and youth can be reduced including:

- violence and delinquency (Botvin, Griffin and Nichols, 2006)
- tobacco and alcohol use (Tobler and Stratton, 1997)
- risk sexual behaviour (Kirby et al. 1994)
- depression, anxiety and other emotional problems (Hawkins, Kosterman, Catalano, Hill and Abbott, 2005; Hosman et al., 2004).



MODERATLY EFFECTIVE

HIGHLY EFFECTIVE

NO IMPACT OR LOW IMPACT

UNDESIRABLE IMPACT

EVIDENCE ON INTERVENTION
EFFECTIVENESS IS CRUCIAL



- Despite improvements in quality assessment research, not enough attention is given to **quality assurance** in order to maximize programs' effectiveness.
- Available scientific knowledge from earlier successful and unsuccessful trials to prevent MBE problems and to promote mental health offers **learned lessons** for designing and implementing effective programs.
- Determinants of an intervention's impact or effect are referred to as:
“effect predictors” or “effect moderators”
(Hosman and Engels, 1999; Raphael, 1999; Hosman, 1994).



theoretical background

infrastructural support from
management

evaluation - high quality
research methods

implementation
quality

EEFFECT PREDICTORS

program deliverers' training
and support

clear goals and objectives

program fidelity

adaptation

intervention methods ...

PROJECT

»Preffi – Quality Assurance in the County of Istria«

TRAINING FOR PREVENTION

- Can the training on the principles of effective prevention increase programs' effectiveness?

WRITTEN PREVENTION PROGRAMS' PROPOSALS

- Can a quality of written program's proposal predict program's effectiveness?



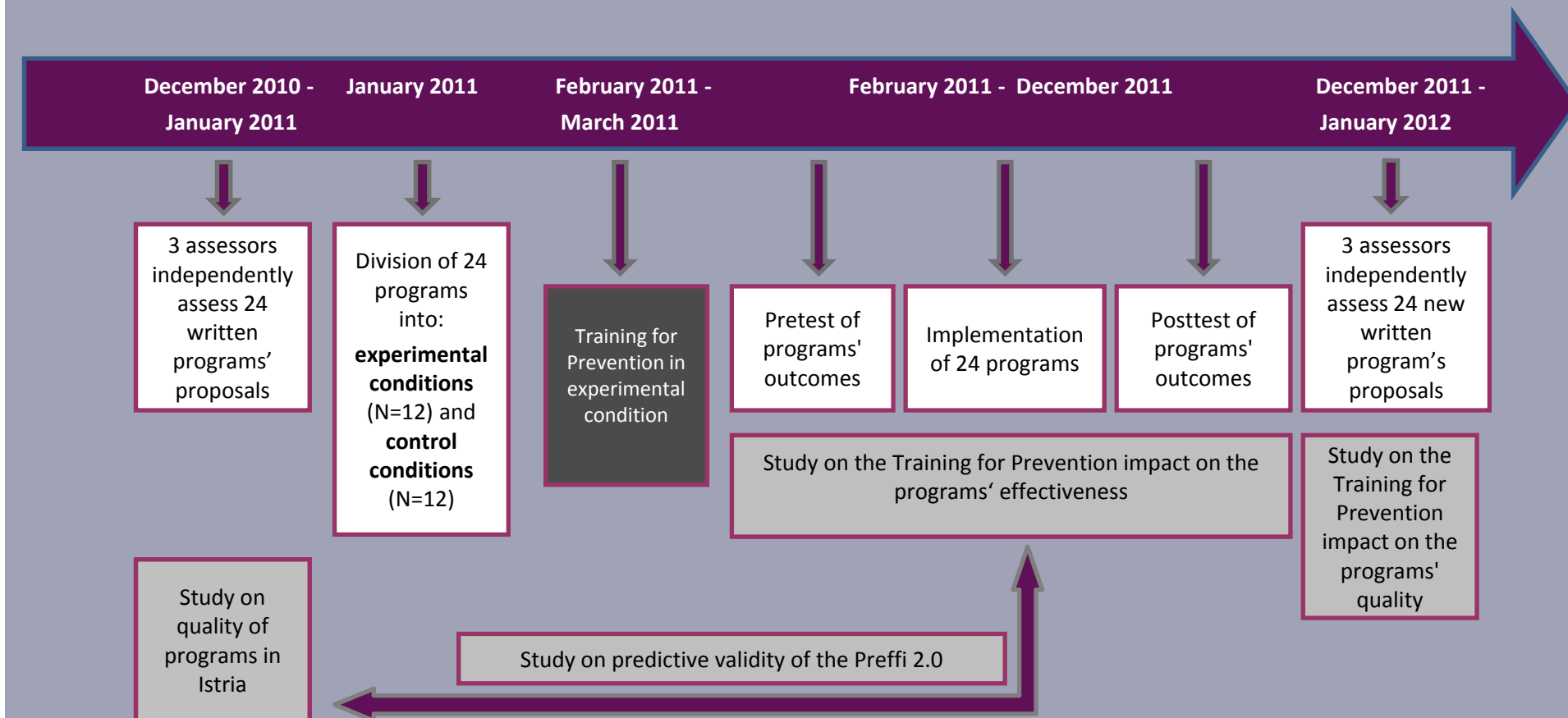
Mental Health Promotion and Prevention Programs Involved Into a Study



