

REVIEW OF DOCTORAL DISSERTATION

Miranda Novak

"An Empirical Study on Implementation Quality in Prevention Programs"

Miranda Novak, research assistant on the Department of behavioural disorders at the Faculty of Education and Rehabilitation Sciences has defended her doctoral dissertation "An empirical study on implementation quality in prevention programs" on 11th of March 2013. That was the final stage of the doctoral programme Prevention science: prevention of mental and behavioural disorders. Doctoral dissertation was written in English under the mentorship of professor Clemens Hosman, PhD (Radboud University of Maastricht and Nijmegen, the Netherlands) and Celene Domitrovich, PhD (Penn State University). President of the committee for the dissertation approval and defence was professor Josipa Bašić, PhD while other two members were professor Gordana Pavleковиć, PhD (Faculty of Medicine) and associate professor Damir Ljubotina, PhD (Faculty of Philosophy, Department of Psychology).

Doctoral dissertation has 266 pages of text and is structured in the way common for scientific papers of this kind and extent. Text has incorporated 49 tables and 27 graphs while reference list has 136 recent literature references. This dissertation is targeted at the development of knowledge about the implementation quality of mental health promotion and prevention programs, and factors that influence implementation quality and their outcomes. First, this study is offering a theoretical framework and knowledge about implementation and implementation quality in prevention, based on the international scientific literature. Secondly, the results of empirical studies are presented on the development and validation of measures to assess implementation quality of prevention programs in the Region of Istria, the impact of structural factors on this implementation quality, and on the outcomes of efforts to improve implementation quality through Training on Prevention which was developed by the candidate and her colleague Josipa Mihić.

The dissertation includes seven chapters. The first chapter is the Introduction and it provides a thorough review of the field of implementation research, background on the setting in which the study took place, and an overview of prevention in Croatia. It discusses the need for implementation research, the history of implementation research, a conceptual framework on

implementation and offers an extensive overview of what internationally is known about implementation and implementation quality from earlier research. The review of the international literature on implementation in prevention has resulted in a very useful conceptual framework and in the identification of a range of factors that implement implementation quality: standardization, implementers' skills, attitudes, training, support and monitoring, it is assumed that these factors through their impact on implementation quality influence the effectiveness of preventive interventions. Finally, an introduction is presented on the whole research project and the empirical studies that were part of this dissertation project. One of the most important tasks accomplished in the Introduction is the justification of the elements that are included in the conceptual model which informs the measurement strategy and the targets of the training with managers and implementers. In this study four indicators of implementation quality have been studied: dosage, quality of program delivery, participants' responsiveness and perceived program impact.

Chapter two (*Aims and research questions*) presents the aims and research questions of the studies. They are organized into two groups: those related to the factors that influence implementation and those related to the impact of the Training for prevention. The research tasks make sense relative to the aims and the hypotheses are well justified with the literature review. The research tasks of this dissertation were:

1. to construct valid and reliable measures of implementation quality based on implementation literature and existing measures.
2. to explore the level and variation of implementation quality in preventive programs in Istria
3. to explore the differences in perception of implementation quality between program managers, program implementers and program participants.
4. to explore the relationships of implementation factors and indicators of implementation quality
5. to assess the effects of Training for Prevention on the implementation factors and implementation quality reported by program managers, implementers and program participants.

Chapter three (*Methods*) describes the used research methodology (e.g. design and procedure, participants, measures, Training for Prevention, and ethical concerns). The data in the empirical studies in this dissertation are based upon repeated measures among managers, implementers and participants involved in 24 mental health programs and prevention programs in the Region of Istria. A part of this research is based on an analysis of the data from the first measurement, and another part on the comparison between the first and second measures with randomization of the 24 programs and study subjects across an experimental condition (received training program) and a control condition.

The fourth chapter (*Construction of scales*) describes the development of the measures and the outcomes of the validation study on the measures of implementation factors and implementation quality, with separate versions for managers and implementers (implementation factors), and for implementers and participants of prevention programs (implementation quality). For each of the measures the reliability and construct validity is examined. This is an extremely important step in the research as there are limited measures of implementation quality worldwide and this was necessary to answer the specific questions of the study. The procedures that were followed to generate the items and test the reliability were appropriate and established the preliminary reliability and validity which will need to be further explored in future research.

The fifth and sixth chapters describe the findings for the two components of the study. The first set of analyses described in chapter five (*Level of implementation quality*) are descriptive and give a comprehensive overview of the implementation quality within the cohort of programs in Istria from the three different perspectives of managers, implementers, and participants. This chapter utilizes Hierarchical Linear Modeling which is necessary due to the clustering of participants and implementers within programs and is comparing the average scores on the implementation measures with a chosen normative criterion (theoretical mean of the scales). Assessing implementation factors and implementation quality in Istria has revealed a range of factors and indicators that score low and stress the need for investments in improving implementation quality in this field. While the Region Istria seems to be one of the more developed regions, this might implicate that investments in quality improvement are warranted for whole Croatia.

The impact of the Training for Prevention on the implementation quality in the 24 preventive projects is discussed in chapter six (*Impact of the Training*

for Prevention on the implementation quality). The Training for Prevention has shown no impact on implementation factors and some promising positive outcomes on implementation quality when the experimental and control group are compared (i.e., quality of delivery and participant responsiveness). These last results show that implementation quality can be improved. Explorative moderator analyses of the Training study have revealed that the Training showed especially positive effects on a subgroup of programs, i.e. the programs with a short duration and less active managers. This interesting finding stresses the need to create more tailored training and consultation programs, and to focus especially at those managers and implementers who have most to win by such training.

The last seventh chapter (*Discussion and concluding remarks*) presents a summary of the results, the overall conclusions, and recommendations for further improving the implementation quality of preventive programs in Istria and for further research on the presented measures and implementation processes. Some weaknesses and limitations are also discussed in the last chapter. These are mainly due to the fact that this study is the first of this type in Croatia and the researchers could not rely on a research tradition on this topic. For this reason the study had a strong explorative character. Candidate stresses that from a perspective of statistical power, number of programs and the numbers of participating managers and implementers is small, and have seriously limited the power.

The doctoral dissertation of Miranda Novak titled *An empirical study on implementation quality in prevention programs*. It makes a positive contribution to the field of prevention science and to the future of prevention practice and prevention policy in Croatia, and is relevant to the international development of scientific knowledge and assessment tools on implementation quality. To our knowledge of authors, there has not been as extensive and international review of implementation processes in mental health promotion and prevention that has been published in Europe. Implementation quality is essential for achieving effective prevention practice and presents one of the most important challenges to this work. The current review and empirical study offers a highly needed input to the further development of the field not only within Croatia, but in Europe as a whole.

**Prepared by:
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