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SOCIAL-COGNITIVE APPROACH TO SELF-REGULATION OF SPORTS ACTIVITIES

Relevance of the study: The social-cognitive paradigm was developed on the basis of A. Bandura's theory of social learning by B. Zimmerman, who emphasized the special role of self-regulation in the general social-cognitive theory of behavior. B. Zimmerman put forward the proposition that regulatory skills are a source of subjectivity ("personal agency"), which is the basis of a person's sense of self. The author describes the structure of the self-regulation system, the influence of the social and environmental context on it, and, finally, the dysfunctions of self-regulation and the direction of its development (cited by Olefir, 2016). In this approach, self-regulation is defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to achieve personal goals" (Zimmerman, 2000, p. 14), and emphasizes the importance of self-directed feedback loops that occur at different stages self-regulated learning (Zimmerman, 2000).

The Aim is to determine and theoretically substantiate the possibilities of social-cognitive theory in explaining self-regulation of sports activities.

Results. The article analyzes the main theoretical positions of the sociocognitive theory and its possibilities in explaining the self-regulation of sports activities.

***Conclusions.** The importance of the socio-cognitive theory in explaining the self-regulation of sports activities is that it is considered as a set of actions aimed at the regulation of thoughts, feelings and behavior in general, taking into account a number of environmental factors, which within the limits of sports differ in ambivalence, contradictions and diversity. The key idea of this theory that athletes will pursue such a line of behavior and such strategies and tactics of activity that bring them self-satisfaction and a sense of self-importance, but they refrain from such ways of behavior that lead to self-condemnation, found confirmation in the theory of self-denial, which is traditional to explain sports self-regulation.*

Keywords: socio-cognitive theory, self-regulation, self-regulation of sports activity, athlete, sports activity.

**Соціально-когнітивний підхід до саморегуляції
спортивної діяльності.**

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***Актуальність дослідження:** Соціально-когнітивну парадигму розробив на основі теорії соціального навчання А. Бандури Б. Ціммерман, який підкреслював особливу роль саморегуляції в загальній соціально-когнітивній теорії поведінки. Б. Ціммерман висунув положення про те, що регулятивні навички є джерелом суб'єктивності («personal agency»), яка лежить в основі самовідчуття людини. Автор описує структуру системи саморегуляції, вплив на неї соціального та екологічного контексту, зрештою, дисфункції саморегуляції та напрями її розвитку (цит. за Олефір, 2016). У цьому підході саморегуляція визначається як «самогенеровані думки, почуття та дії, які плануються та циклічно адаптуються для досягнення особистих цілей» (Zimmerman, 2000, стор. 14), і підкреслюється важливість самостійного зворотного зв'язку. петлі, які виникають на різних етапах саморегульованого навчання (Zimmerman, 2000).*

***Результати.** У статті проаналізовано основні теоретичні позиції соціокогнітивної теорії та її можливості у поясненні*

саморегуляції спортивної діяльності.

***Висновки.** Цінність соціокогнітивної теорії у поясненні саморегуляції спортивної діяльності полягає у тому, що вона у ній розглядається як сукупність дій, що спрямовані на регуляцію думок, почуттів та поведінки в цілому з урахуванням низки середовищних чинників, які у межах спорту відрізняються амбівалентністю, суперечливістю та різноманіттям. Ключова думка цієї теорії про те, що спортсмени переслідують таку лінію поведінки та такі стратегії і тактики діяльності, що приносять їм самовдоволення і почуття власної значущості, але вони утримуються від таких шляхів поведінки, які призводять до самоосуду знайшла підтвердження у теорії самоденетрімації, яка є традиційною для пояснення спортивної саморегуляції.*

***Ключові слова:** соціокогнітивна теорія, саморегуляція, саморегуляція спортивної діяльності, спортсмен, спортивна діяльність.*

Introduction. The social-cognitive paradigm was developed on the basis of A. Bandura's theory of social learning by B. Zimmerman, who emphasized the special role of self-regulation in the general social-cognitive theory of behavior. B. Zimmerman put forward the proposition that regulatory skills are a source of subjectivity ("personal agency"), which is the basis of a person's sense of self. The author describes the structure of the self-regulation system, the influence of the social and environmental context on it, and, finally, the dysfunctions of self-regulation and the direction of its development (cited by Olefir, 2016). In this approach, self-regulation is defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to achieve personal goals" (Zimmerman, 2000, p. 14), and emphasizes the importance of self-directed feedback loops that occur at different stages self-regulated learning (Zimmerman, 2000).

