Original Article

Internal motivations and barriers effective on the healthy lifestyle of middle-aged women: A qualitative approach

Behnaz Enjezab, Ziba Farajzadegan[1], Fariba Taleghani[2], Abbas Aflatoonian[3]

Abstract

Background and Objective: A healthy lifestyle is one of the basic health-promotion strategies. Several factors are involved in shaping health-promotion behaviors. The internal barriers are the opinion and feelings that surround the individual and are the reasons that complicate the change of behavior. The aim of this study was to identify internal motivations and barriers effective on the healthy lifestyle in middle-aged Iranian women.

Materials and Methods: This was a qualitative study based on content analysis of in-depth semi-structured interviews with 21 middle-aged women in the city of Yazd, who were selected using purposeful sampling approach. The interviews continued until data saturation was reached; and the interviews were audio-recorded and transcribed exactly. The transcripts were analyzed.

Results: Five main themes emerged from the analysis of the interviews: Women's knowledge of health-promoting behaviors, importance of health and healthy behavior of women, affliction or fear of affliction to chronic disease and its consequences, responsibilities of women in the family and society, and skills of life management in women.

Conclusion: The findings suggest that empowering individual participants in health promotion is the most important factor determining their health. Thus, designing appropriate programs for education and empowerment of people is essential to promoting health. Health policy makers, with knowledge of these factors, can design comprehensive, socialization programs to promote women's health.

Key words: Health promotion, Iran, motivation, qualitative research, women's health

Introduction

Nowadays, the life expectancy of women has increased significantly in most countries, but in some countries, such as Iran, healthy life expectancy has seen no meaningful increase. According to the report of World Bank in 2007, healthy life expectancy for Iranian women is 59 years, but the healthy life expectancy for women in Iran's neighboring countries, such as Oman, Qatar, Russia, Saudi Arabia, Syria, Turkey, and the United Arabic Emirates (UAE), is reported to be between 63 and 65 years, and for the countries of Ireland, Norway, and Sweden, it has been reported to be between 73 and 75 years.[1]

With increasing life expectancy, a major challenge appears to be about how to increase the quality of life and the healthy life years,[2] while there is increase in the noncommunicable diseases, such as obesity, cardiovascular disease, cancer, diabetes, and other threats to the health and community development. It is expected that by 2020, the noncommunicable diseases would attribute to 73% mortality and 60% of the global burden of disease.[3]

On the other hand, these diseases are preventable by limiting the risk factors and modifying the lifestyle, including following healthy diets, doing sufficient exercise, and not drinking alcohol and smoking, so that 80% of

Faculty of Nursing & Midwifery, Isfahan university of medical sciences, Isfahan, and Faculty of Nursing & Midwifery Shahid Sadoughi University of Medical Sciences, Yazd, [1]Department of Community-Preventive Medicine, Isfahan university of medical sciences, [2]Nursing and Midwifery Care Research Center, Faculty of Nursing & Midwifery, Isfahan University of Medical Sciences, [3]Research Center for Infertility, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

Address for correspondence: Dr. Fariba Taleghani, Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran. E-mail: taleghani@nm.mui.ac.ir

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cardiovascular disease, stroke, type 2 diabetes, and cancer cases can be prevented.[3,4] Also, women are faced with more and different events and challenges than their coeval men.

Middle-aged women are vulnerable to physiologic, psychosocial, and economic factors . Women often have to do things that are beyond their time and capacities. Family responsibilities, work, and housework, all are the demanded preferences of women that result in lack of time for considering their health issues.[5]

In addition, factors such as their understanding of health problems, health insurance, and access to health care, social factors (education, employment, wages, and marital status), and cultural and economic factors affect women's health, and are important in planning their health program.[6] On the other hand, first experience of chronic diseases, such as high blood pressure, arthritis, heart disease, and diabetes, occurs in the middle age in women, and as a result of physiologic reasons due to the phenomenon of menopause, they are susceptible to changes that may affect their health.[7]

Although are known the basic elements of a healthy lifestyle, why middle-aged women do not follow? What obstacles do they have in following the health programs?

