

МИНИСТЕРСТВО СПОРТА РОССИЙСКОЙ ФЕДЕРАЦИИ
Федеральное государственное бюджетное
образовательное учреждение высшего образования
«Воронежский государственный институт физической культуры»
АНОО ВО «Воронежский институт высоких технологий»
Учреждение образования «Гомельский государственный университет
имени Франциска Скорины»

«Современные векторы прикладных исследований в сфере физической культуры и спорта»

Сборник научных статей

I-я Международная российско-белорусская научно-практическая
конференция для молодых ученых, аспирантов, магистрантов и студентов

(27-28 февраля 2020 г)

2020

УДК 796
ББК 75

Научные статьи печатаются при поддержке Министерства спорта Российской Федерации

Редакционная коллегия:

Ректор ФГБОУ ВО «ВГИФК», к.п.н., профессор А.В. Сысоев
Президент АНОО ВО «ВИВТ», д.т.н. профессор Я.Е. Львович
Начальник отдела магистратуры и аспирантуры ФГБОУ ВО «ВГИФК»,
к.б.н., профессор С.Н. Горлова
Зам. декана ФФК УО «ГГУ им. Ф. Скорины», РБ,
к.п.н., доцент А.Е. Бондаренко,
Заведующий кафедрой ФВиС УО «ГГУ им. Ф. Скорины», РБ,
к.п.н., доцент К.К. Бондаренко

Рецензенты:

к. п. н., профессор ФГБОУ ВО «ВГУИТ» В.М. Суханов;
д.п.н, профессор, зав.кафедрой ФВиС УО «БТЭУ ПК» В.А. Медведев

Современные векторы прикладных исследований в сфере физической культуры и спорта [Текст]: сборник научных статей Международная научно-практической конференция для молодых ученых, аспирантов, магистрантов и студентов / [под ред. А.В. Сысоева, Я.Е. Львовича, С.Н. Горловой, А.Е. Бондаренко, К.К. Бондаренко] – Воронеж: Издательство «РИТМ», 2020. - 836с.

ISBN 978-5-6044499-1-2

Материалы международной научно-практической конференции посвящены широкому спектру направлений научных исследований в сфере физической культуры и спорта.

УДК 796
ББК 75

©Коллектив авторов, 2020
©Издательство «РИТМ», 2020

ISBN 978-5-6044499-1-2

<i>Н. И. Ястремская, А. Е. Бондаренко.....</i>	<i>818</i>
ДИНАМИКА ФИЗИЧЕСКОГО РАЗВИТИЯ ШКОЛЬНИКОВ ПРИ ОЗДОРОВИТЕЛЬНОМ ЗАНЯТИИ ПЛАВАНИЕМ	
<i>Т.А. Яхонтова, А.И. Никулина, О.М. Холодов.....</i>	<i>822</i>
РЕФОРМИРОВАНИЕ ОТРАСЛИ «ФИЗИЧЕСКАЯ КУЛЬТУРА И СПОРТ» И ЕЁ СОВРЕМЕННОЕ СОСТОЯНИЕ	
<i>Яцюнь Чжан, Т.А. Шилько</i>	<i>826</i>
ЦИГУН БА ДУАНЬ ЦЗИНЬ ЭТО МЕТОД ПРОФИЛАКТИКИ И ЛЕЧЕНИЯ ФИЗИЧЕСКОГО И ПСИХИЧЕСКОГО ЗДОРОВЬЯ ИЗ КИТАЯ	
<i>Yaqun Zhang, T.A. Shilko, Dr.Hab</i>	<i>829</i>
RE-AIM FRAMEWORK AND ITS APPLICATION PROSPECTS IN THE FIELD OF PHYSICAL HEALTH INTERVENTION	
<i>Yaqun Zhang, T.A. Shilko, Dr.Hab</i>	<i>833</i>
EFFECTS OF PHYSICAL ACTIVITIES ON MENTAL HEALTH OF COLLEGE STU- DENTS	

упражнениях. Во время тренировок необходимо тщательно учитывать возраст и физическое состояние, чтобы предотвратить несчастные случаи. Важно правильно подобрать интенсивность упражнений и уровень нагрузки, которые соответствуют физическому состоянию начинающего для вы безопасной тренировки[1].

