Mental health protecting recreational physical education model for 40-50-plus year-olds

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PhD **R.K. Makhmutova**[1]
Dr.Sc.Psych., Professor **A.A. Baranov**[1]
PhD, Associate Professor **A.E. Prichinin**[1]
[1]Udmurt State University, Izhevsk

Corresponding author: marokach@mail.ru

Abstract

Objective of the study was to analyze benefits of a new mental health protecting recreational physical education model for the 40-50-plus year-olds.

Methods and structure of the study. We sampled for study the 43-52 year-olds (n=87) and split them up into Experimental Group (20 men and 24 women) reporting habitual (at least three times a week) fitness trainings; plus non-sporting Reference Group of 22 men and 21 women. We used the following tests: Mini-Mult Psychological Test adapted by F.B. Berezin and M.P. Miroshnikov; Physical Activity Rating Test; and the L.I. Wasserman Anxiety Test; plus a standard statistical data processing toolkit.

Results and conclusion. The new mental health protecting recreational physical education model for the 40-50-plus year-olds analyzed gives a special priority to the socializing factors among the mental health protection tools – to complement the predominant studies of the age group's physical health and mental health risk factors. The recreational mental-health-improvement model for adults was found beneficial. We would recommend the study data and analyses being taken into account by the studies geared to motivate different age groups, including the mature and older ones, for physical development and sporting lifestyles in the social contexts that encourage every individual physical education and sports agenda.

Keywords: *recreational physical education, mature age, mental wellbeing, mental health, physical activity, stress tolerance, mental health risks.*

Background. The progress trends in the modern human communities are associated with multiple serious risks for sustainable development including: the growing information flows; mounting pressures from the modern urban lifestyles; growing technological and environmental stresses; volatile and unpredictable professional and social progress patterns; growing demand for the individual mental adaptability to the explosive difficulties of the information/ technological environments; need for multiple re-adaptations to rapidly changing reality; mounting living problems and contradictions for the modern communities, etc. These and many other factors heavily contribute to the mental/ emotional stressors to result in physical fatigue, falling labor efficiency and living activity, with inevitable risks for the physical and mental health [1, 3] commonly viewed as the most important prerequisites for a high quality of life and productive individual, corporate and social activity [2].

Physical activity is traditionally ranked among the most accessible and controllable resources for the efforts to mitigate mental health risks and increase individual stress tolerance. Many foreign studies demonstrate direct correlations between physical activity and mental health, with reasonable physical activity proved to improve mood, self-esteem, cognitive functions and quality of living and prevent/ mitigate depression [4-6]. The ongoing cohort studies have showed benefits of reasonable habitual physical education and sports for mental health. The WHO defines mental health as the individual wellbeing making it possible to mobilize own resource for coping with the everyday stressors to work and live

a productive, happy and efficient life [2]. Most of the national studies of the adult people's mental health and functionality prioritize analyses of the mental health risks and stressors within the relevant social environments to identify the key mental health protection factors and offer mental health improvement initiatives.

Objective of the study was to analyze benefits of a new mental health protecting recreational physical education model for the 40-50-plus year-olds.

Methods and structure of the study. We sampled for study the 43-52 year-olds (n=87) and split them up into Experimental Group (EG, 20 men and 24 women) reporting habitual (at least three times a week) fitness trainings; plus non-sporting Reference Group (RG) of 22 men and 21 women. We used the following tests: Mini-Mult Psychological Test (MMPT) adapted by F.B. Berezin and M.P. Miroshnikov; Physical Activity Rating (PAR) Test; and the L.I. Wasserman Anxiety Test; plus a standard statistical data processing toolkit.

Results and discussion. The EG anxiety tests found domination of moderate anxiety rates; versus the RG tested with a higher emotional stress tolerance. The emotionally volatile subgroup in the EG (with high anxiety, stress intolerance, irritability) was found dominated by women who apparently appreciate the gym trainings for their metabolism activation, cardiovascular system functionality conditioning, body shaping, muscle training and other benefits.

Most of the sample was tested with moderate hypochondria, with their proportion in the EG found lower – that may be due to the benefits of habitual fitness practices. The individualized physical trainings in comfortable gyms apparently help rehab mental balancing qualities and skills with the energy boosting effects. Furthermore, most of the sample reported moderate depression levels, with only a few women in the EG reporting a high depression, with the habitual physical practices apparently helping them keep up the individual mental controls to better cope with the emotional volatility and human relations issues.

On the Pd scale the sample was tested with mostly moderate hostility rates, with a particularly low aggression and conflict exposure in an EG women's subgroup, whilst the low-aggressive men were seldom in both groups. We found the habitual muscle tension-relaxation exercises in the EG definitely beneficial for the emotional stress tolerance. The Ra tests found more individuals prone to high aggressiveness and vindictiveness in the RG. Tables 1 and 2 hereunder give the statistically meaningful intergroup differences in the mental health test data.

Table 1. Statistically significant differences in the mental health test data: women's subgroups

Mental health issues	Women's mental health test averages		U	p
	EG	RG		
Hypochondria	47,30	54,60	64,500	0,044
Hysteria	47,45	56,27	70,000	0,046
Psychasthenicity	45,26	54,72	67,000	0,058

The RG women were tested more prone to passive submissiveness, low adaptability, low responsibility, high anxiety and indecision. We believe that the active recreation model of the EG with simplest accessible physical activity facilitates the women's efforts to improve mental health, with special benefits from socializing aspects of the practical health activity.

The EG men were tested statistically significantly better on the psychopathicity and schizoidness rating scales and higher versus the RG peers on the mood stability, adaptability and emotional tolerance scales, with the qualities and skills particularly beneficial for the interpersonal relations. Their recreational agendas were found determined by the body shaping (somatotype-sensitive), activation, mental health and healthy lifestyle awareness, plus the mental health improvement motivations.

Table 2. Statistically significant differences in the mental health test data: men's subgroups

Mental health issues	Men's mental health test averages		U	p
	EG	RG		
Psychopathy	47,36	53,04	68,000	0,046
Schizoid	49,60	54,25	63,500	0,051

Definite interpretations of the mental health test data and benefits of the physical activity on the gender- and age-specific mental health issues are not always possible due to the deficient initial health test data (prior to the habitual physical education practices). However, reductions in the sitting behavior and progress in physical activity with moderate trainings of the cardiovascular system secured by the recreational physical education service are undoubtedly beneficial for the physical health and

mental health standards and individual physical performances.

Conclusion. The new mental health protecting recreational physical education model for the 40-50-plus year-olds analyzed gives a special priority to the socializing factors among the mental health protection tools – to complement the predominant studies of the age group's physical health and mental health risk factors. The recreational mental-health-improvement model for adults was found beneficial. We would recommend the study data and analyses being taken into account by the studies geared to motivate different age groups, including the mature and older ones, for physical development and sporting lifestyles in the social contexts that encourage every individual physical education and sports agenda.

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