The **Aim** is to determine and theoretically substantiate the possibilities of social-cognitive theory in explaining self-regulation of sports activities.

Results. The socio-cognitive paradigm considers self-regulation as a triad interaction of personal, behavioral and environmental processes (Bandura, 1986). This understanding is

fundamentally different from the theoretical traditions that determine self -regulation as a kind of internal state, rice or ability, genetically embedded, or such a person. In contrast, the socio-cognitive paradigm determines self-regulation in terms of contextual-specific processes that are used cyclically to achieve personal purposes (cited by Olefir, 2016).

These processes entail not only metacognitive knowledge and skills, but also affective, behavioral processes, and belief in their effectiveness, which serve the goals of control. The cyclic interdependence of these processes, reactions and beliefs is described through the sequence of three phases:

- planning (forethought);
- performance or volitional control;
- self-reflection.

The first phase of self -regulation is the stage of planning and reflection. This phase concerns the processes and beliefs that occur before the start of activity, such as planning, goals setting and strategies activation, such as defining a pace strategy. There are two main classes of processes at the pre -reflection stage: analysis of tasks and self -motivation beliefs (Zimmerman, 2000). The analysis of the tasks involves setting goals and strategic planning, such as dividing the task into separate parts. An example of the process analysis process is the breakdown of the marathon into different stages (or "pieces") for different purposes for each of them. Elite athletes for endurance also report that the goals of race, race and pace tactics, as well as planning cognitive strategies (such as focusing on breathing), the need for support during race and food strategies (Brick et al., 2015). The beliefs of self -motivation include beliefs of self -efficacy, expectations of results and internal interest. For example, a cyclist who values activity for what she is, not for being able to get from her, for example, a physical form or victory over others, and who believes that he is able to continue to go, despite high loads and Pain will be more motivated to participate in cycling competitions in a self-regulating way.

At the planning stage, the tasks and goals of the activity are set, strategic planning is due to the analysis of self -motivational

beliefs presented by the phenomenon of self -efficiency, self -confidence, expectations of a certain result of activity, interest in activity and personal value of this activity, focus on achieving the purpose of activity. A. Bandura's self-efficacy is defined as an idea of their ability to master or perform a certain activity, to exercise certain behavior at the proper level, as well as the belief of people in their ability to regulate their own functioning and to feel control over the events that affect their lives (Bandura, 1986, 1997), it is "the judgment of people about their ability to organize and execute chains of actions necessary to achieve the established results of the activity" (Bandura, 1986, p. 391). According to this concept, the attractiveness of the result and the belief in the positive result (expectation of success) are insufficient to launch personality motivation, which is only allowed by belief in their own ability to cope with this type of activity. Self -efficiency is a significant factor for both achievements in different activities and for physical and psychological well -being. Therefore, self-efficiency ideas are the basis for proper sports planning. The belief of the athlete is that he can handle the task of controlling the situation during training or competition.

Self-efficiency is "belief in your own ability to mobilize motivation, cognitive resources and methods of action necessary to meet certain situational requirements" (Wood & Bandura, 1989, p. 408). It is a self -esteem whether a person can, as opposed to freedom (belief in intention) or has (previous experience). These beliefs are formed through the integration and evaluation of several sources of information, such as past experience, vicar influence, social beliefs and the perception of physiological and emotional states (Bandura, 1997). Self -efficiency beliefs are not global features, but instead they are tied to specific areas of operation and change as new information is collected and processed.

One of the key assumptions of self-efficiency theory is that what people consider themselves capable is often a better predictor of behavior and effectiveness than what they are objectively capable of (Bandura, 1997). Such perception of abilities cannot replace their ability, but on the contrary, people should consider themselves capable if they want to fully use their potential abilities and skills

(Bandura, 1997). Self-efficacy affects the amount of effort that a person is ready to make and his perseverance, when he faces difficulties and failures (Bandura, 1997). This is related to the psychological requirements of endurance exercises, such as the fight against pain and discomfort, tempo, a number of stress factors of the environment and motivation to continue training (for example, McCormic, etc., 2016).

Self-efficacy as a person's idea of his own abilities affects the goals that he chooses and his commitment (Locke, 1990), the perception of her own efficiency determines the type and level of goals: high self -efficiency contributes to the choice of difficult goals associated with interest in the problem (Bandura, 1986, 1997). Therefore, the pronounced efficiency of the athlete determines the choice of sports tasks of the highest level of complexity, contributes to his internal motivation (interest) to the realization of these tasks.

