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Frequency and Awareness of Lifestyle Medication Use among University Students in Kut City, Iraq

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Abstract

Background: Lifestyle medicines (LSMs) are used to help people alter their lifestyles. These medicines are used for purposes other than medicine or health.

Aims & Objectives: The objective of the study was to evaluate the prevalence of LSM use among the students of the university, the rationale for their utilization, and the kinds of consequences, in order to give useful data for reasoning and prevention of this problem.

Method: A cross-sectional descriptive research study was carried out. university students in Wasit, Iraq, by using a self-administered questionnaire. Participants were usefully recruited through online platforms. The questionnaire consist of four sections, including sociodemographic profile, knowledge, and awareness in a validated questionnaire format.

Results: A total of 500 students aged between 18-25 and more were surveyed. The number who utilize LSMs was 470(94%). The most common agents utilized by a high number of students were vitamins 136(28.94%) followed by Non-steroidal anti-inflammatory drugs 41(8.72%), then caffeine-containing substances 38(8.09%). The most frequent adverse effects related to use of LSMs were lethargy and fatigue and 68 (14.47%), and insomnia 41(8.72%).

Conclusion: Awareness of Lifestyle Medications (LSMs) was moderate, with medical advice being the primary source of information. The study found a high prevalence of LSM use, with vitamins being the most commonly used. Adverse effects varied among users, with fatigue and the lethargy being the most reported. Despite diverse perceptions toward LSMs, a significant differences in awareness were noted based on gender and study field, highlighting the need for targeted education and intervention strategies.

Keywords: Intervention strategies, Lifestyle medicines, LSMs, University Students

INTRODUCTION

The concept lifestyle medicine (LSM) has a multidimensional definition, and multiple definitions are widely utilized simultaneously since there is insufficient agreement on its definition, kinds, indications, and availability. However, a widespread consensus has emerged about drugs designed to enhance an individual's lifestyle [(1)].

These medications are being utilized for non-health or non-medical-related uses . It can be used to change a person's physical and mental characteristics as well as their appearance, such as enhancing academic achievement or altering and/or improving physical attractiveness. These medications, referred to as non-essential medications, are used to treat non-serious medical conditions that are not life-threatening or painful, such as baldness, impotence or erectile dysfunction, postponing menstruation, muscle development, mood swings, acne, and wrinkles [(2)]. Numerous pharmaceutical products and medications are classified as LSMs. These include medications used to prevent alopecia, such as finasteride , minoxidil, or hair tonics; bupropion for quitting smoking; orlistat for weight loss; onabotulinumtoxin A for wrinkles; sildenafil for erectile dysfunction; and aging marks; cyproheptadine for appetite enhancement; melatonin for sleep; and dietary supplements that may enhance physical appearance [(3)] .Instead of being used to treat a clearly defined and recognizable medical condition, these drugs are used to try to enhance one's quality of life [(4)].

The rise in lifestyle-related behaviors has led to increased use of medications aimed at enhancing personal well-being, often without medical supervision. This widespread usage raises ethical, safety, and public health concerns[(5)]. Furthermore, disease mongering, which is described as changing a minor illness into a serious medical concern and treating a moderate illness as a serious one, has exacerbated the medicalization of these disorders [(6)]Furthermore, the living environment of university students, economical issues, modernized life, and peer pressures are all regarded reasons that raise students' likelihood of using LSMs[(7)].

Most research have been conducted to explore the topic of LSM use, and some results have been published on the prevalence of LSM use among healthy adults and students [(3,8).] Rahman et al, 2010 indicated that lifestyle has itself become an objective of medical attention, and the control of these medications on the people requires to be more expanded [(1)] .Additionally, many of students who used LSMs acknowledged that the bulk of them were used needlessly [(3)] .Many LSMs have side effects; thus, knowledge of the most popular drugs among students is necessary to design preventive measures and raise awareness in order to decrease the use of LSMs. Additionally, it is important to examine the reasons for drug use as well as the prevalence of drug use in academic settings [(8)] . This study aimed to evaluate the prevalence, reasons, types, and adverse effects of Lifestyle Medication (LSM) use among university students in Kut City,

MATERIALS AND METHODS

Design of the Study

A pilot study and prior research showed in the field were used to verify a questionnaire-based study that included a series of multiple-choice questions with single-word answers, with the exception of two questions that had multiple answers [(9)] .

The four components of the questionnaire were used to gather information on sociodemographic traits, LSM knowledge, and the most widely used LSMs. Students' perceptions of utilizing LSMs are the most adverse affected.

Questionnaire size and method

Participants in the online survey are students of Wasit universities for weeks, this survey was disseminated via social media applications and published online via Google Forms.

Data collection

Students colleges at Kut city take part in this descriptive cross-sectional study, which was carried out between January and April of 2024. Conveniently, the participants were gathered from a number of social media sites, including Facebook, WhatsApp, Instagram, Messenger, and Telegram.

Our online poll asked participants to share their personal expertise regarding LSMS on social media. After being fully informed about the study's purpose and objectives, participants gave their consent to take part. Every participant was informed that their involvement in the study was entirely voluntary and that it was being conducted solely for research purposes. Demographic information included age , gender, university and colleges and the student current academic year. Student knowledge, awareness of the use of LSMs, the most frequently used LSMs , the most common adverse effects of LSMs and perception of students toward LSMs.

Inclusion and exclusion criteria

Undergraduate students of both sexes who were 18 years of age or older and living on university campuses in Wasit, Iraq, were included in the sampling study from the first to the last year of the academic studies, the questionnaire was distributed to all levels. Students without a medical diagnosis who were taking prescription and

over-the-counter drugs were included in the poll. Excluded are postgraduate students and those who have been found to utilize these drugs to treat severe and long-term illnesses.

Statistical Analysis

Statistics were measured using the Statistical Package for Social Sciences (SPSS) version 24.
The results were determined as using descriptive statistics. The Chi-square test was utilized to estimate the statistical significance of differences gender and study field .When the P value was less than 0.05, we regarded the differences to be statistically significant.

RESULTS

Demographic Characteristics

As shown in Table 1 and Figures 1-5, the study comprised 500 university students, with most aged between 22-24 years (56.4%), and the majority were females (62.2%). of the sample, reflecting a higher participation rate than males (37.8%). Kut University College had the largest representation (74%) among the participants, followed by Wasit University (21%) and Imam Al-Kadhim College (4.8%). Most students were in their fourth year of study (46.2%), residing predominantly in urban areas (93%).

