

Healthy Lifestyle of the Present-Day Consumers: A Review

Zhang Yi

School of Business, Xinxiang University, Xinxiang, Henan, China

land44@163.com

Received: 12th November 2022

Revised:14th November 2022

Accepted: 14th November 2022

Published: 20 December 2022

Abstract: Living a happy and healthy life has always been people's top priority. Healthy lifestyle (HL) is essential for improving the quality of lives and improving health. Trends in global consumption show that consumers are adopting healthier, more balanced lifestyles. Healthy lifestyles are deeply integrated with people's daily life and are reflected in consumers' behaviors. Along with physical and mental health, healthy consumption lifestyles and responsible and sustainable lifestyles are equally important as time changes and lifestyles change. Although the importance of a healthy lifestyle is generally recognized, discussions on this topic are largely fragmented, superficial, and incomplete. This study reviewed the literature related to healthy lifestyles in the last five years and highlights the development of the concept, the main aspects included, the theory used, and the predictors and outcomes of healthy lifestyle that are discussed in the previous studies.

Keywords: Healthy lifestyle, Physical and mental health, Healthy consumption, Responsible lifestyle, Sustainable lifestyle

Paper type: Research paper

1. Introduction

Lifestyle is a unique style of living shaped by individuals' activities, interests, and opinions (Plummer, 1974), which is most recognizable in people's everyday choices (Bourdieu, 1984). According to the World Health Organization, leading a healthy lifestyle can reduce preventable illnesses and improve quality of life. The study of how to pursue the good life, or to be more precise, the pursuit of well-being of life, is becoming increasingly popular (Sfeir et al., 2022). Global consumption trends in 2021 show that consumers' lifestyles are developing towards a more balanced life (Gadeikienė et al., 2021). Healthy lifestyle (HL) is strongly correlated with the maintenance of good health and the prevention of disease (Kim & Kang, 2019), which was reckon as the way to be correlated with greater life satisfaction and generate the feeling of the well-being (Martin-Maria et al., 2020).

Healthy lifestyle generally suggests consideration of well-being oriented and preventing health problems (Savelli et al., 2020), reducing the risk of preventable health problems and improve one's quality of life (Kim & Kang, 2019). Nearly 60% of the factors related to individual health and quality of life are related to lifestyle (World Health Organization, 2004). Indeed, the outbreak of coronavirus disease (COVID-19) has posed a serious threat to people's lives and physical and mental health worldwide, causing people to have mental disorders such as fear, depression, and anxiety, and seriously affecting people's health (Ahorsu et al., 2020; Sfeir et al., 2022). Thus, health lifestyle are obviously more crucial in promoting the quality of

human life and their healthy living (Biswas, 2020).

Different authors have examined healthy lifestyle from different aspects and in different industries. The consumption activities of all aspects of life guarantee the quality of life and contribute to all production activities. However, with the growth of the population and increasing daily consumption, the earth's valuable resources are shrinking at an alarming rate (Quoquab & Mohammad, 2020). With the primary objective of personal health preservation, people also pay attention to how to realize the improvement of the quality of life and healthy living by protecting the environment and refraining from environmental damage (Biswas, 2020), which gradually becomes a significant domain to study healthy lifestyle. Thus, the focus of healthy lifestyle researches are changing, from the domain of physical health to the environmental-related area, and now to be continuously carried on in the background of social public health issues.

Though scholars, policymakers and practitioners around the world generally recognize the necessity and importance of a healthy lifestyle for the development of human society, discussions on this topic are largely fragmented and many aspects remain unexplored. Therefore, this study attempts to answer the following questions:

- (1) What are the concepts of healthy lifestyle?
- (2) What are the aspects of healthy lifestyle from different perspective?
- (3) What theories are being considered in relation to healthy lifestyle?
- (4) What are the predict factors of healthy lifestyle?
- (5) What are the mediators and moderators of healthy lifestyle?
- (6) What are the outcomes of healthy lifestyle?

The review begins with a discussion of the knowledge gaps regarding healthy lifestyle (HL), followed by the concepts of HL, theories used, and factors influencing and being influenced from different research angles and backgrounds. We conclude by discussing future research directions, implications, and conclusions.

2. Information Gathering and Scope of the Literature Review

In order to conduct a literature review of relevance, Google Scholar was primarily used due to its comprehensiveness and effectiveness, as well as its ability to retrieve articles published decades ago. Besides, the Emerald database was selected for its wide containing of documents in the field of business and social science research (Quoquab & Mohammad, 2020). We thus reviewed selective relevant articles from 2018 to 2022 with a view to capturing the research directions of healthy lifestyle under the latest conditions and backgrounds. Additionally, only English-language articles were considered. The study excluded books, book chapters, proceedings, and working papers from further review. we consider articles focused on healthy lifestyle with different research methods under different research conditions, including discussions of predictors of healthy lifestyle, the outcomes of healthy lifestyle, the dimensions of healthy lifestyle, and the use of healthy lifestyle in the segmentation of consumers and markets.

The search results yielded 43 scholarly articles pertaining to the lifestyle topic. Of the 43 articles, 15 were excluded because they were published not during the period between 2018-2022. In this study, 28 abstracts were reviewed to determine their relevance and suitability for inclusion in the analysis. In this stage, 12 articles were excluded for the following reasons: they were slips of book chapters, low quality without index collection, not related to the health aspect of lifestyle, and review articles on the early period articles. For further summarizing and synthesizing, a total of 16 articles were included, of which only one do not have the Web of Science Core Collection.

Research questions, purpose, and research methods posed in the introduction are the focus points when

reviewing each article. It was found that the research papers were widely from different countries including Lebanon, Pakistan, Lithuania, Middle Eastern and North Africa (MENA) region, Malaysia, India, the UK, China, Czech, Spanish Republic, Korea, USA, Southwestern United States, and South Florida. Fourteen of these articles were published latest 5 years (2018–2022) and published in sixteen different journals that were downloaded from Emerald and Google Scholar, and all had been searched for the Index source, which had been listed in the (Table 1). Two articles were not during this period. In that the two articles had important research findings, we incorporated them in the reviewing list. Table 1 summarizes the literature search results.

