ORGINAL ARTICLE

Effects of Self-Talk on Football Players Performance in Official Competitions

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Abstract

One of the factors influencing the athletes' performance in critical situations is their awareness of the strategies entailing mental skills. One such skill is self-talk that has been identified as an effective mental training tool in controlling human beings' behaviors. This study aims to examine the perceived positive and negative effects of self-talk on the athletes' performance. Data were collected through survey questionnaire from a group of Iranian elite football players qualified for national football team. The players' responses were thematically analyzed for both positive and negative effects of ST in different occasions around official football competitions. The analysis indicated the perceived effects could be characterized at two levels: mental and behavioural. Most important positive effects of ST at mental level included its cognitive benefits such as enhancing focus and attention, promote decision making skills and decreasing reaction time. Mental level benefits also comprised emotional effects of ST such as motivating players to increase efforts, coping with difficult situations, and decreasing anxiety and psyching up. Emotional effects had negative aspects too. Weakening confidence by self-criticism, and dwelling on negative thoughts and increased stress were among negative effects. At behavioral level, ST was perceived to benefit execution of tasks by increased attentional focus and creating an awareness of the negative consequences of certain behaviors thereby benefiting the overall performance of the individuals and that of the team. Implications for football players and team managers have been discussed.

Key words: Self-talk; Iran national football team; self-talk patterns; self-talk effects

Introduction

One of the factors influencing the athletes' performance in critical situations is their awareness of the strategies enhancing mental skills. Recently, sport psychology has shown a growing interest in identifying cognitive behaviors that lead to athletes' effective performance. The use of mental-skills-related strategies such as attention control training, goal setting, imagery, relaxation, and self-talk (ST) that control and enhance mental processes has been consistently underscored by recent research. Among these strategies, inner conversation or self-talk has been identified as a key component which plays a central role in controlling athletes' mental behaviors that can lead to successful sport performance. Typically ST refers to an individual's thinking of

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some thingand involves statements that are addressed to oneself and not to others. It can also be said overtly or covertly. Other specific aspects of ST have been presented in various definitions of this phenomenon in previous research. For example, Hackfortand Schwenkmezger(1993) define self-talkas "what you say to yourself. You maytalk to yourself out loud or you may talk to yourself in your mind, so that only you can hear what you are saying (p.235).Hardy (2006), a prominent researcher in this field, views self-talk as an inner conversation, in which the individual explains emotions, approaches and feelings, estimates, regulates and changes judgment and assessment, and gives himself/herself guidelines and instructions. Hardy, Hall, and Hardy (2005) described ST as a "multidimensional phenomenon concerned with athletes' verbalizations that are addressed to themselves" (p. 905).Additionally, in his recent critical review of literature on definition of self-talk, Hardy (2006)has suggested an extended definition of self-talk arguing that previous definitions of this concept have been vague or insufficient and sometimes simplisticin operationalizing the term. He further contends that self-talk should be defined as: (a) verbalizations or statements addressed to the self; (b) multidimensional in nature; (c) having interpretive elements association with the content of statements employed; (d) is somewhat dynamic; and (e) serving at least two functions; instructional and motivational, for the athlete (p. 82). Given the fact that self-talk is a relatively young area of research in sports, and considering the diversity of arguments regarding its comprising components, the existing literature suggests further investigations to provide insights into the nature of this phenomenon. However, the focus of the present study is on the effects of self talk as a mental skill on athlete's performance in critical situations, which needs to be addressed in dealing with high-pressure

tasks (e.g., championships...) Hence, self-talk and how it functions in athletic performance warrants further investigation. A substantial body of research studies is now available which have looked into the effects of different types of ST on athletes' performance. Generally, these studies tend to consider positive effects versus negative effects of ST. The results, however, have been quite equivocal. While the majority of these studies advocate the instrumental function of self-talk in promoting performance (e.g., Hardy, 2006; Zinnser et al. 2006; Johnson, Hrycaiko, Johnson, and Hallas, 2004), some others have not reported any significant difference between positive and negative feedback in promoting performance. For example, Zinnseret al (2006) suggest that self-talk facilitates learning, improves task performance, regulates effort and enhances self-confidence. Similarly, Hardy et al. (1996) assert that self-talk controls anxiety and triggers appropriate action. Positive thinking and discarding negative, self-defeating thoughts have been found to positively affect performance in a variety of sports; tennis (Defrancesco and Burke, 1999; McPherson, 2000; Weinberg, et al., 1992), basketball (Kendal, et al., 1990), golf (Thomas & Fogarty, 1997), hockey (Halliwell, 1990), driving and wrestling (Highlen & Bennet, 1983), and endurance running (Patrick & Hrycaiko, 1998). Conversely, a number of studies have found no significant influence of self-talk on performance (e.g., Gauvin & Halliwell, 1991; Rotella, Gansneder, Ojala, & Billing, 1980) Alternatively, Highlen& Bennett (1983) contend that negative self-talk can also improve performance.