The reflection phase involves setting goals for future activities, and beliefs of self -efficiency are consistently related to the process of setting goals and achievement of goals (Bandura, 1997; Locke & Latham, 1985). People with high levels of self -efficacy are more likely to set complex goals (Locke & Latham, 2002), continue to strive for them, despite the failures (Bandura, 1997), and have greater confidence in achieving the goals (Kane, Marks, Zaccaro, & Blair, 1996). Complex and difficult goals, in turn, are associated with increased readiness (Weinberg, Gould, Yukelson, & Jackson, 1981) and high levels of motivation (Howle, Dimmock, & Jackson, 2016; Hutchinson, Sherman, Martinovic Tenenbaum, 2008). Therefore, self -efficiency can play an important role in self -regulation at the stage of reflection. High level of self -efficiency, however, does not guarantee involvement in the task. Other social cognitive constructs, such as the expectations of results, also contribute to the involvement in the task (Bandura, 1997).

The contemplation phase involves setting goals for future activities, and self-efficacy beliefs are consistently related to the process of goal setting and goal achievement (Bandura, 1997; Locke & Latham, 1985). People with high levels of self-efficacy are more likely to set challenging goals for themselves (Locke & Latham,

2002), continue to pursue them despite setbacks (Bandura, 1997), and have greater confidence in achieving their goals (Kane, Marks, Zaccaro, & Blair, 1996). Complex and difficult goals, in turn, are associated with increased willingness to exert effort (Weinberg, Gould, Yukelson, & Jackson, 1981) and increased levels of motivation (Howle, Dimmock, & Jackson, 2016; Hutchinson, Sherman, Martinovic, & Tenenbaum, 2008). Hence, self-efficacy may play an important role in self-regulation during the deliberation stage. A high level of self-efficacy, however, does not guarantee engagement in the task. Other social cognitive constructs, such as outcome expectancies, also contribute to task engagement (Bandura, 1997).

At the implementation stage, two regulatory processes are implemented: self-observation and self-control. The function of self-observation involves introspective self-monitoring, setting tests and self-tests, metacognitive monitoring. In relation to sports activities, self-observation involves monitoring and recording the correct performance of certain actions during training, awareness of the causes of errors, analysis of the characteristics of incorrect performance, etc. Metacognitive monitoring is the current control of the athlete's thoughts regarding the correctness of the performance. The function of self-control at the stage of execution involves tactical planning and activity, self-management and control of one's own attention, use of imagination through asking "what if" questions, use of time management techniques, structuring of the environment, seeking help, relying on one's own interests.

A number of studies highlight that athletes can use a range of metacognitive skills such as planning, monitoring, and revising their thoughts during these three stages (see Brick, MacIntyre, & Campbell, 2015). Metacognitive processes are often referred to as "thinking about thinking" (Miller, Kessel, & Flavell, 1970, p. 613), which is an important aspect of self-regulation. Metacognition traditionally emphasizes the development of cognitive structures and reflects the activation of thoughts and behaviors to achieve goals. It is here that the connection with self-regulation can be traced, that is, where metacognition is traditionally viewed as the activation of

cognitive structures, self-regulation emphasizes the interaction of a person and the environment, as well as subsequent behavior aimed at achieving a goal (Dinsmore, Alexander, & Loughlin, 2008). For example, when looking at endurance performance, the metacognitive skill of determining a preferred pacing strategy can influence behavior in a specific context, such as how much effort a cyclist exerts during a one-hour time trial (Brick, MacIntyre, & Campbell, 2016).

The execution phase refers to the processes that occur during the implementation of an activity or behavior, and the two main classes of processes are self-monitoring and self-monitoring. Self-monitoring processes are particularly important. In the deliberation phase, the endurance athlete chooses methods or strategies; in the phase of performing self-control, he applies them. A diverse range of these (metacognitive) strategies are used by endurance athletes in the performance phase (Brick et al., 2015) and include the use of imagery to aid in pacing decisions and coping with unhelpful emotions, strategic use of affirmations for self-belief, and strategic focus attention