Table 1. The source and Index of the articles reviewed

	able 1. The source and Index of the articles reviewed
Author and Year	Journal and Index
Sfeir et al. (2022)	● Current Psychology (Social Sciences Citation Index)
Bukhari et al. (2022)	 American Academic Scientific Research Journal for Engineering, Technology, and Sciences (No Index)
Gadeikienė et al. (2021)	 Sustainability (Science Citation Index Expanded/Social Sciences Citation Index)
Kilani et al. (2021)	● PloS One (Science Citation Index Expanded)
Tan et al. (2021)	 British Food Journal (Science Citation Index Expanded)
Biswas, (2020)	 Environmental Science and Pollution Research (Science Citation Index Expanded)
Chen et al. (2020)	 Journal of Psychosomatic Research (Science Citation Index Expanded/Social Sciences Citation Index)
Savelli et al. (2020)	● Journal of Consumer Marketing (Emerging Sources Citation Index)
Matharu et al. (2020)	 Management of Environmental Quality: An International Journal. (Emerging Sources Citation Index)
Sung & Hong (2019)	 Journal of Retailing and Consumer Services (Social Sciences Citation Index)
Picha & Navratil (2019)	● Journal of Cleaner Production (Science Citation Index Expanded)
Kim & Kang (2019)	 Physical Therapy Rehabilitation Science (Science Citation Index Expanded)
Biggs et al. (2019)	• Eating behaviors (Social Sciences Citation Index)
McGovern et al. (2018)	 Journal of Pediatric Health Care (Science Citation Index Expanded/Social Sciences Citation Index)
Choi & Zhao (2014)	British Food Journal (Science Citation Index Expanded)
Gil et al. (2000)	• The International Food and Agribusiness Management Review (Science Citation Index Expanded)

3. Definition and Different Aspects of Healthy Lifestyle Concept

As lifestyle is defined by researchers according to their research fields, we talk about it from the assumptions about how a person lives or wants to live (Jensen, 2007). Lifestyle, in other words, ways of living, reflect people's self-identity, values, preferences, perceptions, motivations, habits, and beliefs (Gadeikien et al., 2021).

Table 2 provides a summary of the definitions in the past selective literature according to the published year from 2022 to 2018, with two exceptions of 2014 and 2000. Based on the definitions outlined in Table 2, it is apparent that different authors have defined healthy lifestyle in different ways. To summarize the definitions from different views on different aspects of healthy lifestyle in the selective literature, there are four angles, which are health perspective, health sustainability perspective, and consumption perspective respectively. Definitions and aspects from a health perspective focused on health area-related aspect practices, such as the study of Bukhari et al. (2022), Savelli et al. (2020), Zhou and Krishnan, (2019), and Biggs et al., (2019).Definitions and aspects from a health sustainability perspective focused on the lifestyle of health and sustainability, such as the study of Gadeikienė et al. (2021), Biswas, (2020), and Sung and Hong (2019). Definitions and aspects from a consumption perspective focused on healthy lifestyle segmented consumption market and consumer behavior, such as the study of Gil et al. (2000), Picha and Navratil (2019), Matharu et al. (2020) and Tan et al. (2021). Besides, healthy lifestyle were conceptualized specifically during the COVID-19 pandemic to improve quality of life, such as the study of Kilani et al. (2021) and Chen et al. (2020).

Table 2. Definitions of healthy lifestyle (HL)

Author and Year	Definitions
Sfeir et al. (2022)	• Healthy lifestyle includes seven healthy practices, including physical activity, not smoking, consuming alcohol moderately, maintaining an average weight, sleeping between 7-8 hours, having breakfast, and not eating between meals.
Bukhari et al. (2022)	• Health lifestyle means obtaining a good and healthy nutrition from good eating habits, a balanced diet and physical activity (PA).
Gadeikienė et al. (2021)	• Healthy lifestyle is the health area-related aspect of LOHAS (lifestyles of health and sustainability), which highlights dimensions of physical health, mental health, emotional health, social health, intellectual health, and spiritual health.
Kilani et al. (2021)	• Adequate physical activities, good diet quality, and good sleep are the important facets of healthy lifestyle behaviors, especially during the COVID-19 pandemic.
Tan et al. (2021)	• Consumers with a healthy lifestyle tend to do something beneficial for the health, such as participating in sporting activities, consuming natural or organic food, and having a more balanced diet.
Biswas, (2020)	• Healthy lifestyle is one of the dimensions of lifestyle practices, referring to the endeavor undertaken by an individual to enhance the quality of life and healthy living by protecting the environment and refraining from environmental damage with the primary objective of personal health preservation.
Chen et al. (2020)	• Healthy lifestyle were conceptualized as living rhythms in the context of COVID-19, including Time spent on focusing on COVID-19 information; Sleeping rhythms; Diet habits; Exercise habits.
Savelli et al. (2020)	• Healthy lifestyle refers to the impact on healthy food choices and habits,

	as well as for its fore in preventing enforme diseases.
Matharu et al. (2020)	• Lifestyle of health and sustainability (LOHAS) describes both products
	and consumers with healthy and environmentally friendly characteristics.
Sung & Hong (2019)	• Lifestyle of health and sustainability (LOHAS) value quality of life by
	caring about health and the sustainability of social and environmental
	issues.
D' 1 0 31 (2010)	
Picha & Navratil (2019)	• Lifestyle of health and sustainability (LOHAS) was defined as a market
	segment that was focused on health and fitness, the environment, personal
	development, sustainable living and social justice.
Kim & Kang (2019)	• Healthy lifestyle are defined as a person or group's ways of living, such
ram & rang (2017)	
	as specific behaviors or habits, which can reduce the risk of preventable
	health problems and improve one's quality of life.
Biggs et al. (2019)	• Healthy lifestyle relate to adolescent weight-related health behaviors,
	such as healthy eating and physical activity.
McGovern et al. (2018)	• Healthy Lifestyle behaviors are reflective of physical activity, diet, and
1,10 G0 (0111 et al. (2010)	mental health.
C1 : 0 71 (2014)	
Choi & Zhao (2014)	• Healthy habitual behaviors brought by needs and motivation in relation to
	health, which is a complex system of health conscious behaviors such as
	exercise, psychic health, hygiene, avoidance of harmful recreational drugs,
	and conscious dietary choices.
Cil et al. (2000)	
Gil et al. (2000)	• Healthy lifestyle were people's living behaviors on the aspects of natural
	food consumption, life equilibrium, health care.

as well as for its role in preventing chronic diseases.