Table 1. Participants' demographic characteristics, n=500

Category	Frequency	(%) Percentage
Age		
18-21 years	134	26.8%
22-24 years	282	56.4%
25 or more	84	16.8%
Gender		
Male	189	37.8%
Female	311	62.2%
Universities		
Wasit University	105	21%
Kut university college	370	74%
Imam Al-Kadhim College	25	5%
Stage of Study		
First	38	7.6%
Second	54	10.8%
Third	40	8%
Fourth	231	46.2%
Fifth	122	24.4%
Sixth	15	3%
Residency		
Rural	35	7%
Urban	465	93%

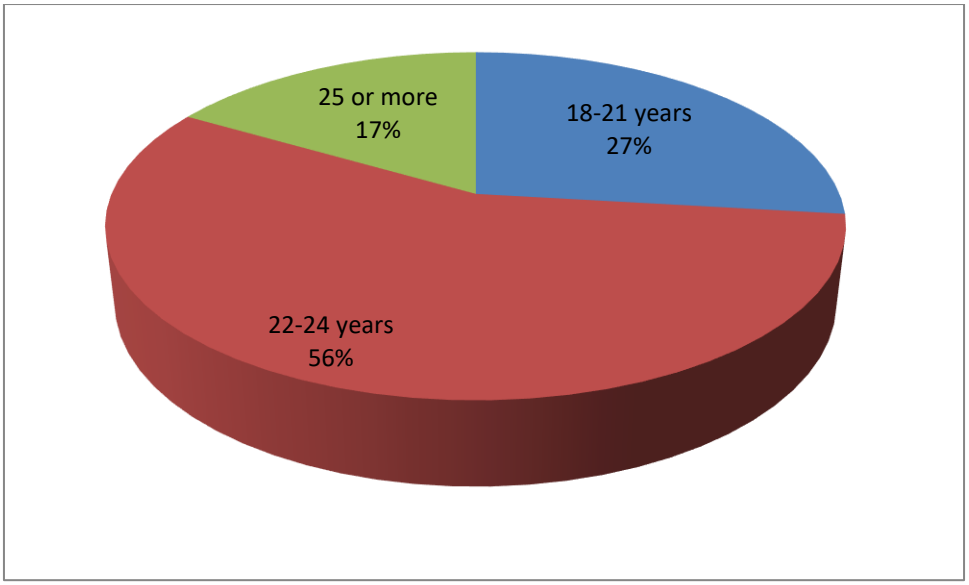

Figure 1: Age distribution of participants

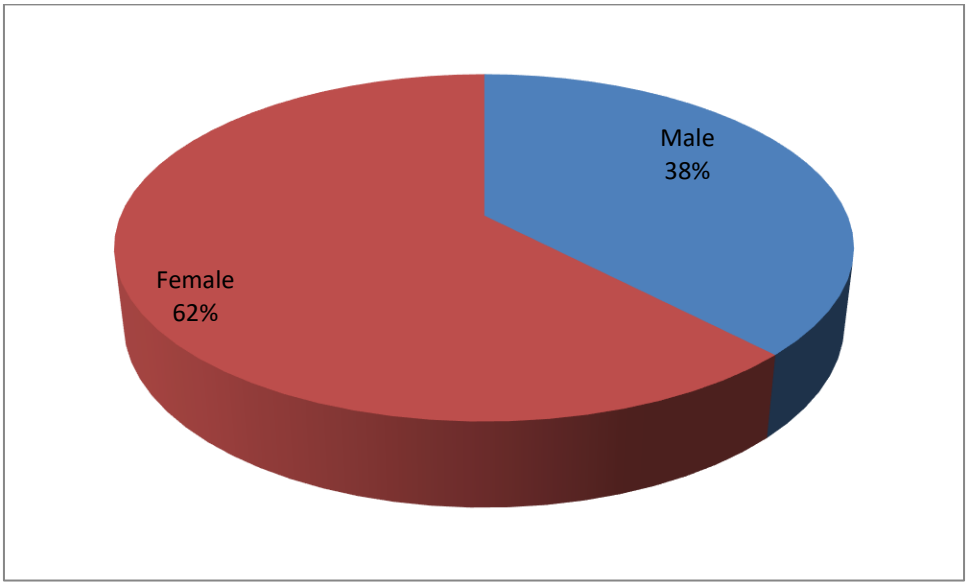

Figure 2: Gender Distribution of participants

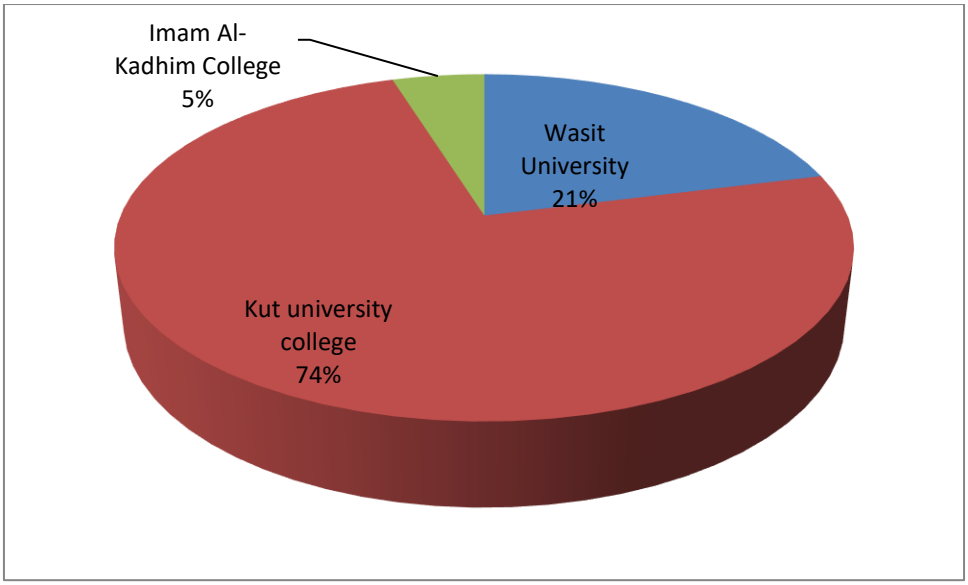

Figure 3: Universities Distribution of participants

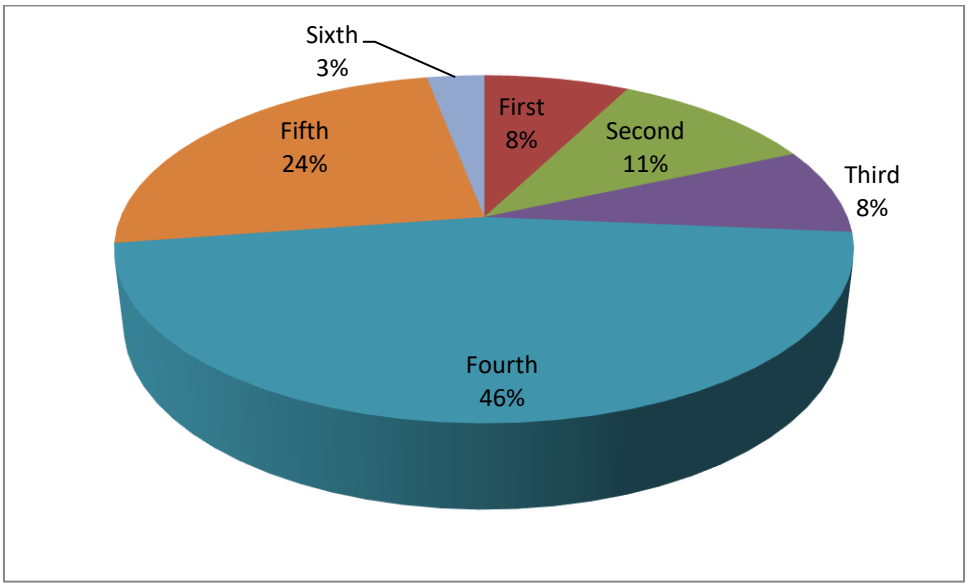

Figure 4: Stages Distribution of participants

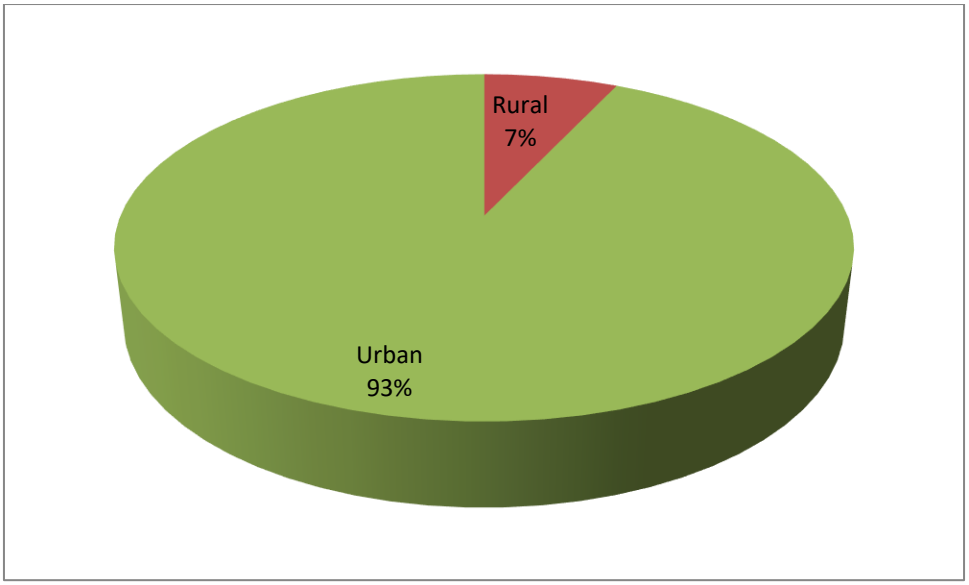

Figure 5: Residency Distribution of participants

Awareness and Information on LSMs

Regarding the students' s awareness of Lifestyle-Related Medications (LSMs), as depicted in Table 2 and Figures 6-9, 55.2% of the participants were aware of them, with medical advice being the most common source of information (35.4%). Notably, 94% of students reported using LSMs, with the majority having prior knowledge (26.6%) obtained from various sources, including friends, family, and the internet. Most students (58%) reported using one LSM, and the vitamins being the most commonly used (28.94%).

Table 2 : University students' knowledge and awareness of LSMs students n=500

Knowledge on LSMs	**Frequency**	**Percent**
Awareness of LSMs		
No	224	44.80%
Yes	276	55.20%
Students utilize LSMs		
Students number utilizing LSMs	470	94.00%
Students number not utilizing LSMs	30	6.00%
Source of Information		
None	40	8.00%
Taken with medical advice	177	35.40%
Seen in TV advertisement	9	1.80%
Others	24	4.80%
Had prior knowledge	133	26.60%
From friends	23	4.60%
From family	22	4.40%
From other sources (book or internet)	72	14.40%

Number of LSMs Taken		
0	58	11.60%
1	290	58.00%
2	103	20.60%
3	49	9.80%
Total	500	100.00%

