

Improving Healthy Lifestyle Skills of Female Students through Modern Tools

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Abstract. *This study explores the effectiveness of a multimedia-based mobile application designed to promote daily wellness exercises among female university students. A preliminary survey was conducted among the students, which revealed that while many of them expressed a strong interest in engaging in health-promoting physical activities, they lacked knowledge about appropriate exercise routines and daily workout norms. A specially developed mobile app, made available through the Google Play Market, was used to support the development of a healthy lifestyle among these students. During the experimental phase, selected students were placed into formative groups and provided access to the application. Observational results showed that 80% of the participants found the "My Wellness Exercises – My Healthy Lifestyle" app to be highly convenient and reported significant improvements in their health habits.*

Key words: *Healthy lifestyle, multimedia, tool, mobile application, superset method.*

Relevance of the research. According to the World Health Organization, creating conditions for the physical, mental, and emotional well-being of young women is considered a top priority for the future of every society [1]. A clear example of the efforts made in this direction is the Presidential Decree No. PQ-146 of the Republic of Uzbekistan, dated March 1, 2022, "On the Organization of the Activities of the State Committee for Family and Women" [2]. In modern society, the promotion of a healthy lifestyle—particularly among female students—remains one of the most urgent issues. Excess weight and its negative consequences have become a serious concern in both developed and developing countries [3].

The ancient Greek historian and philosopher Plutarch, when describing education in Spartan schools, stated: "In reading and writing, children were taught only what was absolutely necessary, while the rest of their training aimed solely at instilling unquestioning obedience, endurance, and the art of conquest." It is important to note that in Sparta, special attention was also paid to the physical development of girls. Plutarch wrote: "Girls, like boys, participated in running, wrestling, and discus and javelin throwing exercises. These activities not only ensured their own health but also the strength and health of their future offspring. Furthermore, women who were physically fit experienced easier childbirth."

It is evident that the foundation of upbringing in Sparta was based on physical training, while intellectual development was regarded as an individual pursuit. In Athens, the ideal human being was someone who was both physically and morally developed [4].

In Uzbekistan, fostering a healthy lifestyle among women and girls is a key social and political factor contributing to the successful implementation of educational efforts and the overall development of

society [4]. It is well known that the current ecological situation—such as air and drinking water pollution, unstable atmospheric pressure, increased radiation levels, and other environmental challenges—has led to a disruption in the daily nutritional requirements for essential elements like proteins, fats, carbohydrates, minerals, and vitamins.

At the same time, the rapid advancement of information technology and the widespread use of smartphones have created new opportunities for addressing these challenges. This study aims to investigate the effectiveness of multimedia tools—particularly a specially developed mobile application—in promoting a healthy lifestyle among female university students and significantly improving their overall wellness.

The urgency of this research lies in its potential to modernize traditional physical education practices by integrating digital tools, thereby enhancing endurance and other physical qualities. It should be emphasized that daily physical activity—even for as little as 15–20 minutes—is sufficient to promote better blood circulation and overall physical well-being. The more consistent and frequent the exercises, the healthier the body becomes [5].

Research objective: To promote a healthy lifestyle among female university students through wellness activities based on multimedia tools.

Research tasks: To develop and implement a multimedia-based approach for encouraging healthy lifestyle habits among female students.

Research methods: For the purposes of this study, a specially developed mobile application titled *“My Wellness Exercises – My Healthy Lifestyle”* was installed on the smartphones of selected female university students through the Google Play Market. A test group was formed, consisting of female students who were instructed to use the application in a structured manner. The app included the following sections:

- Age
- Weight
- List of Exercises
- Preferred Training Time

The application provided users with a three-day workout program followed by a rest day:

- Day 1: 4 exercises, each lasting 30 seconds
- Day 2: 5 exercises, each lasting 30 seconds
- Day 3: 6 exercises, with durations of 40, 50, and 60 seconds
- Day 4: Rest day

Ten female university students were selected for the experimental phase. During the trial, they used two variants of the workout sessions, performing 4 to 5 sets of 2-minute exercises regularly using the superset method.

Results and Discussion

Promoting a healthy lifestyle among female university students is a complex task that requires an interdisciplinary approach. Multimedia technologies offer powerful tools to achieve this goal. However, lasting results require a combination of education, social interaction, and regular physical activity.

The initial experimental study was conducted with students from the Psychology Department of Andijan State Pedagogical Institute, who gave their informed consent to participate. The trial was implemented in three stages. First, a formative group was established. Then, the *“My Wellness Exercises – My Healthy Lifestyle”* mobile app was installed on each participant’s smartphone or tablet.

Consistent daily use of the app indicated a positive impact on developing a healthy lifestyle among the female students. According to an initial survey, 60% of participants reported occasionally performing wellness exercises, 20% said they rarely did, and another 20% stated they did not exercise at all.

Table 1: The results of this research show that wellness training programs implemented through multimedia technologies—particularly via mobile applications—can be highly effective in promoting healthy lifestyles among female students. The use of the “*My Wellness Exercises – My Healthy Lifestyle*” app increased physical activity levels, strengthened interest in healthy living, and led to positive changes in daily habits.