There are different levels at which lifestyle can be studied: globally, nationally, sub-culturally, and individually (Jensen, 2007), of which the individual level is the significant domain of researches. A health-conscious individual tends and is motivated to live a healthy lifestyle, with the adoption of health-promoting behaviors (Zhou & Krishnan, 2019).

A. Focus on Individual

Savelli et al. (2020) focused on preventing health problems and promoting the well-being of the healthy lifestyle concept, which were also known as healthy practices, healthy lifestyle habits, and healthy lifestyle behaviors. Some researchers had conceptualized healthy lifestyle behaviors specifically, such as physical activity (PA), smoking, alcohol drinking, weight, sleeping, having breakfast, and eating between meals were factors initially proposed to define HL behaviors (Belloc & Breslow, 1972). The healthy lifestyle of adolescents in the USA were studied based on the definition of weight-related health behaviors aspects, such as healthy eating and physical activity (Biggs et al., 2019). In order to prevent chronic diseases, Savelli et al. (2020) defined and studied healthy lifestyle through healthy food choices and habits. Bukhari et al. (2022) proposed the importance of nutrition in healthy lifestyle and defined HL on the aspects of good eating habits, a balanced diet, and physical activity (PA).

B. Focus on Consumer Market Segment

As an increasing number of consumers become interested in social and environmental issues related to what they eat and what they wear (Sung & Hong, 2019). A lifestyle is a long-term determinant of consumer behavior (Biswas, 2020). What he/she consumes, and how they approach health-related issues reflected in their purchasing decision can also represent their lifestyle (Jensen, 2007). For the consumption market segment view, Gil et al. (2000) had summarized three factors, namely, natural food consumption, life equilibrium and health care as the most important healthy lifestyle characters from people's daily life to segment the organic food consumer market in Spain. Picha and Navratil (2019) segmented the consumer market in Czech through aspects of LOHAS, which were health and fitness, the environment, personal development, sustainable living, and social justice.

C. Focus on Social Impact

With an increasing understanding of the relationship between individual health and environmental issues, people tend to lead responsible lifestyle behaviors to preserve the environmental downturns (Ramdas & Mohamed, 2014). Although the initial consumerism had included several aspects that were not sustainable in the long run (Quoquab & Mohammad, 2020), researchers proposed that the primary objective of personal health preservation, the improvement of the quality of life and healthy living can be realized by protecting the environment and refraining from environmental damage (Biswas, 2020). Thus, a new trend describing such conscious lifestyle choices was introduced: the concept of Lifestyle of health and sustainability (LOHAS), in which, health and sustainability are valued as factors that contribute to the quality of life (Sung & Hong, 2019).

Besides, according to Biswas (2020), the concept of health is not only a part of an individual level concept, but also part of a larger concept of well-being. It encompasses not just physical fitness, but also hedonic and cognitive dimensions, emphasizing both personal and social resources. In the social context of the COVID-19 pandemic, Kilani et al. (2021) proposed adequate physical activities, good diet quality, and good sleep are the important facets of HL study. Chen et al. (2020) conceptualized HL as living rhythms, including time spent on focusing on COVID-19 information, sleeping rhythms, diet habits, exercise habits.

4. Theories Used

In the selected literature, six of ten articles did not consider any particular theory while studying healthy lifestyle behaviors. However, the other ten studies provided a theoretical basis or specific theoretical frame. From our review, the theories listed have been matched with the information of the author and year in the order of their published year beginning with 2022. KAP (knowledge, attitudes, and practices) model (Bukhari, et al., 2022), KAB (Knowledge, Attitude and Behavior) model and lifestyle theory (Biswas, 2020), Stress theory (Chen et al., 2020), Theory of planned behavior (TPB) (Matharu et al., 2020), Theory of Reasoned Action (TRA) (Sung & Hong, 2019), Social Cognitive Theory (SCT) (Biggs et al., 2019), Cognitive theory (McGovern et al., 2018), The social-ecological framework (Choi & Zhao, 2014), The utility-maximizing theory (Gil et al., 2000). To be specific, for example, Social cognitive theory (SCT) posits that social context can facilitate or hinder the development of self-efficacy and behavior change. As Biggs et al. (2019) argued, supportive relationships are essential for young people to take steps toward healthy behaviors. Lifestyle theory explains the complex behavioural patterns that aligned with different lifestyle orientations such as the environment-oriented or health-oriented lifestyle practices (Biswas, 2020). Table 3 lists the theories have been used in the selected literature.

T 11 3	•	• 41	1 4 1	1.4
Inhia	I haariac	in tha	CALACTAC	litaratiira
Iabics	I IICUI ICS	in the	SUICULU	literature

Author and Year	Theory
Sfeir et al. (2022)	● No theory
Bukhari, et al. (2022)	 KAP (knowledge, attitudes and practices) model
Gadeikienė et al. (2021)	● No theory
Kilani et al. (2021)	● No theory
Tan et al. (2021)	● No theory
Biswas, (2020)	 KAB (Knowledge Attitude and Behavior) model
Chen et al. (2020)	• Stress theory

Savelli et al. (2020)	● No theory
Matharu et al. (2020)	Theory of planned behavior (TPB)
Sung & Hong (2019)	● Theory of Reasoned Action (TRA)
Picha & Navratil (2019)	● No theory
Kim & Kang (2019)	● No theory
Biggs et al. (2019)	Social Cognitive Theory (SCT)
McGovern et al. (2018)	● Cognitive theory
Choi & Zhao (2014)	 ◆ The social-ecological framework
Gil et al. (2000)	● The Utility-maximizing theory

5. Drivers of Healthy Lifestyle

Healthy lifestyle (HL) is influenced by numerous variables and according to the selected literature, some predictors have been summarized below. Factors and construct dimensions of Healthy lifestyle Scales were summarized as the first type, while the analysis between the variables were summarized as the second type.