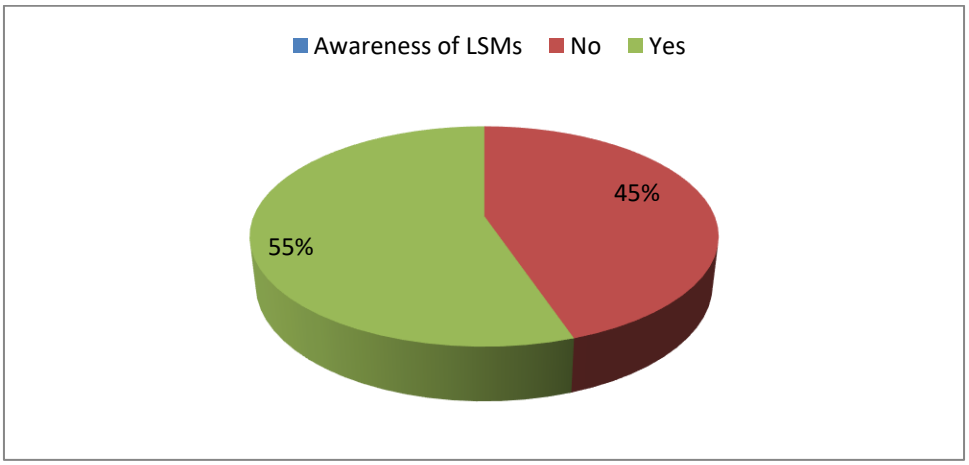

Figure 6: Awareness Concerning LSMs

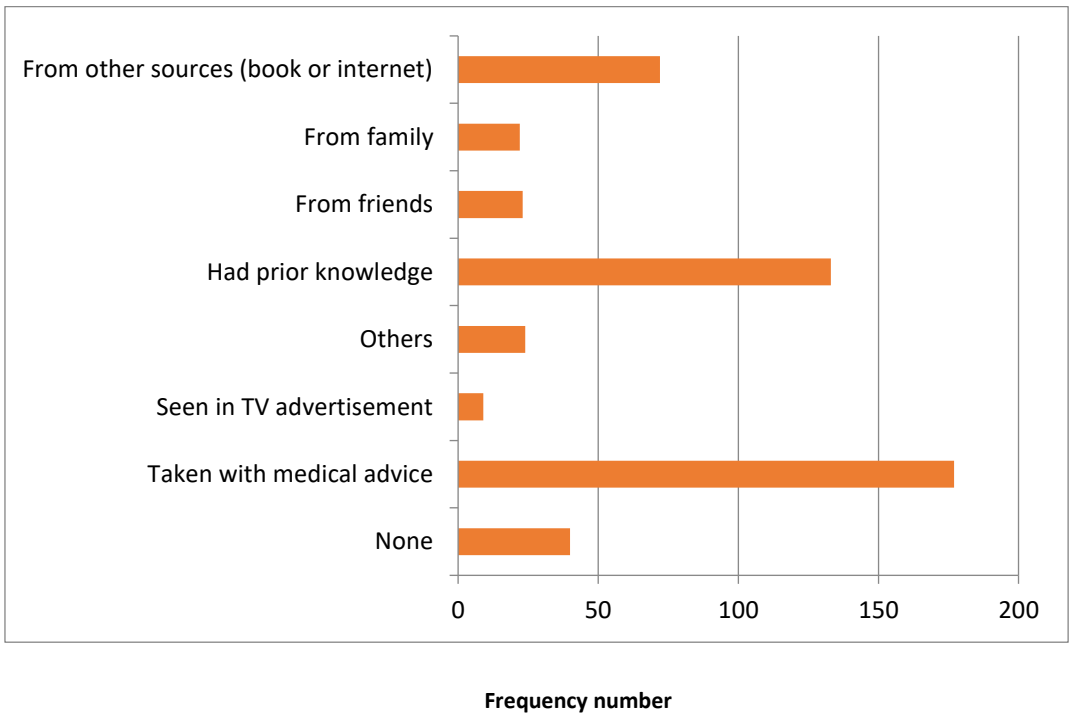

Figure 7: Source of Information About LSMs

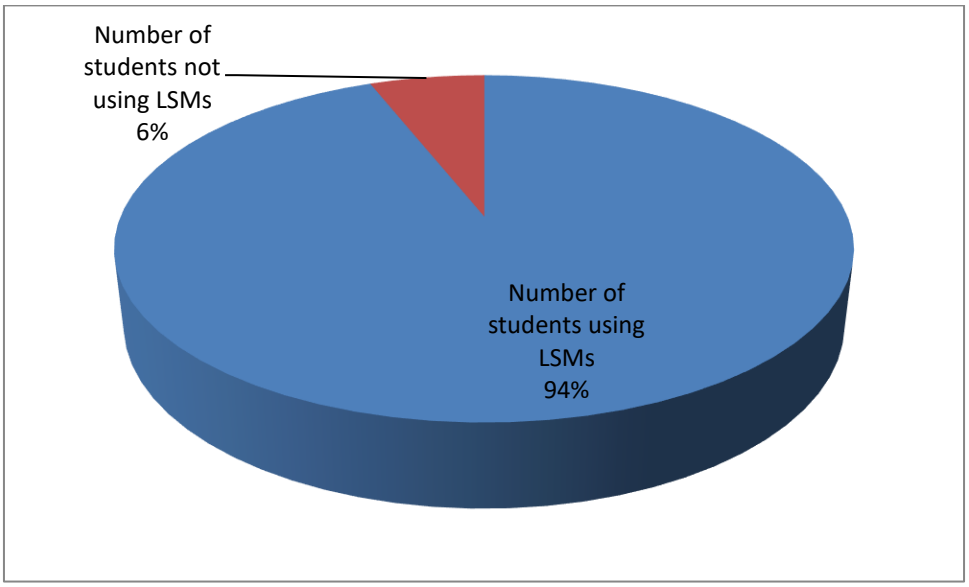

Figure 8: Student Using LSMs Distribution

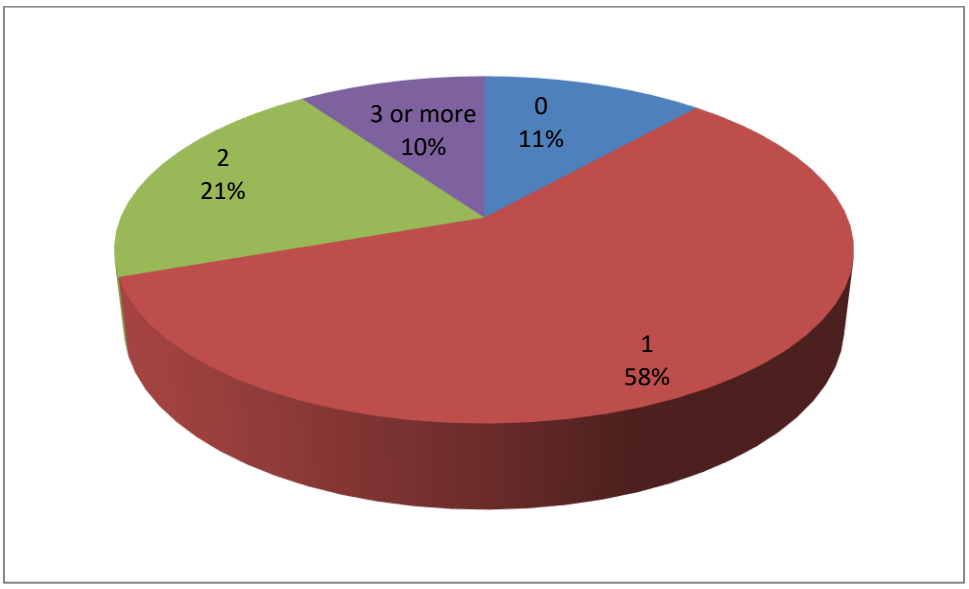

Figure 9: Number of LSMs Taken

Most Frequently Used LSMs

Vitamins were the most frequently used LSM among the participants, as indicated in Table 3 and Figure 10, with a usage rate of 28.94%, followed by other dietary supplements (10.43%) and non-steroidal anti-inflammatory drugs (8.72%). However, medications such as caffeine-containing substances (8.09%) and steroids for bodybuilding (3.19%) were also notable in usage despite potential health risks.

Table 3 The most commonly utilized LSMs by the students of the university., n=470

Medication	**Frequency**	**Percent**
Caffeine-containing substances	38	8.09%
Inderal for reducing fear of society or interviews	6	1.28%
Orlistat (Xenical) for weight reduction	22	4.68%
Nicotine replacements	9	1.91%
Benzodiazepines (Valium, Librium)	17	3.62%
Steroids for bodybuilding (Dianabol)	15	3.19%
Cyproheptadine (Periactin)	13	2.77%
Viagra	9	1.91%
Vitamins (A,B,C,D,E)	136	28.94%
Cream for pigmentation	26	5.53%
Marijuana (Hashish)	2	0.43%
Birth control pills (Katya, Sonia, Yasmin, Marvelon, etc.)	14	2.98%
Non-steroidal anti-inflammatory drugs (Aspirin, Actenac, Voltaren, etc.)	41	8.72%
Other dietary supplements	49	10.43%
Melatonin	32	6.81%
Minoxidil	19	4.04%
Norethisterone (Norlutin)	22	4.68%
Total	470	100.00%

