Investigation of Supplement (Multivitamin plus to Mineral) Usage at Athletes and Non-Athletes Students

Ali Reza Amani*,
1Sport Science Faculty, Shomal University, Iran
Email: a.amani@dralireza.ir

Abstract:
The purpose of current study is to determination of supplement consumption at young students. Supplement industry is becoming one of the most revenue at the world. Nowadays revenue of this business is more than billions dollars annually. Have been reported several health and fitness benefit by using supplement among athletes and non-athletes people. Recently wide using the herbal and non-herbal supplement reported at the several investigation. Using supplement such as multi vitamin and minerals are recommended by several medicine and sport societies. This investigation is looking to find usage of supplement among athletes and non-athletes students.

It has been reported by National Health and Nutrition Examination using 32% multivitamin plus minerals among the adults and young people at both gender. Number of 243 athletes and non-athletes students were participated in this investigation. Has been reported one third of subjects were used supplement (Multivitamin plus to mineral) at minimum one past year and around of 20 percent of subject were used these type of supplements by regularly.

Result of this research has been shown that 37.3% of participated were used multivitamins plus to multiminerals supplement in past year and 19.5% of participates regularly used this type of supplement at this duration. Analyzing data has been shown that, there was difference pattern in supplement usage between athletes and non-athletes students and using was more pervasive in athlete’s student. There are several variables that may effect on supplement usage by the students such as, level of fitness, health conditions, injuries, claim and weather conditions, cost and accessibilities of supplement.

Keywords: Supplement, Minerals, Physical Activity, Fitness, Hemostasis
**Introduction:**
Dietary supplement use is increasingly common in the United States. Multivitamin formulations with or without minerals are typically the most common type of dietary supplement reported in surveys and studies that collect data relating to dietary supplement use [2]. Consequently, current detailed data on the prevalence of supplement use and characteristics of users are needed to inform the design, analysis, and interpretation of epidemiologic studies of diet or lifestyle and health. A high prevalence of vitamin and mineral supplement use would call for assessment of supplement use in any study that requires nutrient intake data, since supplements often contain 100 percent or more of the daily value of one or more nutrients. Differences in demographic and behavioral characteristics between supplement users and nonusers would demonstrate the importance of including supplement assessment in both the planning and analysis of any epidemiologic study of diet or lifestyle characteristics and health, to minimize findings derived from confounding with supplement intake rather than from the characteristic itself [14].

The usage of supplements among the active and inactive people has increased over the past years. Many studies have indicated that a high percentage of the adults in the USA use supplements. In 1996, more than $6.5 billion was spent on dietary supplements in the USA [11]. Moreover, the sales of dietary supplements increased from $8.8 billion in 1994 to $15.7 billion in 2000 [4]. The National Health and Nutrition Examination Survey (NHANES) reported that approximately 52% of all Americans are taking some kind of supplements [1]. There are many types of herbal and non-herbal supplements that are recommended for improving the health, which can be in combination with or without exercises [19]. Nonetheless, some of these supplements are used for both high performance and in people’s daily lives to prevent injuries or to win competitions or even to attain the fitness objectives [8, 15, 17].

In line with this, some conducted studies reported that more than $1.4 billion were spend on supplements by Americans for ergogenic aids. It is also noted that 1.2 million Americans use supplements regularly [12]. This research further showed that a large part of the investigated population were college students. Another research indicated that approximately 48.5% of all the undergraduate students used some kind of supplements, while such supplements were either vitamins or minerals [13]. They mainly use supplements to improve their performance or to reduce their weight. It needs to be mentioned that there are several types of herbal and non-herbal supplements. Hence, the media and books are urged to provide more information in order to show people and athletes the right way to use the supplements. Information concerning the usage of supplements should be updated if there are to be any changes in their biochemical structures. The overall review of the literature supports the viewpoint that multivitamin/mineral supplements are unnecessary for athletes or other physically active individuals who are on a well-balanced diet with adequate calories [20].

The effect of weather and clime on supplement usage has been investigated in some studies. It has been shown that using some supplement such
as types of minerals and vitamin are more using in warm claimed countries than else [6]. There are several reasons that may need to more focus in this area. Claimed and weather, habits, genetics, cost of supplements and level of physical activities and some more variables may effect on the supplement usage [9, 18].

The purpose of current investigation is to determine of mineral and multivitamin supplement usage among athletes and non-athletes students. The researcher in this study assumed that the athletes student were using more mineral and multivitamin than non-athletes students base on their demand of activities profile times the questioner was visited and 259 incomplete and 243 completed answers were submitted. Dietary supplement intake was assessed by asking participants in online questioner whether they had taken any vitamins, minerals, supplements, including prescription supplements, in the recent 12 months. The questioner was involve of demographic and main question including type and quantities of multivitamins-multiminerals supplement consumption. The knowledge of supplements, reason of supplement using, reason on non-users, claim and weather on supplement consumption were included of the questioner.

Methods:
Descriptive research method was applied for this survey. 243 male students were participated in this research. Over the 1000 emails were sent to university students, number of 243 were replied (112 replied from non-athletes and 131 replied by athletes students). All subjects were between 20 to 30 years old.

The standard descriptive questioner were used for this research. The questioner after standardization according to ethical points and structures were implemented as the online survey by Survey Monkey service. The Report of answers were exported to the excel file. The number of 502 Dietary supplement intake was assessed by asking participants in online questioner whether they had taken any vitamins, minerals, supplements, including prescription supplements, in the recent 12 months. The questioner was involve of demographic and main question including type and quantities of multivitamins-multiminerals supplement consumption. The knowledge of supplements, reason of supplement using, reason on non-users, claim and weather on supplement consumption were included of the questioner.

Statistical Method:
The descriptive statistical method was used to analyzing data in this study. SPSS and excel software have been used to analysis of data. Percent of supplement consumption has been demonstrated on graph and data records.

Results:
Reports of analyzing the data has been shown that 43.2% of participated in this study never used any supplement during last one years. It has been reported 19.5% of students in this survey were used regularly multivitamine-multimeneral supplement while 37.3% of students were used this type of supplement not regularly and just consumed irregularly (figure 1).
The result of the current investigation has been shown that 59.1 of irregular consumption were from athletes students, while 40.9 of irregular usage were from non-athletes students. It has been demonstrated that 63.7 of regular consumption were from athletes students, while 36.3 of regular usage were from non-athletes students.

Figure 1. Descriptive data regarding multivitamine-multimeieral supplement using among subjects.

Figure 2. Compare of regular and nor regular supplement consumption among athletes and non-athletes Students.
**Conclusion:**
There are several research that have been reported increasing of supplement consumption among people on the developed and in-developing countries [3]. This research has been shown the same result in increasing of supplement consumption in two of developing countries. Result of current study has been shown that, there is popular tendency to the some supplements which have health benefits, which was reported in several same investigation [5, 7, 10].

Continued efforts to monitor dietary supplement behavior and use of methods that may improve the accuracy of this assessment and monitoring should be encouraged. Evidence suggests that adults and adolescents with suboptimal intakes from food sources are less likely to be dietary supplement users. Also, some subgroups of the population who report higher prevalence rates for use of both MVMM products and single vitamin and mineral supplements may be at increased risk of excessive intakes [16]. Although MVMM formulations do not typically contain excessive amounts of micronutrients, these products do contribute to the total vitamin and mineral intakes of these individuals [3].

The result of current studies has been demonstrated that main reason for using by athletes student were physical activities condition while the knowledge of student in these types of supplements was not differences in two groups. By the way some reason such as cost of supplements and trustfully of supplements brands were mentioned in several answerers.

**References:**