Findings from these studies suggest that both positive and negative self-talk are likely to enhance players performance in competitions; however, most studies support the likelihood of positive self-talk to improve sport performance. Halliwell's (1990) analogy of using brain like a computer contributes to our understanding

of the role of positive thinking. Athlete's can program their brain with positive and negative words. By thinking or saying negative words to themselves, the athletes are programming their brain for failure, but by thinking or saying positive things they can program for success (Halliwell, 1990).

This brief overview of previous research indicates that the influence of self-talk cannot be ignored in high-pressure sport competitions; however, the examination the athletes' perceptions of positive and negative effects of self-talkon their performance has enjoyed scant attention in previous research. With respect to the stated significance of ST awareness in athletes' performance and regarding the fact that there is a paucity of research in this area, the present study attempts to examine football players perceptions of positive and negative effects of ST around official national level competitions, which exercises high mental pressure on the athletes thereby influencing their performance. Thus, due to the exploratory nature of the study, a qualitative approach was considered appropriate to conduct the collection and analysis of the data.

Method
Participants

Participants were Iranian male football players who qualified for national football team. Twenty-five players agreed to participate in the study. They ranged in age from 19 to37with the mean age of 27. Their competition experience involved regional and national competitions ranging from30 to 580 competitions at local level and 0 to 114 competitions at national level.Due to the qualitative nature of the study, purposive convenient sampling was the appropriate sampling procedure for the study.

Procedure

Prior to this study being conducted, all administrative arrangements were made with football federation and national football team management office and the necessary permissions were sought. Prior arrangements were also made with team coordinators to seek participants consent. Participation was voluntary and the participants were informed that they could withdraw from the study at anytime if they wanted to. It was also noted that no reference would be made to any individual names in any written or oral reports and the data would be kept strictly confidential. All participants agreed by signing the informed consent statement form, which provided them information about the aim of the study, the procedures as well as the participants' rights.

Data management

Data for the present study comes from an open-ended questionnaire which solicited information about self-talk in the three occasions: 1) before the match, 2) during the match, and 3) after the match. In order to clarify the intent of the study, the questionnaire instruction included a simple definition of self-talk (translated into participants' native language) with examples to clarify the intent of the study so that the respondents could provide authentic input. All questionnaire items were in the respondents'' native language. The provided responses were then transcribed, and translated into English by a professional translator. The translated transcripts were kept anonymous and submitted to an independent reviewer, who was an English language specialist and verified the accuracy of the translations.

Data analysis

The analysis was conducted independently by two of the investigators in four stages. First, the analysis involved classifying the responses into three categories based on the intent of the study. This stage involved a deductive treatment of the data; putting all the responses into three groups based on the already described occasions (i.e., before, while and after the match).

The second step was to divide all the responses in each category (developed in the first step) into positive and negative subcategories. Examples of positive effects comprised: It enhances focus and attention" and "It promotes decision making skill". Some of the negative effects were the possibility of ST to increase stress level and discourage by self criticism.

The third stage was to divide the provided responses into text units. A text unit could be a single word, phrase, or sentence relating to a single idea or meaning. The fourth and final stage of analysis was inductive in nature. After unitizing the entire corpus, the units were read and conceptually similar ideas and meanings were organized into nine response categories, representing the perceived positive and negative effects of ST (see Table 1). To come up with more overarching categories these nine response categorise were further clasped into three major categories: cognitive, emotional, executive, representing the effects of ST on the athletes performance at mental and behavioral levels (see Table 2).

Data analysis was completed when all text units could be adequately classified into the existing categories, a situation known as theoretical saturation (Miles & Huberman, 1990).It is worth noting that some of the response units could simultaneously fall under more than one category; however, each example was identified as fitting into only one category based on the two coders' agreement. In the case of disagreement over the classification of a particular text unit, the unit was re-examined and discussed until the coders reached a consensus.