Athletes often evaluate their progress toward a goal, and perceived progress then leads to changes in behavior to increase the likelihood of goal achievement (Kane et al., 1996). For example, a runner who realizes that he is not timing his race may increase his pace. A runner may also use various coping strategies to deal with the sensations that arise when the pace increases. Such assessment of progress can be based on perceptions of physiological state (ie, perceived effort and muscle soreness) or in comparison to other participants (eg, how competitors perform or whether they demonstrate effort and distress) (Button, Mathieu, & Aikin, 1996). Self-efficacy also plays a role in how athletes respond to perceived negative progress toward their goal. Specifically, the study found that people with high self-efficacy were more likely to exert more effort and experience less negative affect, compared to people with low self-efficacy, when they perceived their goal progress during a 1500m treadmill race to be negative. (Bueno, Weinberg, Fernández-Castro, & Capdevila, 2008).

At the stage of self-reflection, self-evaluation judgments and evaluation of one's own activity take place. Self-reflection refers to the processes that occur after the implementation of behavior. The two main classes of processes at the stage of self-reflection are self-evaluation and self-reaction. Self-satisfaction is a key form of self-reaction, and it can influence the effort an athlete is willing to exert in future activities. For example, if an athlete is dissatisfied with their performance or feels guilty for not being able to train enough due to other commitments, their willingness and motivation to exert effort in the future may decrease. The three-step approach to self-regulation is cyclical; the self-reflection that occurs shapes further processes of deliberation and conviction (Zimmerman, 2002).

Making judgments about the results of one's own activity is based on the formation of self-esteem, which is based on personal standards and causal attribution of activity results. In other words, the athlete evaluates the degree of success of his own sports activity based on self-evaluation of his own sports achievements, which reflects the degree of compliance with personal standards of the implementation of a sports task - on the one hand, and based on ideas about the reasons for the results of sports activities, which may be internal (ideas about the leading role of one's own sports qualities and abilities in achieving a certain result in sports) or external (the perception of the leading role of the situation, circumstances, other participants in sports activities in the results of the athlete's activities). The result of successful self-reflection of sports activities in general or individual actions in sports leads to the actualization of adaptation mechanisms, i.e. the athlete's adaptation to the content of sports activities and new challenges, as well as to the formation of a positive self-concept, a favorable image of oneself as an athlete, a number of psycho-emotional states that contribute achieving further goals of sports activities.

Research has shown that both high and low self-efficacy people make frequent use of self-evaluations and tend to attribute successful performance to factors within their control, such as their effort and ability, but they often differ in their explanations after performing poorly or when they fail. achieve their goals (Chase,

2001; Feltz et al., 2008). People with low self-efficacy are more likely to attribute their poor performance to internal stable factors such as lack of ability, while people with high self-efficacy are more likely to attribute their poor performance to unstable factors such as their own effort or external uncontrollable factors, such as the weather, other competitors, or luck (Gist & Mitchell, 1992). Performance attributions likely mediate the effects of those outcomes on future self-efficacy beliefs, which in turn modify future goals, and so on. To demonstrate this process, consider a cyclist who performed poorly in an important competition. If a cyclist attributes their poor performance to their own ability, effort, or strategy, this can negatively affect their self-efficacy. However, if they attribute their poor performance to more external uncontrollable factors, such as the weather or other competitors performing better than expected, their poor performance may not have a negative impact on their self-efficacy. This demonstrates the cyclical nature of self-regulation and how self-efficacy can play a key role in it.

A number of studies have shown the relationship between self-efficacy and actual results of sports activities. Self-efficacy has been associated with better performance in iron distance triathlon (Burke & Jin, 1996), marathon running (Okwumabua, 1985), and cross-country running (Martin & Gill, 1995). Most of these studies, however, have focused on correlational data with limited attempts to control for physiological differences between participants. Experimental studies that have manipulated self-efficacy (Howle et al., 2016; Miller, 1993) have demonstrated that increased self-efficacy can lead to higher resilience scores. However, not all studies have found a consistent relationship between self-efficacy and resilience. Martin (2002) investigated self-efficacy beliefs in wheelchair racers and found no relationship between self-efficacy and performance. The lack of association may be related to how self-efficacy was measured. Martin (2002) chose to measure self-efficacy in terms of self-report by asking participants how confident they were that they would be able to finish the race within a certain number of seconds of their target time. Other studies (e.g., Burke & Jin, 1996; Okwumabua, 1985) have instead measured self-efficacy

beliefs from a descending list of possible outcomes. This highlights the need for researchers to be aware of how they measure self-efficacy beliefs and how such differences in measurement may affect results (see Bandura, 2006, for guidance on developing self-efficacy scales).