CODES OF THE PROGRAMS

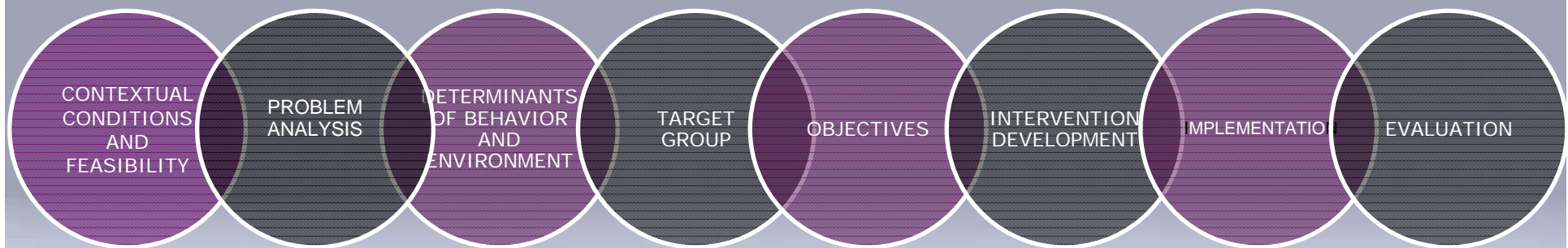
- | |
|---|
| (1) MH promotion through the theatre |
| (2) Mentoring program |
| (3) Parenting program I. |
| (4) Media literacy |
| (5) Training for the group leaders |
| (6) Substance abuse prevention for parents |
| (7) Substance abuse prevention for teachers |
| (8) Pa |
| (9) Pa |
| (10) P |
| (11) S |
| (12) C |
| (13) F |
| (14) P |
| (15) P |
| (16) Self-confidence training |
| (17) Substance abuse prevention |
| (18) Parenting program VI. |
| (19) Underage drinking prevention |
| (20) MH promotion through volunteerism |
| (21) MH promotion through dance |
| (22) Creative free time program II. |
| (23) Parenting program VII. |
| (24) Parenting program VIII. |