Findings and Discussion
In this section, we provide an overview of the distribution of the response categories, followed by a discussion of the developed categories. Table 1 presents the classification of responses for perceived effects of self talk in rank order.Table 2

provides the frequency distributions of the developed main categories and their relative subcategories that indicate the perceived effects of self talk in football competitions.

A quantitative look at general effects of self talk
The main research objective was to find out how football players perceived the positive and negative effects of self- talk on their performance in critical competitions. Participants generated 154 responses for different questions targeting this objective in the questionnaire. The provided responses were categorized based on the categorization scheme already discussed in section 2.2. The categorized responses were placed into nine categories in rank order of their frequency (see Table 1). Positive effects comprised more than 80% of the perceived effects of ST, while negative effects comprised less than 20% of the responses. The three most cited positive effects of STwere: "It enhances coordination with teammates" (15.6%), "It enhances focus and attention" (12.5%), and "It promotes decision making skill" (11.4%).Conversely, among the most cited negative effects of ST were the possibility of self-talk to "increase stress level" (8.3%), "It can weaken confidence through self-criticism" (6.75), and "It discourages by dwelling on significant others' negative thoughts" (4.6%). These results indicate that ST primarily increases football players' coordination with teammates on the pitch as through self-talk they review each other's techniques before entering the pitch and mentally practice how to act in while-match accessions. When asked how ST improves their coordination with teammates, for instance, "Through self-talk I review the sentences that I say to my teammates during the match to create a harmonious play", one respondent reported. Another player reported, "I review the words and utterances that the coach has asked me to say to my teammates during the match". Similarly,

other responses evidenced the importance of ST in harmonizing the events during the match, particularly during critical moments that the players need to psyche up the overall team sprit to perform more efficiently.

Table 1. Rank order of players' cited positive and negative effects of self-talk on their performance

Perceivedeffects of self-talk	No. of responses	Percentage of category
Positive Effects		
1. It enhances coordination with teammates.	30	15.6
2. It enhances focus and attention.	24	12.5
3. It promotes decision making skill.	22	11.4
4. It decreases anxiety and psyches up	16	8.3
5. It motivates to increase efforts.	15	7.8
6. It deters behaviors that have negative consequences.	14	7.2
7. It helps to cope with defeat in post match period.	12	6.2
8. It decreases reaction time.	11	5.7
9. It helps review/rehearsematch techniques and tactics.	9	4.6
Total	**154**	**80.2**
Negative Effects		
1. It can increase stress level.	16	8.3
2. It can weaken confidence through self-criticism.	13	6.7
3. It discourages by dwelling on significant others' negative thoughts.	9	4.6
Total	**38**	**19.7**
Grand Total	192	

Further responses indicated that before entering the pitch thinking about incoming events and reviewing them provides them with consciousness of their behavior in the actual moments that they will encounter in the pitch. Being conscious about the incidents, which is triggered by self talk terms or imagination prepares them for more harmonious performance. Engaging in ST, then, can provide a mental preparedness for the players to have a ready-made mental plan of what they should do and how they should coordinate with other teammates to handle the incidents inside and outside the pitch to reach their objectives.

The second most cited positive effect of ST was to enhance focus and attention on players' moves (see Table 1). This suggests that when the players think of their own as well as the opposing players' moves in advance, this provides a preplanned scenario of the events which has been reviewed through self-talk. In fact, ST appears to functions as a pseudo competition that has been held several times in abstraction before embarking on the real competition. Therefore, it can be discerned that players who experience ST before entering the pitch, will have better concentration on their moves and perform more effectively than those who are not

aware of such a skill. The third most cited positive effect of ST was to increase decision making skill (see Table 1). One of the key factors that can determine the fate of a team in critical matches is the players' particularly the strikers' or goal keepers' correct decision to act in the shortest possible time without procrastination. Scoring a goal can happen in a second or less in a football competition. Hence, the players' right and immediate decision is extremely crucialin certain critical occasions (e.g., scoring a goal or reacting to it by the defenders or the goal keeper). ST, as the participants' concur, can enhance their decision making skill so that through inner conversation the players sharpen their skills in making correct decisions to act upon with precision in the shortest time.

Decision making is a mental process that can be enhanced by mental strategies like ST. Self talk provides a mental practice by means of repeating certain words (i.e., verbal cues). Hence, players can choose these verbal cues to practice so that the reactions can be prompted by the given verbal cues.Verbal cues used through ST have been proposed to influence functions of information processing thereby positively influencing performance (Landin, 1994). Referring to the mental rules that govern control of behavior Landin (1994) also suggests that verbal cues may help the beginners' search for correct task stimuli, as well as aid the decision-making process by reducing the number options available.