B. Zimmerman describes the levels of development of self-regulation skills (table 1.1). The first level, cognitive-motor skill observation, involves learning by observing or listening to an experienced model, such as learning a videotaped kick of a professional hockey player. Modeling provides the novice student athlete with an image of the skill for further learning.

At the second level, imitation, the athlete performs the cognitive-motor skill personally, often with feedback and under the guidance of a model coach. The experience of imitative performance gives the subject a sense of how a new cognitive-motor skill feels motorically and visually. Imitation performance not only provides sensorimotor feedback, but also allows students to develop internal "technological" standards of correct performance that are important for later stages of learning (Zimmerman, B. J. Kitsantas, 1997).

At the third level - learning, which is also called self-control, students learn to independently perform cognitive-motor skills as a routine process. To develop this automatic level of motor skill, students must practice on their own. They no longer rely directly on the model for learning, but remain dependent on personal perceptions of the modeled performance standards. At this stage, learning strategies that focus on mastery of basic skills, including process goals and self-monitoring, facilitate the achievement of automaticity (Zimmerman & Bonner, in press).

At the highest level, self-regulation, the student learns to adapt his cognitive-motor skills to a dynamically changing environment. Skills in this phase can usually be performed without deliberate thought, and the learner's attention can be switched to the outcome of the performance without negative consequences. For example, a volleyball player's focus may shift from executing a serve to using it effectively, such as placing it where a point can be won. To achieve this, students must self-monitor the results of their pitches.

Table 1

Levels of development of athlete's self-regulation skills according to Bari Zimmerman's model

1	Observation	A) The future athlete acquires motivation for sports through observing the performance / game. B) A novice athlete gains experience by observing the correct performance model of more experienced athletes/coaches.
2	Imitation	The athlete imitates the execution of a pattern of actions or repeats (imitates) the style of execution through a model of behavior with the use of social assistance (advice from the coach and more experienced athletes).
3	Self-control	Independent demonstration of skill (performance) in structured conditions (at training / competition).
4	Self-regulation	Adaptive use of experience in changing conditions: taking into account internal conditions (physical well-being, state of fatigue/rest/exhaustion, psycho-emotional states) and external conditions (current objective situation of sports activity and its subjective perception).

In the sociocognitive theory of self-regulation of activity, the social and cognitive factors of self-regulatory behavior of an individual are thoroughly described. A. Bandura explains personal functioning using the three-component principle of reciprocal determinism. According to this principle, personality functioning is the result of the interaction of three interrelated factors: the environment (physical and social), cognitive and affective systems, and human behavior. Each of these factors affects the other, and, depending on the context, there is a different influence. In other words, self-regulation of sports activities depends on the athlete's subjective perception of his social environment (competitors in

individual sports, other players in team sports, the personality of the coach, fans, parents, etc.) and objective circumstances, the situation (training, competitions, etc.), evaluation judgments of the athlete, his affective reactions to success or failure, real actions of the athlete.

According to A. Bandura, the ability to self-regulate is a person's ability to set goals and evaluate their actions by comparing them with internal standards. The cognitive basis of self-regulation is auxiliary cognitive processes, in particular self-monitoring, standards, evaluative judgments, and the emotional basis is the affective reactions of self-evaluation.

Self-monitoring involves monitoring one's mental processes and actions, the conditions under which they occur, and the immediate and remote effects they exert. Success in self-regulation to a certain extent depends on the accuracy, consistency and temporal proximity of self-control. Depending on personal values and the functional significance of various actions, people selectively monitor certain aspects of their functioning and ignore those that are of little significance to them. Observing patterns of one's own behavior is the first step toward doing something, but by itself, such information provides little basis for self-regulation of action. Actions become self-regulated through a subjective evaluation function that contains several supporting processes.

The main role in the implementation of self-regulation is played by personal standards for evaluating and managing actions. The assessment of a particular result as favorable or unfavorable will depend on the personal standards on the basis of which it is made. Standards are mental representations of criteria that determine desirable or undesirable results presented in the cognitive sphere of a person. If the athlete's actions meet his standards, then he will feel satisfaction and, conversely, if the actions do not meet the standards, then he will be dissatisfied with his own performance, the game or the results of training or competition. The personality seeks to perform actions aimed at achieving self-satisfaction and avoiding negative reactions to itself. Therefore, affective reactions of self-esteem serve as motivational factors of self-regulation. The athlete's emotions as a result of the analysis of consistency between sports

achievements and his expectations according to personal standards are a source of self-regulation of sports activities.