Процесс упражнений Цигун Ба Дуань Цзинь – это процесс сочетания движения тела, дыхания и регуляции разума. Необходимо соблюдать здоровый образ жизни и это повысит эффективность упражнений Цигун Ба Дуань Цзинь, а также улучшит состояние здоровья. Начинающие заниматься Цигун Ба Дуань Цзинь могут почувствовать боль в мышцах и суставах после тренировки, но это постепенно пройдет с развитием практики. Для тех, кто только начал практиковать Цигун Ба Дуань Цзинь, мы рекомендуем дышать естественно. Когда определенное время прошло и у вас есть опыт координации упражнений и дыхания, вы можете попробовать сделать глубокий вдох.

Заключение. Цигун – это традиционный китайский способ лечения и рахита. Цигун основан на регуляции дыхания, физической активности и настройке сознания. При регулярных занятиях Цигун улучшается физическая форма, укрепляется здоровье. Также существуют данные и лечебном эффекте Цигун Ба Дуань Цзинь, в частности, происходит предотвращение и лечение болезней. Эффективность Цигун Ба Дуань Цзинь зависит от характеристик тела каждого человека.

Литература

1. Ву Хай Лонг. Исследование по популяризации Цигун Ба Дуань Цзинь в Национальном фитнес-спорте // Спортивные технологии, 2015, №4. – С. 104-105.
2. Чжан Яцюнь, Шилько Т.А. Цигун Ба Дуань Цзинь как метод улучшения психического здоровья // Физическая культура, здравоохранение и образование: материалы XIII Международной научно-практической конференции, посвященной памяти В.С. Пирурского. Томск: СТТ, 2019. С. 182-185.
3. Шилько Т.А., Чжан Яцюнь. Особенности физического здоровья студентов Китая // ТиПФК. 2019. № 10. С. 75-77.
4. Шилько Т.А. Чжан Яцюнь. Чжаоци Ян, Цяньюй Е. Влияние китайской гимнастики цигун (Ба Дуань Цзинь) на качество жизни пожилых женщин // ТиПФК. 2019. № 11. С. 34-36.

RE-AIM FRAMEWORK AND ITS APPLICATION PROSPECTS IN THE FIELD OF PHYSICAL HEALTH INTERVENTION

**Yaqun Zhang, Postgraduate,
T.A. Shilko, Dr.Hab, professor**
National Research Tomsk State University

Keywords: *RE-AIM framework, application prospects, physical health, intervention.*

Annotation. *This article uses the literature review method to analyze the contents of the RE-AIM framework and its application in the field of physical health interventions. The research results found that the RE-AIM framework is more "qualitatively" used as an evaluation system, and the weights of each dimension and their interactions are not yet clear. The authors suggest that in future research, the emphasis should be on determining the specific content, weights, and standards of each dimension of the RE-AIM framework in order to effectively achieve qualitative and quantitative evaluation of health intervention projects.*

Introduction. For physical health intervention projects, establishing and improving a set of effective interventions is the key to the project's ability to achieve the desired goals. A set of effective and efficient project evaluation methods can provide scientific evaluation of the implementation of intervention projects, so as to achieve the purpose of scientifically explaining the value of the project, timely revising and improving the plan, explaining the effects of the project, and thereby ensuring the success of the project. For a long time, the mainstream evaluation method for intervention projects is based on evaluation of effects, but this is not always the most appropriate evaluation method, and it also has certain limitations. In recent years, more and more studies have begun to focus on other influencing factors closely related to interventions in addition to the internal effectiveness of the project. These factors include aspects such as the stability, applicability, sustainability, and impact on public health of physical health interventions. The demand for a more scientific project evaluation method that can take into account both internal and external effectiveness is also increasing. In this case, the RE-AIM framework theory was born [4].

The purpose of the study. The literature research method was used to analyze the contents of the RE-AIM framework and its application in the field of physical health intervention. Provide good suggestions for future research on the RE-AIM framework.

Research methods. Collect and analyze literature review.