For the first type, in the study of Nine factors in the Healthy Lifestyle Screening Tool (HLST), namely, sunlight, water, air, rest, exercise, nutrition, temperance, trust, and general physical condition were used to test the level of a healthy lifestyle, with higher scores indicating a healthier lifestyle (Kim & Kang, 2019; Sfeir et al., 2022). Three dimensions of healthy lifestyle were nutritional knowledge, healthy eating attitude aspects of nutrition, and daily life practices on nutrition (Bukhari et al., 2022). According to Gadeikienė et al. (2021), a multidimensional healthy lifestyle construct was developed with the following eight dimensions that can be used to measure the healthy lifestyle of consumers, which are Spiritual Health (SPIRIT), Emotional and social relationships health (EMO SOC), Intellectual health (INTELLECT), Mental health(MENTAL), Physical health (physical activity, nutrition) (PHYSICAL), Avoidance of substances harmful to health (AVOID), External social relationships' health (EXT SOC), Health prevention (PREVENT). Meals' regularity, healthy food consumption, and eat home are three dimensions of healthy lifestyle construct based on the household level study in the UK (Savelli et al., 2020). Dietary schedule, food pyramid, exercise, and dietary supplements were identified as four areas of Lifestyle-related health behaviors (Choi & Zhao, 2014). Three dimensions, natural food consumption, life equilibrium, and health care were summarized from Spanish people's daily life to measure the level of health lifestyle (Gile et al., 2000).

For the second type of research, by using the Quasi-experimental study, Nutrition education was tested to have a positive impact on the healthy lifestyle of female adolescents in Pakistan (Bukhari et al., 2022). Health consciousness has a significant positive effect on healthy lifestyle in the framework to predict the attitudes toward eating "green" among people 18 years and above in Malaysia (Tan et al., 2021). Environment literacy has a significant influence on attitude toward environmental conservation and ultimately on the decision to adopt a sustainable and healthy lifestyle in the context of India (Biswas, 2020). The family healthy eating support, family physical activity support, family hypocritical control, peer health eating support, peer physical activity support, peer undermining professional healthy eating support, professional physical activity support, and professional general support can affect adolescents' two dimensions behaviors of healthy lifestyle, namely, healthy eating and physical activity (Biggs et al., 2019). Positive thoughts about engaging in healthy lifestyle behaviors encouraged more healthy lifestyle behaviors (McGovern et al., 2018).

6. Mediators and Moderators of Healthy lifestyle

Only two of the selected literature have considered any mediator or moderator in relation to healthy lifestyle. According to Biswas, (2020), environmental attitude and sustainable lifestyle practice mediate the relationship between environmental literacy and healthy lifestyle practices. Three dimensions of feeling (anxiety, depression, and anger) mediate the relationship between the three dimensions of thinking (perceived difficulty, healthy lifestyle belief, self-concept) and healthy lifestyle behavior in the study in the Southwestern United States (McGovern et al., 2018). Besides, there is no moderator in all selected literature.

7. Outcomes of Healthy lifestyle

Healthy lifestyle (HL) also had been examined as a predictor in the study of health perspective, food consumption perspective, and health and sustainability perspective, and I summarize them according to these three aspects separately.

A. Health Perspective

Gadeikienė et al. (2021) distinguished healthy lifestyle equal as to health areas-related LOHAS dimensions, including physical, mental, emotional, social, intellectual, and spiritual health. From the consumers' view, people with healthy lifestyle tended to do something beneficial for their health, such as participating in sporting activities, consuming natural or organic food, and having a more balanced diet (Tan et al., 2021). A higher level of General Well-being (GWB) was associated with healthy lifestyle in the context of the COVID-19 pandemic (Sfeir et al., 2022). Healthy lifestyle (PA, dietary quality, and good sleeping) positively affected mental well-being in the study in the Middle Eastern and North Africa (MENA) region (Kilani et al., 2021). Four dimensions of Living rhythms (time spent on focusing on COVID-19 information, sleeping rhythms, diet habits, and exercise habits) significantly affect depressive symptoms among college students in Guangdong, China (Chen et al., 2020).

B. Health and Sustainability Perspective

Biswas, (2020) identified two lifestyle practices, which are healthy lifestyle practice and sustainable lifestyle practice, and defined healthy lifestyle with the primary objective of personal health preservation, which meant that people enhanced their quality of life and healthy living by protecting the environment and refraining from environmental damage. LOHAS tendency positively affects attitudes while attitudes, subjective norms, and perceived behavioral control predict sustainable consumption behavior in the context of sustainable consumption in sharing economy in India (Matharu et al., 2020). LOHAS positively influenced perceived value, while perceived value significantly increased attitude toward slow fashion, and attitude significantly increased purchase intention in the study of Gen-Y males (Sung & Hong, 2019). Healthy lifestyle (HL) correlated strongly with the preference for products, interest in socially responsible consumption, and preference for domestic and local products (Picha & Navratil, 2019). Both products and consumers with healthy and environmentally friendly characteristics are focusing contents in the study of healthy and sustainable lifestyle (Matharu et al., 2020), such as people's purchase behaviors towards environmental beneficial products and resource conservation behaviors, aiming at keeping a healthy and sustainable living.

C. Food Consumption Perspective

Healthy lifestyle have significant positive effects on attitudes toward eating green, meanwhile healthy lifestyle mediated the relationship between health consciousness and attitude toward eating "green" in the study carried out in Malaysia (Tan et al., 2021). Three dimensions of healthy lifestyle (Meals regularity and Healthy food consumption) enhanced food waste reduction (Savelli et al., 2020). Four dimensions of Lifestyle-related health behaviors (dietary schedule, food pyramid, exercise, dietary supplements) were significant predictors of consumers' intention to order healthy food at a restaurant (Choi & Zhao, 2014). Healthy lifestyle positively affected the buying of organic food and the willingness to pay a high premium (Gile et al., 2000). Table 4 is the summary of research on HL.