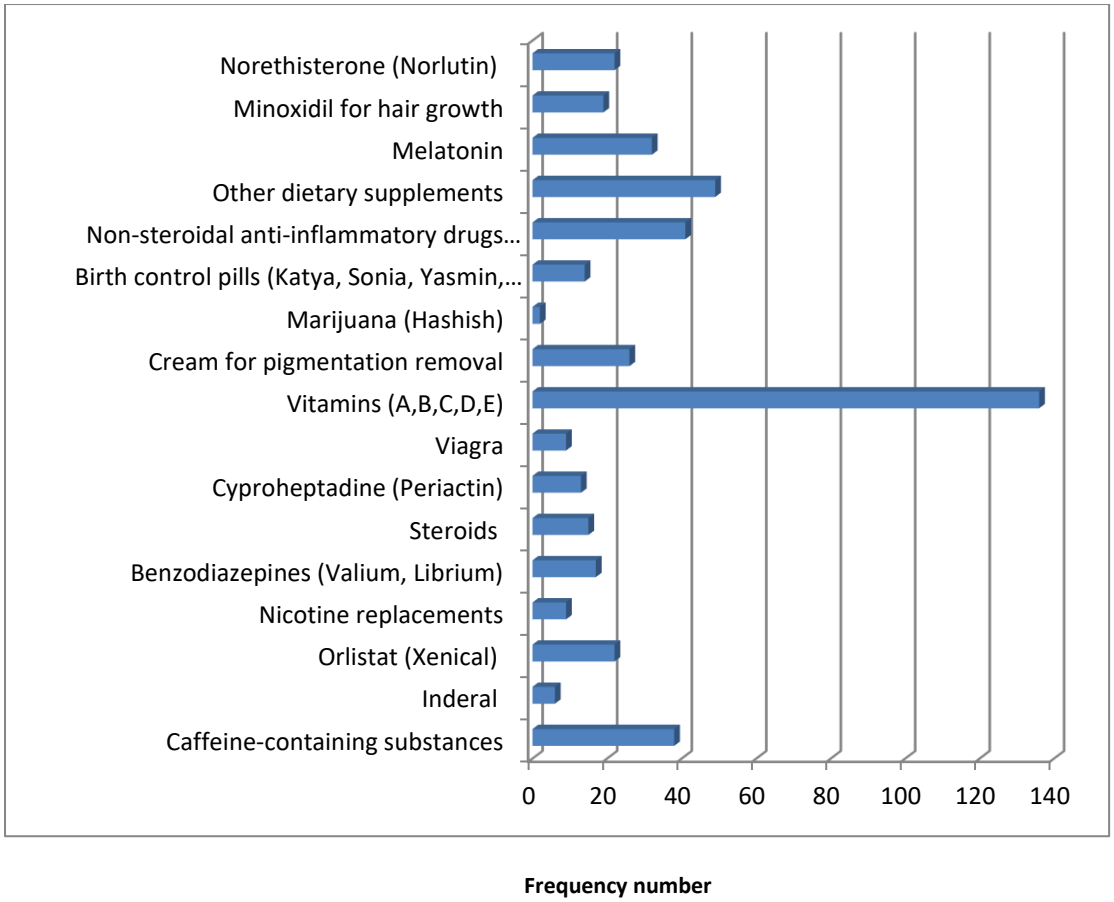

Figure 10: LSMs Used among Participants

Adverse Effects Associated with LSMs

The most common adverse effects experienced by students, outlined in Table 4 and Figure 11, included fatigue and lethargy (14.47%), insomnia (8.72%), and constipation with gastric disturbance (6.60%). Notably, a considerable proportion of students (11.06%) reported experiencing no adverse effects, while others reported a diverse range of effects, indicating the variability in individual responses to LSMs.

Table 4. The most common adverse reactions that are related with the use of LSMs experienced by university students

Side Effects	**Frequency**	**Percent**
Insomnia	41	8.72%
Diarrhea	28	5.96%
Constipation and gastric disturbance	31	6.60%
Fatigue and lethargy	68	14.47%
Dry mouth	12	2.55%
Dizziness and agitation	19	4.04%
Weight gain	25	5.32%
Headache and mood changes	31	6.60%
Nausea and vomiting	10	2.13%
Loss of appetite	14	2.98%
Nothing	52	11.06%
Facial hair growth	13	2.77%
Other	125	26.60%
Total	470	100.00%

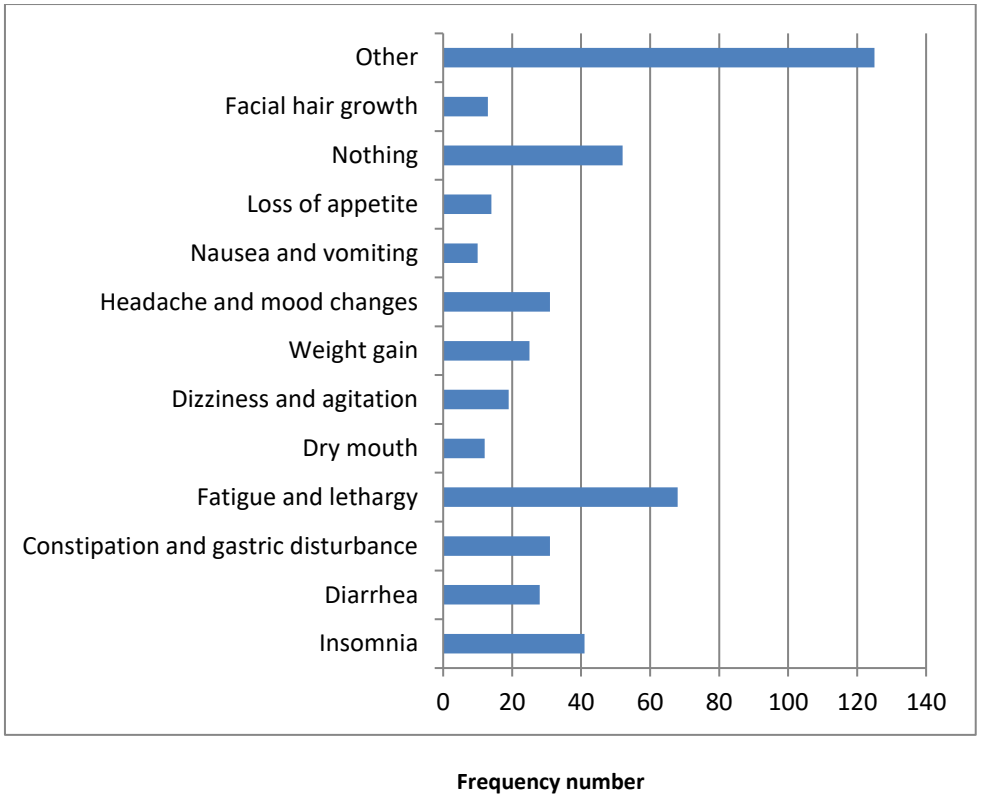

Figure 11: Side Effects Distribution

Perception toward LSMs (Table 5)

Regarding the perception toward utilizing LSMs to enhance quality of life, as presented in Table 5 and Figure 12, 42% of participants agreed that LSMs could enhance their quality of life, while only 5.8% disagreed. A substantial proportion (40.2%) remained neutral, indicating a mixed perception among university students regarding the benefits of LSMs.

Table 5. Students' perceptions regarding utilizing LSMs to enhance their quality of life.

Response type	**Frequency**	**Percent %**
Agree	211	42.00%
Disagree	29	5.80%
Neutral	201	40.20%
Strongly Agree	43	8.60%
Strongly Disagree	16	3.20%
Total	500	100.00%

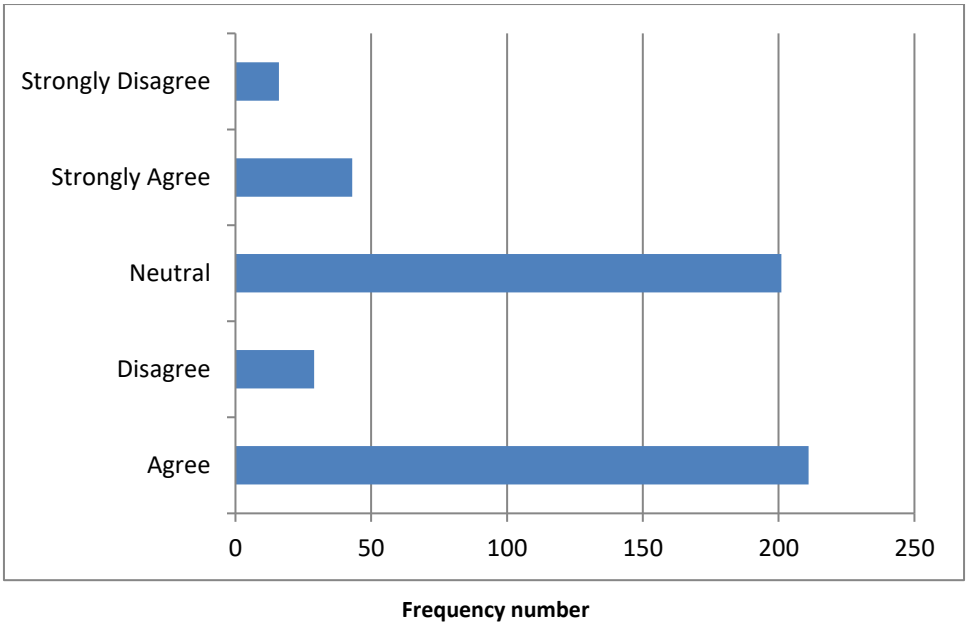

Figure 12: Perception toward utilizing LSMs to enhance quality of life .