Research results and discussion. The study found the following problems in past evaluations of physical health interventions: Evaluation of the effectiveness of intervention programs is often based on one-sided features, such as the intensity of the intervention program. The intervention project is designed and implemented only for the active population, so that it cannot work in complex environments such as lack of active population or overworked staff. Over-emphasis on the evaluation of the effects of physical health intervention programs and neglecting the process evaluation of physical health intervention programs, which makes researchers unable to judge the feasibility of the intervention programs in practical environments. The birth of the RE-AIM framework addresses the problems in these traditional physical health interventions

Russell E. Glasgow proposed the RE-AIM framework in 1999. RE-AIM is an initial combination of five important evaluation dimensions. These five dimensions are Reach, Efficacy, Adoption, Implementation, and Maintenance. Among them, Reach and Efficacy are evaluation indicators at the individual level. Reach refers to the number of participants, the proportion and representativeness of the target population; Efficacy is the result of interventions, including potential negative effects, quality of life, economic indicators, etc. Adoption and Implementation are organizational-level evaluation indicators. Adoption is the number, proportion, and representativeness of the

organizations and institutions that adopted the intervention. Implementation refers to the fidelity of the intervention agency to each element of the intervention plan at the organizational level. Maintenance refers to the extent to which intervention projects or policies become routine or regular organizational practices and policies while examining the situation at the individual and organizational levels. This framework is proposed to achieve a balance between internal validity and external validity in the evaluation of health intervention projects. As an evaluation method, it covers the impact of various aspects of the implementation of health intervention projects [3].

After the RE-AIM framework was proposed, Glasgow published an article using the RE-AIM framework to evaluate the public health impact of health promotion programs. At the same time, he also made a more detailed explanation of the RE-AIM framework and its five dimensions of Reach, Efficacy, Adoption, Implementation, and Maintenance.

Reach is measured by comparing project participants' records with a complete sample or census information from a particular group (Such as the health maintenance organization or the owner of a workplace). Reach (and adoption) also pays attention to the characteristics of participants, and collects demographic information of participants, such as psychological status, past medical history, and other information.

Evaluation of Efficacy requires measuring both positive and negative effects, and including results such as behavior, quality of life, and participant satisfaction. Behavioral results can be measured for three types of people: Participants; Intervention staff; Support users of this intervention or purchasers of public services.

Adoption is generally measured through direct observations or structured interviews and surveys. For communities not participating in intervention projects, unaccepted barriers should also be identified.

Implementation refers to the extent to which staff implement intervention programs at the community level.

Maintenance refers to the maintenance and long-term adherence of physical health interventions, both at the individual and organizational levels.

Glasgow concluded that RE-AIM provides a theoretical framework for judging whether physical health interventions are worth continuous investment in real-world settings. Researchers based on the RE-AIM framework may achieve:

- ① Comprehensive assessment of the impact of physical health intervention projects;
- ② Compare the impact of physical health intervention programs in different periods or different organizations;
- ③ Compare different physical health intervention items based on each dimension;
- ④ Determine whether to continue to promote a physical health intervention project.

The limitations of the RE-AIM framework. When Glasgow proposed the RE-AIM framework, he said that although the RE-AIM framework focuses on the internal and external effectiveness evaluations of physical health intervention programs, it contains relatively comprehensive influencing factors, but still has certain limitations [1]. The limitations of the RE-AIM framework include the following three points:

- ① The interrelationships among the five dimensions of accessibility, effectiveness, adoption, applicability, and sustainability, and how they work together to determine the public health impact of physical health interventions are not clear;

② In the original RE-AIM framework, due to the lack of data support, these five dimensions are considered equally important, so their weights are also the same by default, but this is not the case in practice. In some studies, if one or more dimensions are considered more important, their weights should be considered for reallocation.

③ When proposing the framework, it is recommended to carry out appraisal for application after 6 months to 1 year of project implementation, and for continuous assessment after 2 years of project implementation. There is no data support for this setting. In future research, it is necessary to determine whether different behaviors and different groups have more reasonable time points to evaluate the above characteristics.

Despite its limitations, the RE-AIM framework is more scientifically effective than traditional project evaluation theories.