Table 4. Summary of research on HL (arranged by year)

Author and Year	Country and Methodology	Dimensionality And Measurement tool	Predictor	Mediator and Moderator	DV	Findings
Sfeir et al. (2022)	Lebanon Survey	Nine factors as follows: sunlight, water ,air, rest , exercise , nutrition , temperance, trust, and general physical condition; Healthy Lifestyle Screening Tool (HLST)	Emotional Intelligence (EI), Coping Strategies (approach and avoidance), Fear of COVID-19, Healthy lifestyle	Coping strategies, Healthy lifestyle	General Wellbeing(GWB)	A higher level of General Well-being (GWB) associated with healthy lifestyle, avoidant and approach coping strategies whereas a lower GWB was associated with more fear of COVID-19 in females compared to males.
Bukhari et al. (2022)	Pakistan, Quasi- experimental study	Three dimensions of healthy lifestyle: Nutritional knowledge, Healthy eating attitude aspects of nutrition, Daily life practices on Nutrition	Nutrition education		Nutritional knowledge, Healthy eating attitude aspects of nutrition, Daily life practices on Nutrition	Nutrition education had a positive impact on the lifestyle of female adolescents.
Tan et al. (2021)	Klang Valley, Malaysia. PLS-SEM 18 years and above	Unidimensional	Health consciousness, Food safety concern, Healthy lifestyle, Environmental consciousness, Price consciousness	Healthy lifestyle	Attitude toward eating "green".	Health consciousness, food safety concern, and healthy lifestyle have significant positive effects on attitudes toward eating green. Healthy lifestyle mediated the relationship between health consciousness and attitude toward eating "green".

	Lithuania,	Eight dimensions	Eight dimensions of		Healthy	Multidimensional healthy
	Survey,	healthy lifestyle:	Multidimensional		lifestyle	lifestyle construct consists of
	Self-	Spiritual Health	healthy lifestyle		,	the following eight
	organizing	(SPIRIT)	construct:			dimensions can be used to
	maps	Emotional and social	spiritual health, (b)			measure the healthy lifestyle
	1	relationships' health	emotional and			of consumers;
		(EMO_SOC),	social relationships'			Segment the market using
		Intellectual health	health			healthy lifestyle of consumers:
		(INTELLECT),	(c) intellectual			Healthy lifestyle guru,
		Mental health	health, (d)mental			Physical-health-oriented,
Gadeikienė		(MENTAL),	health, (e) physical			Mental well-being oriented,
et al.		Physical health	health, (f)			Unhealthy lifestyle
(2021)		(physical activity,	avoidance of			representatives
		nutrition)	substances harmful			
		(PHYSICAL),	to health,(g)external			
		Avoidance of	social health and			
		substances harmful to	(h)health			
		health (AVOID),	prevention.			
		External social				
		relationships' health				
		(EXT_SOC),				
		Health prevention				
-) (111 F	(PREVENT)	D1 1 1		3.6 . 1 . 11	Di
	Middle Eastern	Three dimensions of	Physical		Mental well	PA, dietary quality, and good
Kilani	and North	healthy lifestyle:	activities(PA)		being	sleeping positively affect
et al.	Africa	Physical activities(PA)	Dietary behavior,			mental well-being.
(2021)	(MENA)	Dietary behavior	Sleeping quality,			
	region, Survey	Sleeping quality	Age, BMI ,Gender, Health status			
	Indian	Unidimensional	Environmental	Environmen	Sustainable	Environment literacy has a
	Survey	Uniumensional	literacy	tal attitude,	lifestyle	significant influence on attitude
Biswas,	SEM		Environmental	Sustainable	practice	towards environmental
(2020)	~22111		attitude	lifestyle	Practice	conservation and ultimately on
()			Sustainable lifestyle	practice		decision to adopt a sustainable
			practice			and healthy lifestyle.

Chen et al. (2020)	Guangdong,Ch ina College students Survey	Four dimensions of Living rhythms: Time spent on focusing on COVID-19 information; Sleeping rhythms; Diet habits; Exercise habits	Demographic factors, Living rhythms, Perceived self- efficacy in managing negative and in expressing positive (RESE)	RESE	Depressive symptoms	Female respondents and senior students have higher depressive symptoms; Living rhythms significantly affect depressive symptoms; Favorable living rhythms are conducive to maintaining good levels of RESE; RESE is also a protective factor against depressive symptoms
Savelli et al. (2020)	UK Household level study Online survey PLS-PM	Three dimensions of healthy lifestyle: the unpredictability of food habits, purchasing food with the intention to eat healthily and eating out regularly.	Meals' regularity, Healthy food consumption, Eat home	Food waste preventing behavior	Food waste intensity	Healthy food consumption and eating at home, enhanced food waste reduction; The mediating effect of the food waste preventing behavior on the relationship between a healthy lifestyle and food waste intensity.
Matharu et al. (2020)	Indian Sustainable consumption in Sharing economy, SEM	Unidimensional	Lifestyle, Consumer attitude, Subjective norms, Perceived behavior control	Attitude, Intention	Sustainable consumption behavior	LOHAS tendency positively affect attitudes while attitudes, subjective norms and perceived behavioral control predict sustainable consumption behavior.
Sung & Hong (2019)	Slow Fashion Online survey Gen-Y males	Perceived value: Quality/emotional Perceived price Perceived social Decision-making styles Recreational Shopping Consciousness Perfectionism Brand Consciousness	Lifestyle of health and sustainability (LOHAS): Decision-making styles Perceived value Attitude Subjective norm	Perceived value Attitude	Purchase intention toward slow fashion	LOHAS positively influenced perceived value. Perceived value significantly increased attitude toward slow fashion. Several domains of decision-making styles significantly influenced perceived value. Attitude significantly