Gender and Study Field Differences in Awareness of LSMs

Significant differences were observed in awareness of LSMs based on gender ($p < 0.001$) and study field ($p = 0.001$), as highlighted in Table 6. Females demonstrated higher awareness compared to males (53.6% vs. 46.4%, respectively), and students in medical fields showed greater awareness compared to non-medical students (89.9% vs. 10.1%, respectively).

Table 6. Awareness of LSMs by Gender and Study Field

Gender/ Study Field	**Awareness of LSMs**		**Chi-Square *p* value**
	No	**Yes**	
Gender			
Female	163 (72.8%)	148 (53.6%)	**0.001**
Male	61 (27.2%)	128 (46.4%)	
Total	224 (100.0%)	276 (100.0%)	
Study Medical Field			
No	46 (20.5%)	28 (10.1%)	**0.001**
Yes	178 (79.5%)	248 (89.9%)	
Total	224 (100.0%)	276 (100.0%)	

DISCUSSION

The alteration in lifestyle has led to the development of numerous medications designed to improve quality of life and individual lifestyle factors; consequently, the utilization of these medications without a medical diagnosis or as off-label medication creates public, ethical, and safety problems. [10]. Additionally, they have a significant, harmful socioeconomic and safety impact on society and public health, especially in developing countries. [11]. Moreover, the use of lifestyle drugs may become a privilege of the socio-economically advantaged and raise ethical concerns, as some argue it constitutes a form of 'cheating' or integrity loss [12–14]. Addressing lifestyle-related issues solely with medications can have negative consequences.The current study proved the use of LSMs among university students at three universities. It revealed that about 94% (470 students) were using those medications during their lifetime with the intention ,either improving their immunity . The use of LSDs is associated with myths that people are more in control of their minds, feelings, senses, and physical appearance [15]. Compared to international data, such as a study at an Australian university where 75.5% of students used stimulants for academic enhancement [16,17] , the prevalence in our sample is notably high. Vitamins, dietary supplements[18-21], Depigmenting agent products, NSAIDs, caffeine-containing substances, and melatonin are among the most commonly used LSDs among university students. In our study, vitamins were the most frequently used LSM (28.94%), followed by dietary supplements (10.43%), NSAIDs (8.72%), and caffeine-containing products (8.09%)and steroids to bodybuilding (3.19%) were also notable in usage despite potential health risks. Vitamins are widely available over the counter, and individuals may consume multiple types regularly, sometimes exceeding recommended doses, which can pose health risks [22]. Recently, in a nationwide large-scale survey done by Park et al., it was demonstrated that the intake of vitamin and mineral supplements increased from 23.2% to 33.9% in both males and females, as well as ethnic groups, since they believe in its multiple benefits [23] .Dietary supplements are widely used all over the world, despite the fact that their effectiveness has not been proven and the awareness of their use has globally increased. In the current study, the use of dietary supplements among college students, intended to enhance their diets with additional nutrients, was significantly elevated. It is consistent with the findings of research carried out in a variety of nations, including Japan, the United States of America, and European countries, that around 49 pupils, or 10.43%, have used dietary supplements during their lifetime [24,25]. Despite widespread use, the efficacy of dietary supplements in improving health remains unproven, and misuse can lead to adverse effects such as hepatotoxicity and nephrotoxicity [26, 27]. According to the current study, some students experienced negative side effects from using these LSMs, which may be linked to the use of dietary supplements. These side effects include headaches, mood swings, dizziness or agitation, weight gain, weight loss, facial hair growth, constipation, and/or stomach upset. NSAIDS were another medicine that is being used more frequently (approximately 8.72%) . NSAID use (8.72%) was primarily for dysmenorrhea and pain relief, consistent with prior studies [28]. The present study's finding in caffeine use (8.09%) is similar of previous studies shown at several colleges, such as Egypt, Lebanon, and the United States. ([29,30,31].The psychostimulant, caffeine is the most widely used psychoactive substance worldwide. It exhibits every pharmacological characteristic of traditional psychostimulants, including amphetamine and cocaine. Regular caffeine consumption leads to dependence, which is partially dependent on withdrawal symptoms, according to an epidemiological study on caffeine withdrawal and dependence[32] , Previous studies on university students' perceptions of caffeine consumption included feelings of alertness, attention in task performance, enhanced performance, concentration,

faster locomotor speed, and improved long-term memory. They also reported feeling more energized and able to work for extended periods of time after consuming caffeine. Irritability, elevated heart rate, negative emotions, and insomnia were the perceived consequences of not consuming caffeine [33,34,35].In a similar, insomnia is now recognized as a medical condition. Use of sleep aids such as benzodiazepines and melatonin (6.81%) reflects attempts to manage sleep disturbances, reducing exam anxiety, whereas about 17 (3.62%) students regularly used these drugs. Lack of sleep is a social issue that can significantly affect people on an individual and societal level. According to studies, sleep disorders, sleep deprivation, and cognitive impairment become serious when they affect a person's capacity to manage the demands of daily living [36,37]. The using medications or other substances that alter sleep patterns may have a negative impact on the user. Even in cases when there is no proof that pharmacotherapy is better, it seems that doctors are less likely to look at non-pharmacological treatments when drug therapy is an option. As a result, "lifestyle illnesses," which are essentially diseases, are currently treated with LSDs [38]. The participants' responses also revealed their intake of dermatological and cosmetic items. It was discovered that 5.53% of the students used skin-depigmenting products and other cosmetics. Comparing this study to others conducted in Nigeria, where the prevalence of skin whitening was 40.9%, suggests that Nigerian students may be darker [39].Obesity and overweight can be dealt with food and lifestyle modifications rather than medicines such as Orlistat, which can cause weight loss quickly. It has been reported that, while people taking Orlistat lose slightly more weight in the short term than those who control their dietary intake without drug aids, there is no evidence that drugs are any more effective than diet alone in reducing obesity-related morbidity and mortality [40,41,42]. This is consistent with our data, which demonstrated that more than 4.86% of respondents were using the medicine for weight loss. The stressful environment and workload of medical university students led to the administration of beta-blockers such as propranolol or atenolol, particularly during examinations. Many previous studies have indicated that medical and dental students at King Saud University in Riyadh used beta-blockers inappropriately to relieve anxiety and stress during examinations, with the majority of them being self-prescribed [43]. University students are particularly concerned about the negative consequences of using LSMs. The most commonly reported side symptoms included insomnia (8.72%), weariness and lethargy (14.47%), and constipation with stomach disturbance (6.60%). These findings are consistent with other study showing the potential health hazards linked with LSM use among young adults [44]. The prevalence of adverse effects confirm the importance of raising awareness about the potential risks of LSMs and promoting responsible usage among university students. Furthermore, the study found substantial disparities in LSM awareness by gender and study field. Females showed higher awareness than males (53.6% vs. 46.4%, respectively). This gender disparity in awareness could be attributed to differences in health-seeking behaviors and information-seeking preferences between genders, as a 2009 interview survey found that females had more contact with health professionals in the previous six months than males [45]. Furthermore, students in medical professions were more knowledgeable than non-medical students (89.9% vs. 10.1%, respectively), indicating that educational background influences awareness levels of LSMs.These findings emphasize the importance of targeted educational interventions to improve awareness among all student demographics, particularly among males and non-medical students. Despite the high response rate, the present study has limitations, notably a small sample size for cross-sectional analyses of awareness, attitudes, and usage, which is one of the study's problems. Since this is a cross-sectional study design, it is not possible to track the factors influencing students' replies over time. Another limitation was the