The application of the RE-AIM framework evaluation method is a design and evaluation method for health intervention programs that has just emerged in the past 10 years. Its evaluation content not only includes the effect of the intervention, but also includes a comprehensive evaluation of the external environment of the intervention, the affected population, the implementation process, cost-effectiveness and sustainability. Therefore, the RE-AIM framework evaluation method may be more suitable for the five areas of activity for health promotion. It also provides a methodological reference for the comprehensive evaluation of health education and health promotion related projects. On the other hand, because evaluation is something that needs to be considered in project design, the RE-AIM method is actually gradually applied to the design of more health intervention projects [2].

In the specific evaluation, it is not simply to compare the average scores of the evaluation indicators in these five aspects, but to comprehensively describe each aspect with multiple contents composed of specific indicators in five different aspects. On the other hand, even if the specific evaluation indicators in one area are not complete, the application of the RE-AIM method can also be used for comprehensive evaluation of other indicators, instead of being unable to evaluate because of lack of some indicators.

At the same time, the RE-AIM framework is constantly evolving and moving forward. Many specific evaluation indicators have been revised and improved since their birth, and each of the five indicators has also progressed. It is believed that with the increasing application of the RE-AIM framework, it will be further supplemented and improved.

Conclusions. Despite its limitations, the RE-AIM framework is more scientifically effective than traditional project evaluation theories. The evaluation theory of RE-AIM is in line with the needs of practical applications. In the future, the evaluation framework will play an important role in both physical health intervention and other fields. In this process, the problem of the RE-AIM framework still exists and needs to be solved urgently. In the current scientific research environment of interdisciplinary and theoretical integration, the development of the RE-AIM framework still needs to focus on how to determine the specific content, weights and standards of each dimension in order to effectively achieve qualitative and quantitative evaluation of intervention projects. The author believes that in continuous research and practice, the RE-AIM framework can achieve new breakthroughs.

References

1. Глазго Р.Е., Нельсон С.С., Страйкер Л.А. Использование показателей RE-AIM для оценки мероприятий по поддержке самоконтроля диабета. *Am J Prev Med*, 2006, 30 (1): С. 67 -73.
2. Глазго Р.Е., Эакин Е.Г., Тооберт Д.Дж. Насколько обобщены результаты исследований по самоконтролю диабета? Влияние участия и истощения. *Diabetes Educ*, 1996, 22 (6): С. 573-585.
3. Глазго Р.Е., Фогт Т.М., Болес С.М. Оценка воздействия мероприятий по укреплению здоровья на общественное здравоохранение: структура RE-AIM. *Am J Public Health* , 1999–89 (9): С. 1322–1327.
4. Кесслер Р.С., Перселл Е.П., Глазго Р.Е. Что означает «использовать» модель RE-AIM. *Health Health Prof.* 2013,36 (1): С. 44-66.

EFFECTS OF PHYSICAL ACTIVITIES ON MENTAL HEALTH OF COLLEGE STUDENTS

**Yaqun Zhang, Postgraduate,
T.A. Shilko, Dr.Hab, professor**
National Research Tomsk State University

Keywords: *physical activities, mental health, effects, college students.*

Annotation. As an important basis for the future development of the country, the physical and mental health of students should be taken seriously. In the process of focusing on mastering and improving knowledge and skills, mental health education cannot be ignored. Physical activities can increase students' confidence, improve interpersonal relationships, eliminate psychological fatigue, correct emotions and help students develop positive mental health. This article analyzes the influence of physical activities on the mental health of students and explores the relationship between physical activities and mental health.

Introduction. In the era of the talent competition in the 21st century, in addition to having students with good professional knowledge and health, they also need students to have good mental health. The state and society are also paying more and more attention to the development of mental health of students. Some studies show that 80% of college students currently have serious mental health problems such as stress, depression, and anxiety, and this serious problem needs to be urgently addressed. A large number of studies have shown that physical activities can have a positive effect on mental health, and there is a close relationship between them. This article discusses the effects of physical activities on the mental health of students [3].

The purpose of the study. Analyze the impact of physical activities on students' mental health, and explore the relationship between physical activities and mental health.

Research methods. Collect and analyze literature review.

Research results and discussion. Research shows that physical activity can have