		Confused by Over choice Fashion Consciousness Price Consciousness Impulsive/Careless Habitual/Brand Loyal			increased purchase intention. Subjective norm significantly enhanced purchase intention.
Picha & Navratil (2019)	Czech Republic, Face-to-face interviews	Five factors of Lifestyle of health and sustainability (LOHAS): Sustainable Economy (SE) Healthy lifestyle (HL) Personal Development Alternative Healthcare Ecological lifestyle (EL)	Sustainable Economy Healthy lifestyle Personal Development Alternative Healthcare Ecological lifestyle	 Buying behaviour, Price, Quality, Marketing, Preference, Impulse buying, Influence, Interest, Adoption of new	HL and EL correlate strongly with the preference for products, interest in socially responsible consumption, and preference for domestic and local products. SE negatively correlates with marketing, impulse buying, and the price. SE positively affect preference for Fairtrade.
Kim & Kang (2019)	Korea, Survey, The Healthy Lifestyle, Screening Tool (HLST) development	Nine factors of HLST: sunlight, water, air, rest, exercise, nutrition, temperance, trust, and general physical condition.	Sunlight, water, air, rest, exercise, nutrition, temperance, trust, and general physical condition	 healthy lifestyle (HL)	HLST is a valid and reliable scale that can be used to measure HL among young adults; High scores on the HLST are indicative of HL.
Biggs et al. (2019)	USA Adolescents Questionnaires via a secure Internet link	Two dimensions of healthy lifestyle: healthy eating and physical activity. The Support for Healthy Lifestyle (SHeL)	Family Healthy Eating Support Family Physical Activity Support, Family Hypocritical Control, Peer Health Eating Support, Peer Physical Activity Support,	 Health behavior for adolescents: Healthy eating, Physical activity	In this study, the results of a questionnaire, Support for Healthy Lifestyle (SHeL), prove that it can provide an accurate and valid assessment of adolescents' perceptions of support from family, peers, and professionals regarding healthy eating and physical activity.

	T				_	
McGovern et al. (2018)	Southwestern United States, Survey, SEM	Healthy lifestyle behavior is one dimension of Behaviors, Healthy lifestyle belief is one dimension of Thinking	Peer Undermining, Professional Healthy Eating Support, Professional Physical Activity Support, Professional General Support Thinking: Perceived difficulty; Healthy lifestyle belief; Self-concept	Feeling: Anxiety; Depression Anger	Behaviors: Healthy lifestyle behavior; Disruptive behavior	More positive thoughts about engaging in healthy lifestyle behaviors reported less negative feelings and engaged in more healthy lifestyle behaviors.
Choi & Zhao (2014)	South Florida Survey	Four dimensions of Lifestyle related to health behaviors: Dietary Schedule Food pyramid Exercise Dietary supplements	Attributes of a restaurant, Lifestyle related to health behaviors		Intention to eat healthily	Lifestyle, offering variety of healthy food, and services were significant predictors of consumers' intention to order healthy food at a restaurant, whereas other attributes of restaurants were not significant predictors for the ordering of healthy food.
Gil et al. (2000)	Navarra and Madrid ,Spanish; Survey	Three dimensions of healthy lifestyle: Natural food consumption Life equilibrium Health care	Healthy lifestyle, Organic products attitudes, Environmental attitudes		Buying of organic food, Willingness to pay a high premium	Healthy lifestyle, Organic products attitudes, and Environmental attitudes positively affect the buying of organic food and willingness to pay a high premium.

8. Managerial Implications

The managerial implication of this study can be useful and meaningful for individuals, healthcare professionals, institutions, manufacturers and retailers. Individuals can recognize that developing healthy habits is not only a subjective concept but also influenced by socio-economic, cultural, environmental, and political factors. For example, by improving environmental literacy and environmental attitudes, consciously adjusting lifestyle to improve the quality of life, and making more informed consumption and living decisions from the perspective of personal health and a sustainable living environment (Picha & Navratil, 2019; Biswas, 2020). In addition, for people who often need to go out to eat, it is necessary to exercise regularly, formulate a diet plan, and take into account the dietary rules of the food pyramid to promote a healthy life. Because quality of service will also affect the consideration of ordering healthy food, people will neglect the food quality. Thus, restaurants had better provide more healthy food to affect consumers' consideration of ordering.

Healthcare professionals, associations, and organizations can improve the healthy lifestyle habits of individuals by improving their emotional intelligence, organizing and engaging in more physical activity, or suggesting coping strategies (Sfeir et al., 2022). By understanding the factors and outcomes of healthy lifestyle, schools, universities, and public and private associations can better improve educational programs, such as through education to educate future consumers about the consequences of food waste and how to avoid it (Salvelli et al., 2020). Formal education can also improve people's environmental literacy or knowledge about different types of environmental knowledge that influence their healthy lifestyle practices, such as incorporating a green vision into their curricula, practices, and activities (Biswas, 2020).

For industries, businesses, manufacturers, and retailers to formulate effective production and marketing strategies, it is important to understand an individual's lifestyle in depth. As consumers become increasingly concerned about environmental, social, and ethical issues, manufacturers should pay more attention to the quality and environmental protection of their products (Biswas, 2020). In addition, understanding the characteristics of this specific consumer group of LOHAS will have an impact on the decision-making of slow fashion marketers (Sung & Hong, 2019). Food companies can build a corporate image for the environment as well as foster healthier lifestyle by managing marketing policies, content, and media strategies, communicating with consumers about health-related values and the consequences of unhealthy eating, and finding the direction of business sustainability (Salvelli et al., 2020).

9. Conclusion and Future Research Directions

The main objective of this article was to provide a further understanding of the concept of healthy lifestyle behaviors from different perspectives. A literature review approach was adopted, reading, identifying, gathering, and analyzing the relevant literature. A plan of articles that were published in indexed journals during the last 5 years was considered because we wanted to know the latest directions of healthy lifestyle study.

Following the inclusion and exclusion criteria that we discussed earlier, 16 articles were selected fully according to the inclusion and exclusion criteria discussed earlier, except for 2 articles. The study of Gile et al. (2000) was an important article for this review with 932 citations till 1st Nov 2022, and another one published in 2014 with the topic of LOHAS, which was following the hot point of the present research. Besides, both of the two earlier articles could be used to help us further understand the progress of HL studies in the latest two decades roughly. On the basis of the review process we carried out, we attempted to contribute to a further holistic understanding of healthy lifestyle and the research progress and direction

of this domain with the changing world environment and people's health demands.