- PARENTING PROGRAMS
- SUBSTANCE ABUSE PREVENTION PROGRAMS
- SOCIAL SKILLS DEVELOPMENT PROGRAMS
- PROMOTION OF MH

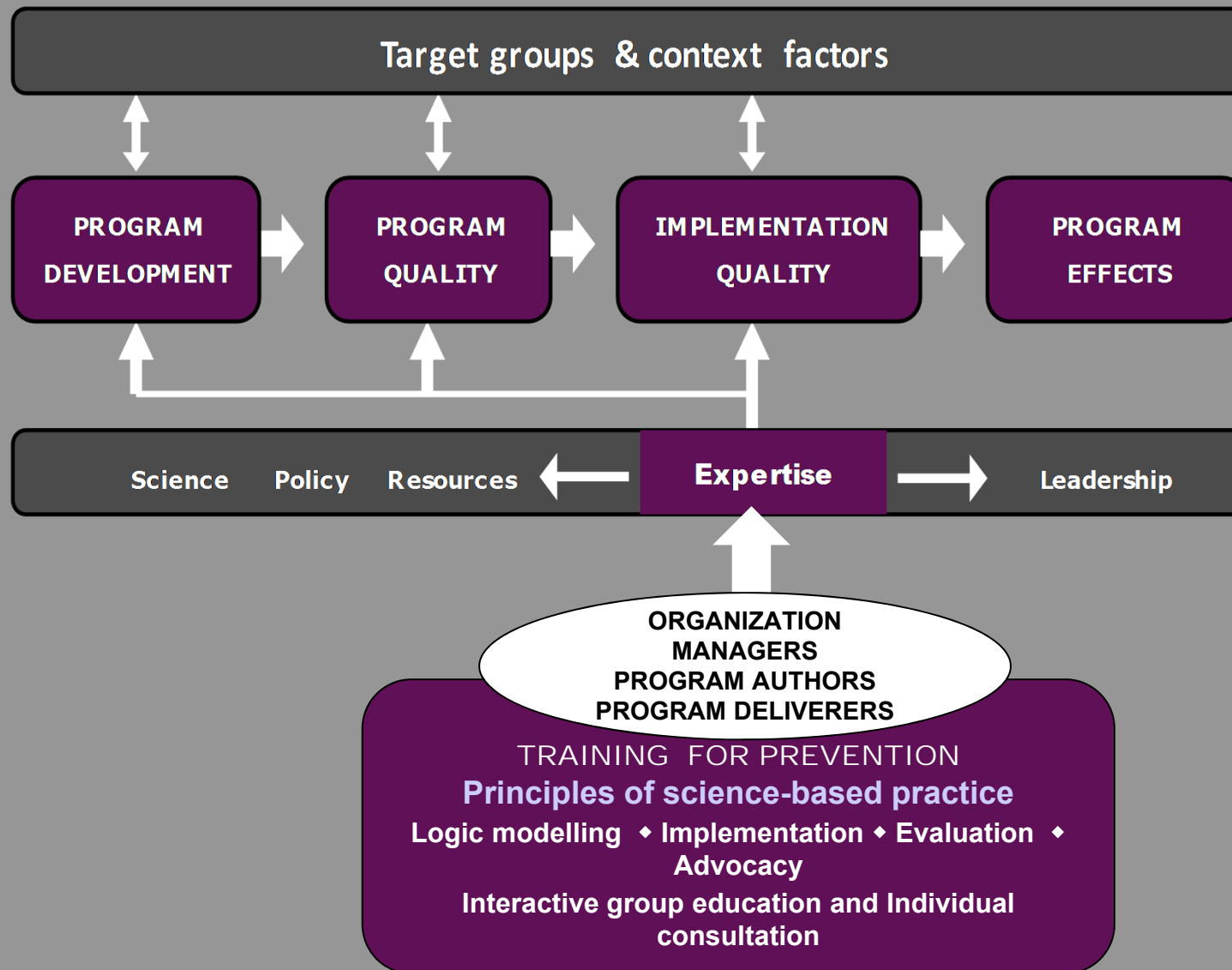


PREFFI 2.0 – Health Promotion Effect Management Instrument

- developed by a group of experts from the Netherlands (Molleman et al., 2005a, 2005b)
- Instrument for assessing conditions for effectiveness and developing quality programs
- 39 quality criteria – effect predictors, subdivided into 8 clusters:



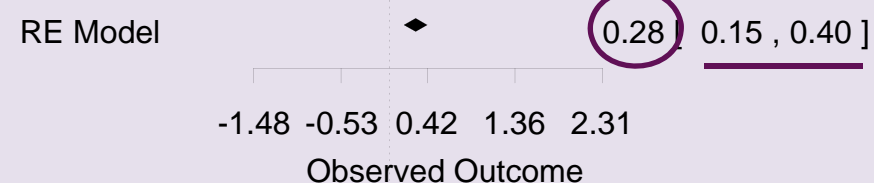
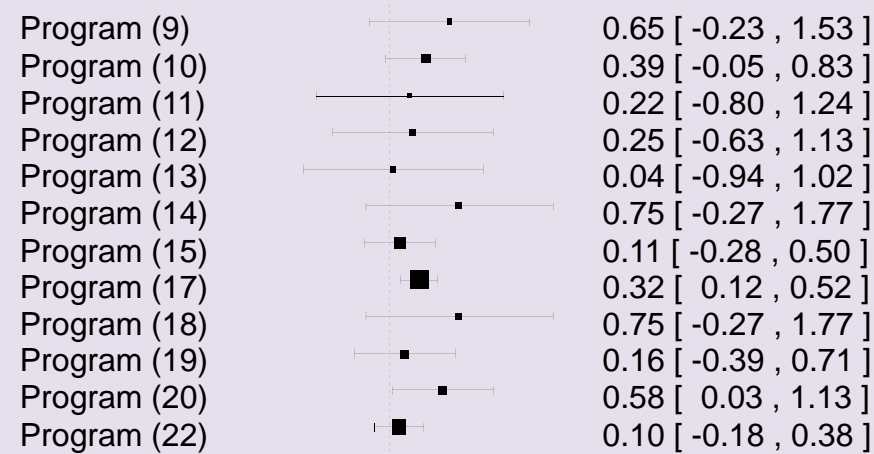
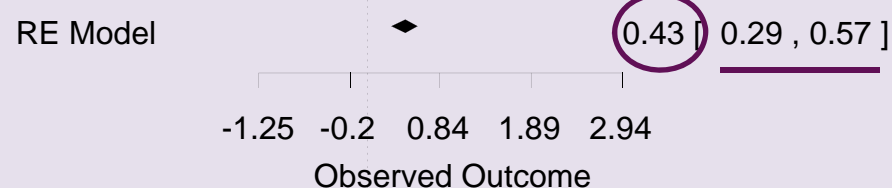
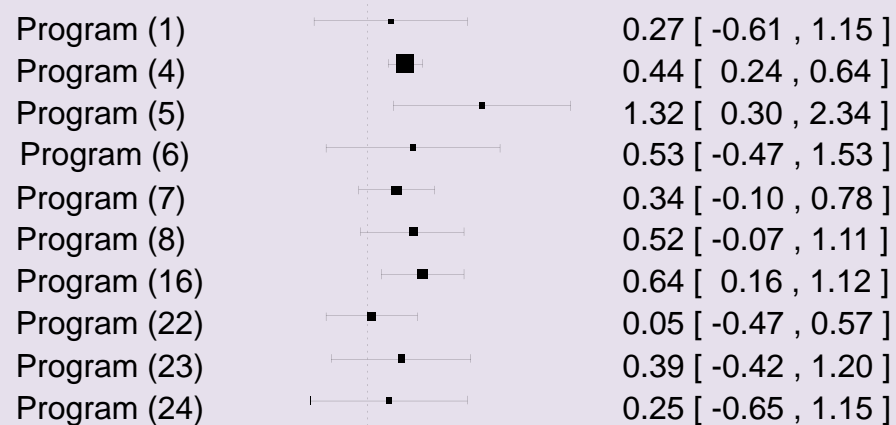
MODEL OF A PROJECT



RESULTS AND CONCLUSIONS



INFLUENCE OF THE TRAINING FOR PREVENTION ON PROGRAMS' EFFECTIVENESS



Random-Effects Meta-Analysis

INFLUENCE OF THE TRAINING FOR PREVENTION ON PROGRAMS' EFFECTIVENESS

Univariate Effects for Moderators

MODERATORS	β	SE	z	p-value	95% CI
Training for prevention	0.15	.10	1.58	.11	(-0.04 - 0.34)
Alpha	0.01	.10	0.13	.90	(-0.18 - 0.21)
Aim of program	-0.02	.11	-0.21	.83	(-0.23 - 0.18)
Program's intensity	-0.11	.10	-1.08	.28	(-0.30 - 0.09)
Beginning of the program	-0.13	.14	-0.89	.37	(-0.40 - 0.15)

INFLUENCE OF THE TRAINING FOR PREVENTION ON PROGRAMS' QUALITY

Results of the Repeated Measures Analysis of Variance on Preffi Scores

CLUSTER 1 – “Contextual conditions and feasibility”			
SOURCE OF VARIABILITY	F	df	P
Measurement	24.385	1	.000**
Measurement x Group	.799	1	.383
CLUSTER 2 - “Problem analysis”			
SOURCE OF VARIABILITY	F	df	p
Measurement	5.769	1	.027*
Measurement x Group	2.877	1	.106
CLUSTER 3 – “Determinants of behaviour and environment”			
SOURCE OF VARIABILITY	F	df	p
Measurement	5.562	1	.029*
Measurement x Group	6.457	1	.020*
CLUSTER 4 – “Target group”			
SOURCE OF VARIABILITY	F	df	p
Measurement	4.934	1	.039*
Measurement x Group	3.683	1	.070