Because there are no absolute measures of appropriateness for most actions, people must evaluate their actions relative to the achievements of others. Even in sports that are strictly regulated in terms of standards of success, the athlete focuses on the achievements and capabilities of other players or competitors, on current Olympic records, etc. Reference comparisons can take the form of executive achievements of others in similar situations, standard norms based on representative groups, in particular athletes of the appropriate level of training, own past achievements. The more actions correspond to personal values and meaning, the more likely self-esteem responses will be revealed in the activity. Therefore, the more an athlete is involved in sports activities and it has a high meaning for him in life, corresponds to his leading values, the more reactions of the athlete's self-esteem will regulate the self-regulation of sports activities. Self-esteem responses also vary depending on how an individual perceives the causes of their behavior or performance outcomes. For example, athletes are more likely to take pride in their own performance when they attribute their success to their own athletic ability and effort in training and competition. However, they will react self-critically to wrongdoings for which they consider themselves responsible, but do not perceive themselves as such because of unusual circumstances, insufficient opportunities, or unrealistic demands.

Self-regulation, which is based on personal standards, involves the cognitive process of comparing standards with the perceived result of activity. Regulatory effects do not originate from the standards themselves, but rather occur through self-reactive influences involving perceived standards-conforming self-efficacy, emotional self-evaluation of achievement, and regulation of immediate goals in response to achievement. Executive judgments set the stage for self-reactive influence. Self-reactions provide the communication mechanism by which standards regulate action plans. Self-regulation is achieved through the creation of incentives for one's own actions and preventive affective reactions to one's

behavior depending on how it meets personal standards (cited by Olefir, 2016).

Therefore, according to A. Bandura's theory of self-regulation, athletes will pursue such a line of behavior and such strategies and tactics of activity that bring them self-satisfaction and a sense of self-importance, but they refrain from such ways of behavior that lead to self-condemnation.

Discussion and conclusions. Thus, according to B. Zimmerman's triad model, self-regulation is a process that includes actions that require regulation of thoughts, feelings and behavior that a person can influence, and also takes into account what is happening in the environment. Much of the application of this approach to self-regulated learning in a sports context has focused on motor skills training, particularly fine motor skills. Overall, research findings suggest that more experienced athletes engage in more self-regulated learning behaviors (Cleary & Zimmerman, 2001) and that there is a positive relationship between self-regulated learning and performance (Cleary, Zimmerman, & Keating, 2006; Kitsantas & Zimmerman, 2002). The potential of using self-regulated learning to develop endurance has been proven. This is important because in endurance exercise, participants are constantly making decisions about goal-directed processes, such as slowing down or speeding up, based on how they feel physically and emotionally, as well as what is happening in their environment, such as weather conditions and behavior of other participants (Hettinga et al., 2017; Renfree et al., 2014). From a self-regulation point of view, it is also important to understand and reflect on what is happening in the environment, and from a social-cognitive point of view, aspects such as modeling (for example, observing the success of others) can influence the processes in which we take participation to move toward or away from a desired state or goal. Elferink-Gemser and Hettinga (2017) suggested that self-regulated training can improve endurance performance in athletes when focused on developing pacing skills. Other researchers have examined the role of motivational and volitional factors, such as action planning, in the self-regulated running training of untrained participants over one year, using a health behavior change approach,

and found that non-marathon runners used less action planning at the beginning of training, and their action planning fluctuated more over time (Scholz, Nagy, Schütz, & Ziegelmann, 2008). In general, fluctuations in volitional variables, as well as fluctuations in self-efficacy, have been shown to be unfavorable for running performance (Scholz et al., 2008).

The importance of the socio-cognitive theory in explaining the self-regulation of sports activities is that it is considered as a set of actions aimed at the regulation of thoughts, feelings and behavior in general, taking into account a number of environmental factors, which within the limits of sports differ in ambivalence, contradictions and diversity. The key idea of this theory that athletes will pursue such a line of behavior and such strategies and tactics of activity that bring them self-satisfaction and a sense of self-importance, but they refrain from such ways of behavior that lead to self-condemnation, found confirmation in the theory of self-denial, which is traditional to explain sports self-regulation.

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