The review revealed the research direction of HL in latest 5 years, that is from the healthcare domain to healthy living and sustainable living, including physical health, mental health, healthy eating, balanced life, sustainable consumption, and coping with emergencies, such as the fear of COVID-19 pandemic, the disordered life. The studies of healthy lifestyle are becoming richer and richer. This review also revealed the research direction on the necessity for exploring more mediating and moderating variables about HL. A mediator explains how or why a relationship exists between IV and DV, while a moderator coordinates the strength and direction of the relationship between the IV and DV (Quoquab & Mohammad, 2020). Therefore, exploring moderators and/or mediators in the research can provide a better explanation of HL. Thus, future research directions are advised to include mediators and/or moderators about healthy lifestyle to improve the predictive ability of their theoretical model.

Besides, another obvious insufficiency in present studies was that there was no consensus among researchers on how to conceptualize the HL construct. The concept of healthy lifestyle was incorporated more and more contents in it and became more complex by different researchers, generating various huge measurement scales and multidimensional constructs for this concept. Some researchers measured it as a unidimensional construct (Tan et al., 2021; Biswas, 2020; McGovern et al., 2018), while others measured it as a multi-dimensional construct consisting of two dimensions (Biggs et al., 2019), three dimensions (Bukhari et al., 2022; Kilani et al., 2021; Savelli et al., 2020; Gil et al., 2000), four dimensions (Chen et al., 2020; Choi & Zhao, 2014), five dimensions (Picha & Navratil, 2019), eight dimensions (Gadeikienė et al., 2021) and even nine dimensions (Sfeir et al., 2022; Kim & Kang, 2019). Most importantly, there is no more contribution of new knowledge with these more dimensions, and became more complex and difficult to operate by researchers and added the difficulties to collect data from the target respondent for more prone to tired them.

The study is a review article on healthy lifestyle. Considering the inclusion and exclusion criteria, the study systematically reviewed 16 relevant articles and answered six major questions: What are the concepts of healthy lifestyle? What are the focus aspects of healthy lifestyle from different perspectives? What theories are being considered in relation to healthy lifestyle? What are the predictive factors of healthy lifestyle? What are the mediators and moderators of healthy lifestyle? What are the outcomes of healthy lifestyle? Such knowledge would enable us to understand the important knowledge gaps that exist in the field of healthy living. There is a need for further research to address these gaps and to develop a deeper and broader understanding of the concept of a healthy lifestyle.

Reference

- Ahorsu, D. K., Lin, C. Y., Imani, V., Safari, M., Grifths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: Development and initial validation. International Journal of Mental Health and Addiction, 1–9. https://doi.org/10.1007/s11469-020-00270-8.
- Biggs, B. K., Owens, M. T., Geske, J., Lebow, J. R., Kumar, S., Harper, K., ... & Clark, M. M. (2019). Development and initial validation of the Support for Healthy Lifestyle (SHeL) questionnaire for adolescents. Eating behaviors, 34, 101310.
- Biswas, A. (2020). A nexus between environmental literacy, environmental attitude and healthy living. Environmental Science and Pollution Research, 27(6), 5922-5931.
- Biswas A, Roy M (2015a) Green products: an exploratory study on the consumer behaviour in emerging economies of the east. J Clean Prod 87:463–468.
- Biswas A, Roy M (2015b) Leveraging factors for sustained green consumption behavior based on consumption value perceptions: testing the structural model. J Clean Prod 95:332–340.
- Bukhari, R., Asif, R., Farooq, S., Yasin, A., Ahsan, F. B., & Sheikh, A. S. (2022). Impact of Nutrition Education on Knowledge, Attitude, and Practices of School-Going Adolescents of Public and Private