INFLUENCE OF THE TRAINING FOR PREVENTION ON PROGRAMS' QUALITY

CLUSTER 5 - "Objectives"			
SOURCE OF VARIABILITY	F	df	p
Measurement	1.203	1	.286
Measurement x Group	5.905	1	.025*
CLUSTER 6 - "Intervention development"			
SOURCE OF VARIABILITY	F	df	P
Measurement	25.106	1	.000**
Measurement x Group	19.000	1	.141
CLUSTER 7 - "Implementation"			
SOURCE OF VARIABILITY	F	df	P
Measurement	49.517	1	.000**
Measurement x Group	.964	1	.339
CLUSTER 8 - "Evaluation"			
SOURCE OF VARIABILITY	F	df	P
Measurement	1.708	1	.207
Measurement x Group	7.547	1	.013*
TOTAL PREFFI RESULT			
SOURCE OF VARIABILITY	F	df	P
Measurement	16.573	1	.001**
Measurement x Group	4.182	1	.055

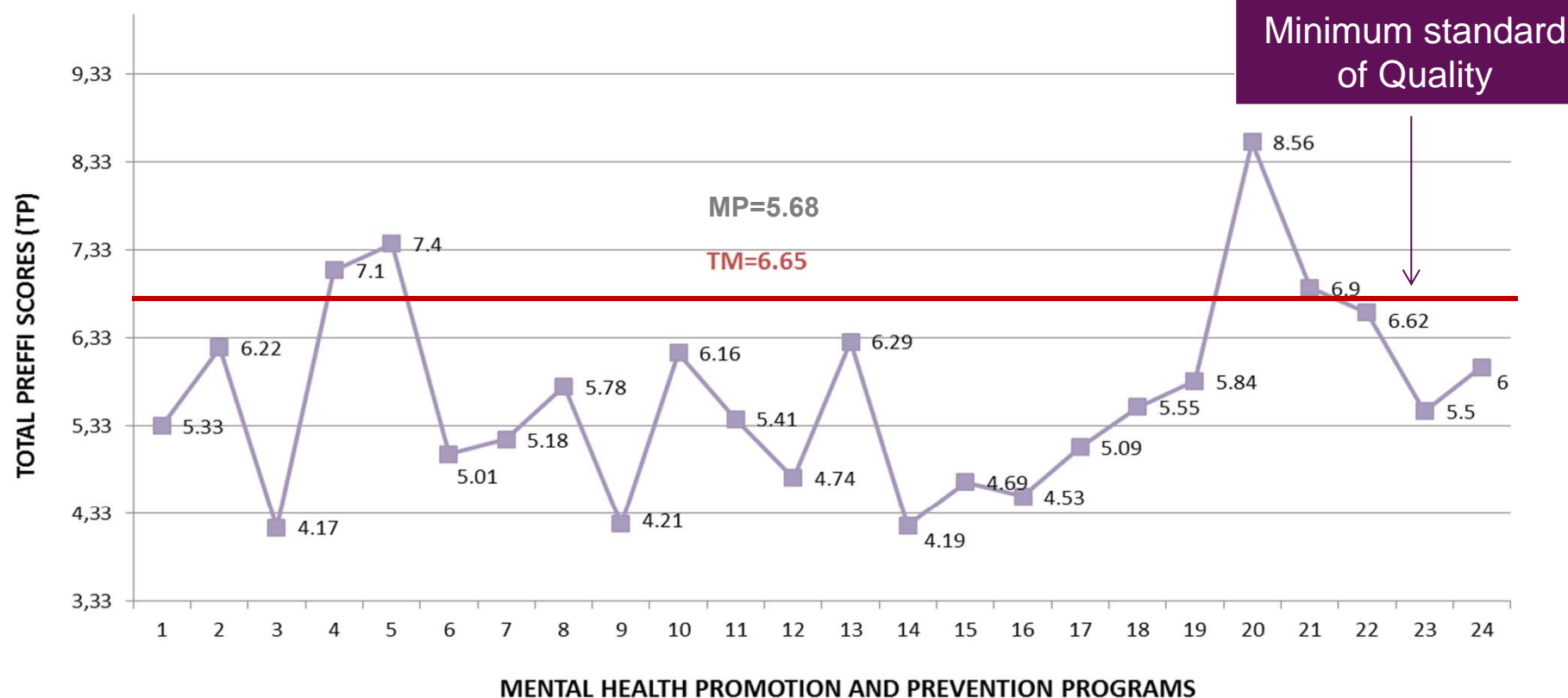
Programs' managers and deliverers involved in the Training, didn't achieve significantly higher total scores on the Preffi 2.0 comparing to the managers and deliverers from control condition.