According to the findings, 80% of participants began to engage in regular physical activity, experienced normalized body mass index levels, reported reduced fatigue, improved mood, and developed healthy habits such as waking up early in the morning. These outcomes demonstrate that the recommended app and exercise program were appropriately selected and effective.

However, 20% of participants showed weak or negative results, suggesting the need for further research and more personalized approaches. This indicates the necessity of introducing additional motivational tools and considering individual psychological and social factors for certain students.

Preliminary and Subsequent Results of Implementing Multimedia-Based Wellness Activities Among Female University Students

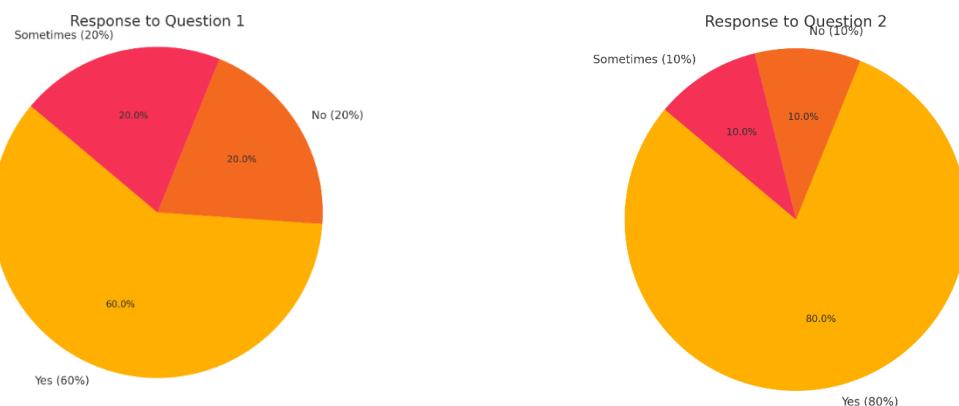
Survey Item	Criterion for Calculating the Average Value	Yes	No	Sometimes
Are you actively engaged in performing healthy lifestyle exercises to stay fit?	$100 \gg 10 = 10\%$.	60%	20%	20%
Have the multimedia wellness exercises we recommended had a positive impact on your health?	$100 \gg 10 = 10\%$.	80%	10%	10%

1-Table.

According to literature analysis, the use of mobile applications can serve as an effective tool for promoting a healthy lifestyle [6]. Therefore, the mobile application developed for this study was designed with consideration of local conditions and cultural mindset. Within the study, the superset method was employed, in which two sets of physical exercises were performed and evaluated based on duration and frequency metrics.

The final results demonstrate that an interdisciplinary approach, combining education, technology, and psychological strategies, is effective in fostering a healthy lifestyle. In particular, approaches utilizing mobile technologies have proven to be highly motivating and practically effective among youth. This highlights the potential for expanding such technologies to other social groups in the future.

Initial and Subsequent Results of Implementing Multimedia-Based Wellness Activities Among Female University Students



№1Diagramm.

Furthermore, according to the research results, normalization of the body mass index (BMI) was observed among the female students who used the application. More than 80% of the participants reported an increased interest in physical activity, improved physical performance, and noticeable improvements in their overall lifestyle. These included waking up early, enhanced mood, reduced feelings of fatigue, and a general shift toward healthier daily habits. These changes were confirmed by the end of the experimental phase involving the female student test group that used the recommended wellness app.

It was also found that female students became more interested in engaging in wellness exercises during their free time. This result indicates the effectiveness of the mobile application. The process of adopting a healthy lifestyle showed a significant upward trend by the end of the trial period.

However, it is noteworthy that 20% of participants demonstrated negative or minimal outcomes. This highlights the necessity for additional research. It is likely that these particular female students may require supplementary motivation or more personalized approaches [7].

When evaluating the results of the study, it is important to consider that participants' awareness of using new technology may have influenced their motivation [8].

CONCLUSION

The findings of this study indicate that the use of mobile applications based on multimedia tools serves as an effective method for promoting a healthy lifestyle among female university students. Through the experimental use of the specially developed mobile application “*My Wellness Exercises – My Healthy Lifestyle*”, over 80% of participants began performing regular physical exercises. Notable positive changes were observed, including normalization of body mass index, early waking, reduced fatigue levels, and improved mood.

During the course of the study, it was revealed that although most female students were willing to engage in wellness activities, their lack of knowledge regarding proper workout routines and exercise loads remained a barrier. The proposed mobile application was designed to address this specific need and acted as a guiding tool in their adoption of a healthier lifestyle.

Additionally, the study recorded weaker results among 20% of the participants, suggesting that some students may require additional motivation, psychological support, or personalized approaches. This highlights the necessity of an integrated approach to promoting a healthy lifestyle—one that combines educational, technological, psychological, and social dimensions.

Overall, organizing and encouraging wellness activities through mobile technologies plays a crucial role in increasing female students' physical activity, improving their health, and fostering positive lifestyle changes. The results of this study provide a strong foundation for the future expansion of such technological approaches and their application across other age groups.

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