Positive and negative roles of ST have also been discussed by previous research. For example, Hoigaard and Johansen (2004) state that ST is an asset that increases self-confidence, motivation, concentration, and performance. In contrast, negative ST is supposed to be critical, distracting, self-demeaning, and to have a negative influence on performance and movement as it increases self-doubt and anxiety.

As discussed earlier, of the total 154 responses indicating perceived effects of ST by the participants, 9 categories representing general effects of ST were developed. Further classification of these initial categories resulted in identification of three major categories labeled as *cognitive*, *emotional* and *executive* that represented the effects of ST further classified under the two more overarching layers labeled as*mental* and *behavioral,* which are presented in Table 2 below.

Mental effects of self talk

As Table 2 illustrates, mental effects of ST comprised two subcategories as *cognitive* and *emotional*. Cognitive effects refer to the influence of individuals' repetition of the words or cues to themselves through self-talk to improve their cognitive skills (e.g., focusing on their performance, making decision, and learning new skills).Focusing on their actions, for instance, can give athletes a greater sense of predictability and control over their training and competition. Similarly, being aware of and controlling reactions by means of ST can significantly impact the players' performance. Burton and Raedeke (2008) notes that one of the important roles of self-talk is to control how we react to uncontrollable and unpredictable moments. They further hold that athletes should be aware of the effect of self-talk on different type of situations for instance injury, stress, anxiety, challenge, concentration, quick reaction, excitement and performance block.

Emotional effects, on the other hand, encompassed those effects of ST that provide emotional benefits that can ultimately boost the players' overall performance in critical competitions. Instances of emotional category included both positive effects of ST such as enhanced motivation, helping to cope with defeat, and psyching up. Examples of negative emotional effects of ST suggested the potential drawback of ST to increase stress level among the targets and discourage them by focusing on their weaknesses. For instance, one player

reported that he always keeps thinking of his gross mistakes and criticizes himself for his mistake. Such negative self-suggestions are likely to lower the confidence level of the athletes thereby adversely affecting their performance.

Behavioral effects of self talk
Besides the mental effects, several behavioral influences of ST were reported by the players. Behavioral category comprised those effects that could be identified in executing different techniques and tactics at individual or team level.

Behavioral changes as a result of ST are closely influenced by mental changes. The increased attentional focus on one's execution of techniques can bring about beneficial changes in performance. Therefore mental and behavioral effects collaboratively influence the athletes' performance. Previous research acknowledges the effect of ST on performance. Hardy, Jones and Gould (1996) proposed that ST can enhance performance through increase in confidence and anxiety control.

Table 2. Frequency distributions of effects of ST at mental and behavioral levels

Category	No. of responses	Percentage of category
MENTAL LEVEL EFFECTS		
Cognitive		
It enhances focus and attention.	24	12.5
It promotes decision making skill.	22	11.4
It decreases reaction time.	18	9.3
It helps review/rehearse match techniques and tactics.	9	4.6
Total	**73**	**38.0**
Emotional		
It motivates to increase efforts.	15	7.8
It helps to cope with defeat in postmatch period.	12	6.2
It decreases anxiety and psyches up.	11	5.7
It can weaken confidence through self-criticism.	13	6.7
It can increase stress level.	16	8.3
It discourages by dwelling on significant others' negative thoughts.	9	
Total	**76**	**39.5**
BEHAVIOR LEVEL EFFECTS		
Executive		
It enhances coordination with teammates.	28	14.5
It deters behaviors that have negative consequences.	14	7.2
Total	**42**	**21.8**
Grand Total	192	

Examples of behavioral effects of ST were: enhancement of coordination among players in different situations (e.g., before-the- match and while-the-match) and preventing negative behaviors (e.g.,

conflict with other players and dispute with the referee). One respondent contended that ST helps to remind him of the coach's instructions and his advice to avoid 'picking on' others during the

match. No wonder, conflict with the referee or the opposing team members can result in harsh penalties. Thus ST can be a suitable controlling mechanism to prevent negative consequences thereby benefiting the overall competition processes.

Conclusion

The overall purpose of this study was to examine the perceived effects of self-talk among football players. Data were collected through survey questionnaire from a group of Iranian elite football players qualified for national football team. The players' responses were thematically analyzed for both positive and negative effects of ST in different occasions around official football competitions.