- Schools Regarding Healthy Lifestyle. American Academic Scientific Research Journal for Engineering, Technology, and Sciences, 85(1), 212-222.
- Chen, R. N., Liang, S. W., Peng, Y., Li, X. G., Chen, J. B., Tang, S. Y., & Zhao, J. B. (2020). Mental health status and change in living rhythms among college students in China during the COVID-19 pandemic: A large-scale survey. Journal of Psychosomatic Research, 137, 110219.
- Choi, J., & Zhao, J. (2014). Consumers' behaviors when eating out: Does eating out change consumers' intention to eat healthily? British Food Journal, 116, 494-509.
- Colleen M. McGovern, Lisa K. Militello, Kimberly J. Arcoleo & Bernadette M. Melnyk (2018). Factors associated with healthy lifestyle behaviors among adolescents. National Association of Pediatric Nurse Practitioners.
- Divine, R.L. and Lepisto, L. (2005), "Analysis of the healthy lifestyle consumer", Journal of Consumer Marketing, Vol. 22 No. 5, pp. 275-283.
- Djermani, F., Sulaiman, Y., & Ismail, M. Y. S. (2021). The Effect of Product and Promotion on Consumption Patterns with Mediation Effect of Healthy Lifestyle. WSEAS Transactions on Environment and Development, 17, 520-532.
- Djermani, F., Sulaiman, Y., Mat, N. K. N., & Sahban, M. A. (2020). Consumers' Healthy Lifestyle: Does It Matter For The Consumption Pattern Of Healthy Food?. Jurnal Aplikasi Manajemen, Ekonomi dan Bisnis, 5(1), 43-57.
- Fromel, K., Kudlacek, M., Grofk, D., Svozil, Z., Simunek, A., & Garbaciak, W. (2017). Promoting healthy lifestyle and well-being in adolescents through outdoor physical activity. International Journal of Environmental Research and Public Health, 14(5). https://doi.org/10.3390/ijerph14050533
- Gadais, T., Boulanger, M., Trudeau, F. and Rivard, M.C. (2018), "Environments favorable to healthy lifestyles: a systematic review of initiatives in Canada", Journal of Sport and Health Science, Vol. 7 No. 1, pp. 7-18. 2018.
- Gadeikienė, A., Šalčiuvienė, L., Banytė, J., Dovalienė, A., Kavaliauskas, M., & Piligrimienė, Ž. (2021). Emerging consumer healthy lifestyles in Lithuania. Sustainability, 13(18), 10056.
- Gil, J. M., Gracia, A., & Sanchez, M. (2000). Market segmentation and willingness to pay for organic products in Spain. The International Food and Agribusiness Management Review, 3(2), 207-226.
- Goetzke, B., Nitzko, S. and Spiller, A. (2014), "Consumption of organic and functional food. A matter of well-being and health?", Appetite, Vol. 77, pp. 96-105. 2014.
- Hamid S, TahaIjab M, Sulaiman H, Anwar RM, Norman AA (2017) Social media for environmental sustainability awareness in higher education. Int J Sustain High Educ 18(4):474–491
- Jensen, M. Defining lifestyle. Environ. Sci. 2007, 4, 63–73.
- Kilani, H. A., Bataineh, M. F., Al-Nawayseh, A., Atiyat, K., Obeid, O., Abu-Hilal, M. M., Mansi, T., Al-Kilani, M., Al-Kitani, M., El-Saleh, M., Jaber, R. M., Sweidan, A., Himsi, M., Yousef, I., Alzeer, F., Nasrallah, M., Al Dhaheri, A. S., Al-Za'abi, A., Allala, O., Al-Kilani, L., ... Kilani, A. (2020). Healthy lifestyle behaviors are major predictors of mental wellbeing during COVID-19 pandemic confinement: A study on adult Arabs in higher educational institutions. PloS one, 15(12), e0243524. https://doi.org/10.1371/journal.pone.0243524
- Kim, C. H., & Kang, K. A. (2019). The validity and reliability of the Healthy Lifestyle Screening Tool. Physical Therapy Rehabilitation Science, 8(2), 99-110.
- Lazell, J. (2016), "Consumer food waste behaviour in universities: sharing as a means of prevention", Journal of Consumer Behaviour, Vol. 15 No. 5, pp. 430-439.
- Matharu, M., Jain, R., & Kamboj, S. (2020). Understanding the impact of lifestyle on sustainable consumption behavior: a sharing economy perspective. Management of Environmental Quality: An International Journal.
- Martin-Maria, N., Caballero, F. F., Moreno-Agostino, D., Olaya, B., Haro, J. M., Ayuso-Mateos, J. L., & Miret, M. (2020). Relationship between subjective well-being and healthy lifestyle behaviours in older

- adults: A longitudinal study. Aging & Mental Health, 24(4), 611–619. https://doi.org/10.1080/13607863.2018.1548567
- McGovern, C. M., Militello, L. K., Arcoleo, K. J., & Melnyk, B. M. (2018). Factors associated with healthy lifestyle behaviors among adolescents. Journal of Pediatric Health Care, 32(5), 473-480.
- Pícha, K., & Navrátil, J. (2019). The factors of Lifestyle of Health and Sustainability influencing proenvironmental buying behaviour. Journal of Cleaner Production, 234, 233-241.
- Plummer, J.T. (1974), "The concept and application of lifestyle segmentation", Journal of Marketing, Vol. 38 No. 1, pp. 33-37.
- Qing, P., Lobo, A. and Chongguang, L. (2012), "The impact of lifestyle and ethnocentrism on consumers' purchase intentions of fresh fruit in China", Journal of Consumer Marketing, Vol. 29 No. 1, pp. 43-51.
- Quoquab, F., & Mohammad, J. (2020). A review of sustainable consumption (2000 to 2020): What we know and what we need to know. Journal of Global Marketing, 33(5), 305-334.
- Roodhuyzen, D.M.A., Luning, P.A., Fogliano, V. and Steenbekkers, L.P.A. (2017), "Putting together the puzzle of consumer food waste: towards an integral perspective", Trends in Food Science & Technology, Vol. 68, pp. 37-50.
- Savelli, E., Francioni, B. and Curina, I. (2020), "Healthy lifestyle and food waste behavior", Journal of Consumer Marketing, Vol. 37 No. 2, pp. 148-159. https://doi.org/10.1108/JCM-10-2018-2890
- Saint Onge, J. M., & Krueger, P. M. (2017). Health Lifestyle Behaviors among U.S. Adults. SSM population health, 3, 89–98. https://doi.org/10.1016/j.ssmph.2016.12.009
- Sevil, J., García-González, L., Abós, Á., Generelo, E., & Aibar, A. (2019). Can high schools be an effective setting to promote healthy lifestyles? Effects of a multiple behavior change intervention in adolescents. Journal of Adolescent Health, 64(4), 478-486.
- Schanes, K., Dobernig, K. and Gozet, B. (2018), "Food waste matters a systematic review of household food waste practices and their policy implications", Journal of Cleaner Production, Vol. 182, pp. 978-991.
- Sfeir, M., Akel, M., Hallit, S., & Obeid, S. (2022). Factors associated with general well-being among Lebanese adults: the role of emotional intelligence, fear of COVID, healthy lifestyle, coping strategies (avoidance and approach). Current Psychology, 1-10.
- Soroka, A., & Wojciechowska-Solis, J. (2019). Consumer Motivation to Buy Organic Food Depends on Lifestyle. Foods (Basel, Switzerland), 8(11), 581. https://doi.org/10.3390/foods8110581
- Streimikiene D (2015) Environmental indicators for the assessment of quality of life. Int Econ 9:67–79
- Sung, J., & Woo, H. (2019). Investigating male consumers' lifestyle of health and sustainability (LOHAS) and perception toward slow fashion. Journal of Retailing and Consumer Services, 49, 120-128.
- Swaim J, Maloni M, Napshin S, Henley A (2014) Influences on student intention and behavior toward environmental sustainability. J Bus Ethics 124(3):465–484.
- Tan, B.C., Lau, T., Sarwar, A., & Khan, N. (2021). The effects of consumer consciousness, food safety concern and healthy lifestyle on attitudes toward eating "green". British Food Journal.
- Zhou, X., & Krishnan, A. (2019). What predicts exercise maintenance and well-being? Examining the influence of health-related psychographic factors and social media communication. Health communication, 34(6), 589-597.