Training significantly improved the level of quality in which managers and deliverers:

- **SELECT AND DESCRIBE THE DETERMINANTS OF BEHAVIOUR AND ENVIRONMENT** which they want to influence with their programs,
- **select and define the OBJECTIVES** of their programs,
- **plan and describe the EVALUATION** process of their programs.



QUALITY OF MENTAL HEALTH PROMOTION AND PREVENTION PROGRAMS IN ISTRIA



MP= average mean of total Preffi scores for 24 programs
TM= theoretical mean of possible total Preffi scores' range

STRENGTHS

Objectives are acceptable
Objectives are feasible
Objectives fit in with the analysis
Expertise and characteristics of p
Support and commitment
Previous experiences with the intervention(s)
Fitting to intermediary target groups
Incorporation in the existing structure

OBJECTIVES
CAPACITIES

WEAKNESSES

Motivation and possibilities of target group
Amenability of determinants to change
Theoretical model
Contributions of the determinants
Duration and intensity of the intervention

THEORY
LOGIC MODEL
IMPLEMENTATION QUALITY
EVALUATION

the target group
on by stakeholders
and scale of the problem
mentation of the intervention to

monitoring and generating feedback
Model of the implementation
Was the change caused by the intervention?
Clarity and agreement on principles of the
evaluation
Has a change been measured?

PREDICTIVE VALIDITY OF PREFFI 2.0

Partial Correlations between Programs' Scores on Preffi 2.0 and Effect Sizes

		CORRELATIONS									
		1	2	3	4	5	6	7	8	9	10
1	CLUSTER 1 "Contextual conditions and feasibility"										
2	CLUSTER 2 "Problem analysis"	.65**									
3	CLUSTER 3 "Determinants of behaviour and environment"	.70**	.67**								
4	CLUSTER 4 "Target group"	.74**	.61**	.61**							
5	CLUSTER 5 "Objectives"	.73**	.51*	.77**	.68**						
6	CLUSTER 6 "Intervention development"	.85**	.60**	.83**	.72**	.88**					
7	CLUSTER 7 "Implementation"	.82**	.44	.65**	.55*	.59**	.82**				
8	CLUSTER 8 "Evaluation"	.75**	.44	.69**	.58*	.64**	.80**	.90**			
9	TOTAL PREFFI 2.0	.92**	.74**	.88**	.80**	.84**	.95**	.84**	.84**		
10	EFFECT SIZE	.03	.05	.45*	-.08	.39	.28	.06	.09	.18	

Moderate, positive linear relationship



Control Variables (Participation in the Training, Average Alpha of Outcome Measures and Program's Intensity)

- No significant correlation between total scores on Preffi 2.0 and the effect sizes of programs.
- Moderate, positive linear relationship between the third Preffi cluster scores “**DETERMINANTS OF BEHAVIOUR AND ENVIRONMENT**” and the effect sizes of programs.
- Moderate, positive linear relationship between scores on the fifth Preffi 2.0 cluster “**OBJECTIVES**” and the effect sizes of programs.



THIRD PREFFI CLUSTER –

“**DETERMINANTS OF BEHAVIOUR AND ENVIRONMENT**” reflects:

- the quality level of the program’s theoretical model,
- description of contributions of determinants to the problem,
- amenability of factors to change and
- the quality of how determinants are prioritized and selected.

FIFTH PREFFI CLUSTER-

„**OBJECTIVES**” reflects:

- if program’s objectives are fitting in with the problem analysis,
- if they are specific, specified in time and measureable,
- if they are acceptable to the main stakeholders and feasible,
- if objectives are considered achievable given the available resources, contextual conditions and intended period of time.



PRACTICAL RECOMMENDATIONS



TRAINING FOR PREVENTION

- Tailored to the capacities and needs of different organizations, managers and implementers.
- Special attention should be given to the themes of “Determinants of behaviour and environment” and programs’ “Objectives”.

PREFFI 2.0

- Training for the instrument’s users.
- Greater specification of effect predictors.
- Discussion with programs' developers and deliverers during assessment.
- The final Preffi 2.0 scores should be defined through their discussion and consensus of assessors.
- Development of Preffi 3.0.
- Provision of a digital version of Preffi.





RECOMENDATIONS FOR FUTURE STUDIES



Study on **experts' and practitioners' experiences** in using Preffi 2.0.

IMPROVED VERSION OF PREFFI – PREFFI 3.0

Study on **predictive validity** of improved version of Preffi.

International comparison studies.