The analysis indicated that players perceived ST as impacting their performance both positively and negatively. The perceived effects could be characterized at two levels: mental and behavioral. Most important positive effects of ST at mental level included its cognitive benefits such as enhancing focus and attention, promote decision making skills and decreasing reaction time. Also, mental level benefits comprised emotional effects of ST such as motivating players to increase efforts, coping with difficult situations, and decreasing anxiety and psyching up. Emotional effects had negative aspects too. Weakening confidence by self-criticism, and dwelling on negative thoughts and increased stress were among negative effects. At behavioral level, ST was perceived to benefit execution of tasks by increased attentional focus and creating an awareness of the negative consequences of certain behaviors thereby benefiting the overall performance of the individuals and that of the team. These findings have implications for football players as well as team managers so that being aware of ST as a metal skill can promote players efficiency in the field and also provide the team managers to discover and work on

the players ST skills to gain desirable results.

References

Burton, D., &Raedeke, T. D. (2008).Sport psychology for coaches.Champaign, IL: Human Kinetics.

Dagrou, E., Gauvin, L., &Halliwell, W. (1992).Effets du langagepositif, ne´gatif, et neuter sur la performance motrice [Effects of positive, negative, and neutral self-talk on motor performance]. Canadian Journal of Sports Sciences, 17, 145–147.

Defrancesco, C., & Burke, K. L. (1997). Performance enhancement strategies used in a professional tennis tournament. International Journal of Sports Psychology, 28(2), 185-195.

female youth soccer performance. The Sport Psychologist, 18, 44-59.

Hackfort, D., &Schwenkmezger, P. (1993). Anxiety In R.N. Singer, M. Murphey, & L.K. Tennant, (Eds.). Handbook of research on sport psychology (pp. 328–364). New York: Macmillan.

Halliwell, W. (1990).Providing sport psychology consulting services in professional hockey. The Sport Psychologist, 4, 369-377.

Hardy, J. (2006). Speaking clearly: A critical review of the self-talk literature.Psychology of Sport and Exercise, 7, 81-97.

Hardy, J., Hall, C. R., & Hardy, L. (2005). Quantifying athletes' self-talk. Journal of Sports Sciences, 23,905-917.

Hardy, L., Jones, G., & Gould, D. (1996). Understanding psychological preparation for sport: Theory and practice of elite performers. Chichester, UK: Jones Wiley & Sons.

Hardy, L., Jones, G., & Gould, D. (1996).Understanding psychological patterns for sport: theory and practice. Chichester, UK: Wiley.

Highlen, P. S., &Bennet, B. B. (1983). Elite divers and wrestlers: A comparison between open-and closed-skilled athletes. Journal of Sport Psychology. 5, 390-409.

Johnson, J. J. M., Hrycaiko, D. W., Johnson, G. V., & Halas, J. M. (2004). Self-talk andfemale youth soccer performance. The Sport Psychologist, 18, 44–59.

Kendall, G., Hrycaiko, D., Martin, G., & Kendall, T. (1990). The effects of an imagery rehearsal, relaxation, and self-talk package on basketball game performance. Journal of Sports &Exercise Psychology, 12, 157-166.

Landin, D. (1994). The role of verbal cues in skill learning.Quest, 46, 299–313.

McPherson, S.L. (2000). Expert-Novice differences in planning strategies during collegiate singles tennis competition. Journal of Sports &Exercise Psychology, 22(1), 39-62.

Meichenbaum, D. (1977). Cognitive-behavior modification: An integrative approach. New York: Plenum Press.

Miles, M. B., &Huberman, A. M. (1990).Qualitative data analysis: a sourcebook of new methods. Newbury Park, CA: Sage.

Rotella, R. J., Gansneder, B., Ojala, D., & Billing, J. (1980). Cognitions and coping strategies of elite skiers: An exploratory study of young developing athletes. Journal of Sport Psychology, 2, 350–354.

Thomas, T. R., & Fogarty, G. J. (1997). Psychological skills in training in golf: the role of individual differences in cognitive preferences. The Sport Psychologist, 11, 86-106.

Weinberg, R., Grove, R., & Jackson, A. (1992). Strategies for building self-efficacy in tennis players: A comparative analysis of Australian and American coaches. The Sport Psychology. 6(1), 3-13.

Zinnser, N., Bunker, L., & Williams, J. M. (2006).Cognitive techniques for building confidence and enhancing performance. In J. M. Williams (Ed.), Applied sport psychology: Personal growth to peak performance (5th ed.) (pp. 349–381). New York, NY: McGraw-Hill Companies, Inc, Higher Education.