number of universities, i.e., UOW, KUC, and AAC, that could not be extrapolated to other Iraqi universities was another drawback. Consequently, more research is needed from various universities, which may have differing views.

CONCLUSION

University students' awareness of Lifestyle-Related Medications (LSMs) highlights the significance of addressing public health problems related to their use, especially those pertaining to side effects and ethical implications. In this study a significant gender and study field differences in awareness of LSMs highlight the need for targeted educational interventions to improve awareness and promote responsible usage among all student demographics, especially among males and non-medical students. These findings suggest the necessity of implementing awareness campaigns and stricter regulation of non-prescription LSMs to prevent misuse and adverse health outcomes

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CONFLICTS OF INTEREST

The authors did not disclose any conflicts of interest.

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There was no external funding for this study.

ETHICS STATEMENTS

The study was approved by the Institutional Review Board (IRB) of the College of Pharmacy/ Kut University Wasit, Iraq. (acceptance number24 on 10/12/2024)

REFERENCES

1. Rahman SZ, Gupta V, Sukhlecha A, Khunte Y. Lifestyle drugs: concept and impact on society. Indian journal of pharmaceutical sciences. 2010 Jul;72(4):409.
2. Møldrup C. The use of the terms ‘lifestyle medicines’ or ‘lifestyle drugs’. Pharmacy World and Science. 2004 Aug;26:193-6.
3. Mwambete KD, Shemsika T. Prevalence of life style drugs usage and perceived effects among university students in Dar es Salaam. Am J Biomed Res. 2014 May 20;2(2):29-35.
4. Harth W, Seikowski K, Hermes B. Lifestyle Drugs in Old Age–A Mini-Review. Gerontology. 2009 Nov 12;55(1):13-20.
5. Jernigan D, Noel J, Landon J, Thornton N, Lobstein T. Alcohol marketing and youth alcohol consumption: a systematic review of longitudinal studies 2008. Addiction. 2017 Jan;112:7-20.
6. Moynihan R, CG P, Heath I, Henry D. Selling sickness: the pharmaceutical industry and disease mongeringCommentary: Medicalisation of risk factors. Bmj. 2002 Apr 13;324(7342):886-91.
7. Oliveira LG, Alberghini DG, Santos BD, Andrade AG. Polydrug use among college students in Brazil: a nationwide survey. Brazilian Journal of Psychiatry. 2013 Jul;35:221-30.
8. d'Angelo LS, Savulich G, Sahakian BJ. Lifestyle use of drugs by healthy people for enhancing cognition, creativity, motivation and pleasure. British Journal of Pharmacology. 2017 Oct;174(19):3257-67.
9. Marouf BH, Saeed AG, Othman Z, Karim S, Gharib S, Ahmed R. Awareness and Frequency of using Lifestyle Medications among University Students in Kurdistan Region-Iraq. Iraqi Journal of Pharmaceutical Sciences (P-ISSN 1683-3597 E-ISSN 2521-3512). 2023 Jun 20;32(1):185-93.

10. Schelle KJ, Olthof BM, Reintjes W, Bundt C, Gusman-Vermeer J, Van Mil AC. A survey of substance use for cognitive enhancement by university students in the Netherlands. Frontiers in systems neuroscience. 2015 Feb 17;9:10.
11. Mounika I, Ramu B. Lifestyle drugs: concept and impact on society. Journal of Human Virology & Retrovirology. 2018;6:46-9.
12. Flower RJ. Lifestyle and non-medical uses of drugs. Rang and Dale's Pharmacology. 6th ed. London: Churchill Livingstone. 2007:765-9.
13. Outram SM. The use of methylphenidate among students: the future of enhancement?. Journal of Medical Ethics. 2010 Apr 1;36(4):198-202.
14. Powell R, Kahane G, Savulescu J. Evolution, genetic engineering, and human enhancement. Philosophy & Technology. 2012 Dec;25:439-58.
15. Kobayashi E, Sato Y, Umegaki K, Chiba T. The prevalence of dietary supplement use among college students: A nationwide survey in Japan. Nutrients. 2017 Nov 15;9(11):1250
16. Trilk J, Nelson L, Briggs A, Muscato D. Including lifestyle medicine in medical education: rationale for American College of Preventive Medicine/American Medical Association resolution 959. American Journal of Preventive Medicine. 2019 May 1;56(5):e169-75
17. Mazanov J, Dunn M, Connor J, Fielding ML. Substance use to enhance academic performance among Australian university students. Performance Enhancement & Health. 2013 Sep 1;2(3):110-8.
18. Conner M, Kirk SF, Cade JE, Barrett JH. Why do women use dietary supplements? The use of the theory of planned behaviour to explore beliefs about their use. Soc Sci Med 2001;52:621–33. 3.
19. Frank E, Bendich A, Denniston M. Use of vitamin-mineral supplements by female physicians in the United States. Am J Clin Nutr 2000 Oct;72:969–75.
20. Fletcher RH, Fairfield KM. Vitamins for chronic disease prevention in adults: clinical applications. JAMA 2002;287:3127–9.
21. Asplund K. Antioxidant vitamins in the prevention of cardiovascular disease: a systematic review. J Intern Med 2002;251:372–92
22. Briançon S, Boini S, Bertrais S, Guillemin F, Galan P, Hercberg S. Long-term antioxidant supplementation has no effect on health-related quality of life. International journal of epidemiology. 2011 Dec 1;40(6):1605-16.
23. Park SY, Murphy SP, Martin CL, Kolonel LN. Nutrient intake from multivitamin/mineral supplements is similar among users from five ethnic groups: the Multiethnic Cohort Study. Journal of the American Dietetic Association. 2008 Mar 1;108(3):529-33.
24. Garcia-Alvarez A, Egan B, De Klein S, Dima L, Maggi FM, Isoniemi M, Ribas-Barba L, Raats MM, Meissner EM, Badea M, Bruno F. Usage of plant food supplements across six European countries: findings from the PlantLIBRA consumer survey. PloS one. 2014 Mar 18;9(3):e92265.
25. Wiltgren AR, Booth AO, Kaur G, Cicerale S, Lacy KE, Thorpe MG, Keast RS, Riddell LJ. Micronutrient supplement use and diet quality in university students. Nutrients. 2015 Feb 5;7(2):1094-107.
26. García-Cortés M, Robles-Díaz M, Ortega-Alonso A, Medina-Caliz I, Andrade RJ. Hepatotoxicity by dietary supplements: a tabular listing and clinical characteristics. International Journal of Molecular Sciences. 2016 Apr 9;17(4):537.
27. Grubbs V, Plantinga LC, Tuot DS, Hedgeman E, Saran R, Saydah S, Rolka D, Powe NR. Americans' use of dietary supplements that are potentially harmful in CKD. American journal of kidney diseases. 2013 May 1;61(5):739-47.
28. Arnold JD, Iber FL, Burt RA, Gruber Jr CM. Comparison of fenoprofen calcium, ibuprofen and placebo in primary dysmenorrhea. Journal of medicine. 1983 Jan 1;14(5-6):337-50.
29. El-Nimr NA, Bassiouny SH, Tayel DI. Pattern of caffeine consumption among university students. Journal of High Institute of Public Health. 2019 Dec 1;49(3):154-61.
30. Ghozayel M, Ghaddar A, Farhat G, Nasreddine L, Kara J, Jomaa L. Energy drinks consumption and perceptions among University Students in Beirut, Lebanon: A mixed methods approach. PloS one. 2020 Apr 30;15(4):e0232199.

31. Mahoney CR, Giles GE, Marriott BP, Judelson DA, Glickman EL, Geiselman PJ, Lieberman HR. Intake of caffeine from all sources and reasons for use by college students. Clinical nutrition. 2019 Apr 1;38(2):668-75.
32. Budney AJ, Brown PC, Griffiths RR, Hughes JR, Juliano LM. Caffeine withdrawal and dependence: a convenience survey among addiction professionals. Journal of caffeine research. 2013 Jun 1;3(2):67-71.
33. Christopher G, Sutherland D, Smith A. Effects of caffeine in non-withdrawn volunteers. Human Psychopharmacology: Clinical and Experimental. 2005 Jan;20(1):47-53.
34. Ferré S. Mechanisms of the psychostimulant effects of caffeine: implications for substance use disorders. Psychopharmacology. 2016 May;233:1963-79.
35. Zahra R, Maqsood U, Latif MZ, Athar H, Shaikh GM, Hassan SB. Caffeine consumption & perception of its effects amongst university students. In Proceedings .2020 34(4): 46-51 .
36. .Coveney CM. Awakening expectations: Exploring social and ethical issues surrounding the medical and non-medical uses of cognition enhancing drugs in the UK (Doctoral dissertation, University of Nottingham.(
37. Coveney CM, Nerlich B, Martin P. Modafinil in the media: metaphors, medicalisation and the body. Social Science & Medicine. 2009 Feb 1;68(3):487-95.
38. Stein MD, Kanabar M, Anderson BJ, Lembke A, Bailey GL. Reasons for benzodiazepine use among persons seeking opioid detoxification. Journal of substance abuse treatment. 2016 Sep 1;68:57-61.
39. Egbi OG, Kasia B. Prevalence, determinants and perception of use of skin lightening products among female medical undergraduates in Nigeria. Skin Health and Disease. 2021 Sep;1(3):e46.
40. Henness S, Perry CM. Orlistat: a review of its use in the management of obesity. Drugs. 2006 Aug;66:1625-56.
41. Ross R, Freeman JA, Janssen I. Exercise alone is an effective strategy for reducing obesity and related comorbidities. Exercise and sport sciences reviews. 2000 Oct 1;28(4):165-70.
42. Lexchin J. Lifestyle drugs: issues for debate. Cmaj. 2001 May 15;164(10):1449-51.
43. Abukhalaf AA, Alomar AA, Alsalame NM, Sumaya OY, Alessa OM, Alasbali MM, Alaska YA. Inappropriate use of beta-blockers among medical and dental students at King Saud University, Riyadh. Journal of Family Medicine and Primary Care. 2020 Aug 1;9(8):4391-5.
44. Chiba T, Kobayashi E, Okura T, Sekimoto M, Mizuno H, Saito M, Umegaki K. An educational intervention improved knowledge of dietary supplements in college students. BMC Public Health. 2020 Dec;20:1-2.
45. Chaplin TM, Aldao A. Gender differences in emotion expression in children: a meta-analytic review. Psychological bulletin. 2013 Jul;139(4):735.

انتشار استخدام أدوية نمط الحياة ومستوى الوعي بها بين طلبة الجامعات في مدينة الكوت – العراق معدل تكرار استخدام الأدوية المتعلقة بنمط الحياة ومستوى الوعي بها بين طلاب الجامعات في مدينة الكوت، العراق.

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الخلاصة

الخلفية:
تُستخدم أدوية نمط الحياة (Lifestyle Medicines - LSMs) لمساعدة الأفراد على تعديل أنماط حياتهم، وغالبًا ما يتم استخدامها لأغراض غير طبية أو لا ترتبط مباشرة بالصحة.
الأهداف:
هدفت هذه الدراسة إلى تقييم مدى انتشار استخدام أدوية نمط الحياة بين طلبة الجامعات، وتحديد دوافع استخدامها، وأنواعها، وآثارها الجانبية، بهدف توفير بيانات علمية مفيدة لتفسير الظاهرة ووضع استراتيجيات وقائية مناسبة.
المنهجية:
أُجريت دراسة مقطعية وصفية بين طلبة الجامعات في محافظة واسط – العراق، باستخدام استبيان ذاتي التعبئة تم توزيعه عبر المنصات الإلكترونية. تضمن الاستبيان أربعة محاور شملت المعلومات الديموغرافية، ومستوى المعرفة والوعي، وتمت صياغته بصيغة مُقننة ومعتمدة.
النتائج:
تمت استبيان (500) طالبًا وطالبة تتراوح أعمارهم بين (18–25) سنة وما فوق. بلغ عدد الطلبة الذين يستخدمون أدوية نمط الحياة (470) بنسبة (94%). كانت أكثر الأدوية شيوعًا: الفيتامينات (136، بنسبة 28.94%)، تلتها الادوية المضادة للالتهاب غير الستيرويدية (41، بنسبة 8.72%)، ثم المواد المحتوية على الكافيين (38، بنسبة 8.09%). أما أبرز الآثار الجانبية المرتبطة باستخدام هذه الأدوية فكانت التعب والخمول (68، بنسبة 14.47%)، والأرق (41، بنسبة 8.72%)
الاستنتاج:
أظهر النتائج ان الطلبة لهم وعيًا متوسط تجاه أدوية نمط الحياة، وكانت النصائح الطبية هي المصدر الأساسي للمعلومات. وُجد انتشار مرتفع لاستخدام هذه الأدوية، خاصة الفيتامينات، مع تسجيل مجموعة من الآثار الجانبية، أبرزها التعب والخمول. كما بينت النتائج وجود فروق واضحة في مستوى الوعي تبعًا للجنس والتخصص الدراسي، مما يؤكد الحاجة إلى تنفيذ برامج توعوية وتدخلات تثقيفية موجهة.
الكلمات المفتاحية: استراتيجيات التدخل، أدوية نمط الحياة، طلبة الجامعات، الوعي الصحي،