Timmerman[8] believes that the internal barriers are the thoughts and feelings that surround an individual and are the reasons that make it difficult to change the individual's behavior. These internal barriers include lack of time and motivation, lack of knowledge, enjoying bad behavior, indolence, tiredness, irritability, and no belief in the fact that behavior can be successfully changed. John and Ziebland[9] carried out a large 3-year follow-up study for considering the internal and external barriers to changing diet and physical activity of participants; they recognized that 61% of barriers were internal barriers and 9% were external barriers. Also, in another study, Holgado *et al.*[10] showed that in compliance with a healthy diet, the internal barriers, such as lack of time, are considered as more difficult barriers than the external barriers, such as costs.

In a qualitative study by Parvizi *et al.*[11] focusing on the theoretical explanation of health from the viewpoint of women, sweetness and difficulty in maternal role, social and cultural factors affecting women's health, and family health were the main categories of health concepts expressed. In this study, women expressed that factors such as employment, education, and health awareness have an effect on their health. In the examination of barriers to women's participation in sports and its relationship with motivation, Naderian *et al*.[12] analyzed the relationship between the personal barriers, such as lack of interest, lack of awareness, and physical–psychological problems, and the exercise motivation of the individuals, and in this study also, lack of awareness was considered as the effective factor for insufficient exercise. Researches have shown that the women who were successfully involved in the health-enhancing behaviors are more likely to engage in them in the present and future. Unfortunately, the individual methods, such as healthy diet, exercise, and health responsibility, are not common among middle-aged women for reducing the risks of lifestyle disorders and they risk their health by adopting undesirable life patterns and health-destructive behaviors during their life.[5]

One of the ways by which the health status of different classes in the society is improved is by designing appropriate programs for this group according to their special needs. Qualitative researches help us to understand the human phenomena by emphasizing on their social context. Also, this method would be applied in situations with limited understanding of the phenomenon in which the aim of the study is generating new ideas that can help to modify a topic and evidence–structure-based planning and designing.[13,14] In the developing countries, such as Iran, as a Muslim and developing country with its special c ultural and social background, and different health status indicators compared to other countries, and its demographic transition and aging perspective in the coming years, we need to do independent research in the women's health area in order to attain the strategies for universal health planning in accordance with our special cultural and social conditions. So, the researchers carried out a comprehensive study titled "Health promoting behaviors of middle-aged women and exploring effective factors in order to offering strategies for their health management through a sequential mixed methods approach" to provide strategies for the infrastructure of a proper and sociable program to promote the health of Iranian middle-aged women by hearing their voice. In this study, the motivation and effective internal barriers on healthy lifestyle of middle-aged women had a significant role in the determinants of women health promotion, and it included the major part of women's expression. So, the analyses were separately reported in this study.

Materials and Methods

This was a qualitative study based on content analysis; and it was part of a wider study, which used a sequential mixed-method design. Qualitative researchers rely on various qualitative methods to explore the behaviors, attitudes, and experiences of people within the context of their lives.[15] Thus, we adopted a qualitative approach to gain an in-depth understanding of internal motivations and barriers affecting the healthy lifestyle of middle-aged

women, and used data extracted from their statements to propose strategies for promoting their health. So, as part of the quantitative study, to examine health-promoting behaviors in 483 middle-aged women and then to determine internal motivations and barriers affecting the healthy lifestyle, we conducted in-depth, semi-structured interviews with women at the best and worst extremes of the health behavior spectrum as the community of study, according to scores given to participants in the earlier study. Finally, 21 women between 40 and 60 years of age were selected by using purposeful sampling. We strived to achieve maximum variation in terms of age (40–60 years), education, employment, number of children, marital status, and socioeconomic background. Using the questionnaires completed in the quantitative phase of the study, we selected suitable candidates and contacted them by telephone before meeting them face-to-face; the aim of the study was explained and interviews were arranged at a convenient time and location for the participants (in a health center, at home, at workplace, or in a park). The study relied on in-depth interviews as the main tool for data collection. Two of the interviews were conducted in two sessions and the rest in one. The interviews lasted 20–60 min and were digitally recorded using an MP3 voice recorder. The interviewees' personal details were recorded immediately after each interview and field notes were taken of the verbal/nonverbal interactions during the interview; these would complement other data. Data were processed using inductive content analysis. Recordings of interviews were listened to several times and transcribed verbatim. Interview transcripts/field notes were carefully examined to extract key meanings/concepts. Primary codes were assigned to each sentence/keyword identified as a unit of meaning. Primary categories were extracted from the grouping of similar primary codes. Main categories emerged from the assimilation of primary categories; and abstraction was applied at each stage to yield fewer categories. The following measures were taken to increase the credibility and validity of findings:

(1) In-depth interviews with selected subjects were conducted at different times and locations, (2) transcripts were read several times to achieve data immersion, and (3) subjects were selected from across the community spectrum to achieve maximum diversity of age and socioeconomic/cultural status. Member checking and peer examination were used to ensure the objectivity, transferability, and reliability of findings. External evaluators were asked to examine the codes/categories and report any inconsistency that might exist between the extracted categories and the interviewees' remarks; consensus about the accuracy of codes was more than 90%. This study was approved by the Medical Ethics Committee of Isfahan University of Medical Sciences.

Results

The data were obtained from the in-depth interviews conducted with 21 women. Table 1 summarizes the interviewees' characteristics. The study was conducted in the Central Iranian city of Yazd, a city of nearly half a million population and well known for its highly religious and traditional culture. For adopting a healthy lifestyle, the analysis of data revealed five main themes related to the middle-aged women's internal barriers and motivation, which are as follows:

- Women's knowledge of health-promoting behaviors
- Importance of health and healthy behavior for women
- Affliction or fear of affliction to chronic disease and its consequences
- Responsibilities of women in the family and society
- Skills of life management by women

Women's knowledge of health-promoting behaviors

One of the extracted concepts was the knowledge and awareness of women in the field of nutrition, physical activity, and health responsibility. Nutritional knowledge means having information and awareness about the nutritional needs of women in this age group, familiarity with different food groups, their properties, importance of each food group for providing health, and body needs to each one of the food groups. If women had good nutritional knowledge, health-promoting behaviors related to nutrition would be observed in them and vice versa.

One of the participants said:
"*I use vegetables and dairy products or at least I try to search and find my used protein in this rows by using grains and cereals and so on and determine my diet on this basis, namely, using a complete plate of salads with different vegetables, which included different grains and vegetables and surely there is dairy in my diet.*"

Table 1: The interviewees' characteristics (n = 21)

Characteristics	*N*	%
Age		
40–49 years old	12	57
50–60 years old	9	43
Educational level		
Illiterate	2	9.5
Grade school	10	47.7
High school	5	23.8
University	4	19
Number of children		
≤2	4	19
>2	17	81
Job status		
Housewife	16	76.2
Employee	4	19
Retired	1	7.8
Total	21	100

Also, another participant who did not have any proper health-promoting behaviors stated:
"*I do not know what to do and what do eat, I do not have access to anywhere, I know that exercise, proper food, and fruit are good for health but I do not know what to do.*"

Knowledge and awareness about the physical exercise and its effects on physical and psychological health is another area of healthy behavior. Although most people had more knowledge about the positive effects of exercise on the mental health and human spirit, many of them had not much information about the effects of exercise on the health of cardiovascular and musculoskeletal systems and they recognized the most important effect of exercise as preventing obesity and improving physical fitness.

"*I do exercise and go to fitness classes for almost 20 years, but it is for about 6 years that I exercise continuously because I have found very good effects of it on my mood and body.*"

Most of the women considered their daily living activities and household chores and home affairs as the physical activities, and the special programs, such as routine walking and recreational or regular physical activity, were followed by a few of them.

Most of the women did not have any awareness about screening of breast and cervical cancer. For example, when a participant was asked if she underwent the breast and gynecologic examinations, she replied:
"*No, I never had a problem or pain and I didn't do that.*"

Most of the studied women had no proper understanding of preventive methods of disease, screening, and early detection of diseases, and they thought that for referring to doctor and controlling the health, one needs to have clinical symptoms and health problems. But the women themselves confessed that they need to be trained for health-promoting behaviors and stated that spreading awareness and information through the media, offering training packages to homes, and providing training programs in women's weekly religious meetings are the proper training methods.

Importance of health and healthy behavior for women

Giving importance to health and considering it as a value in life is considered as another effective factor for performing the health-promoting behaviors, but most people do not care to perform health-promoting behaviors even when they know its importance.
"*I know I must do something for my health but in fact, I didn't care about them till now.*"

And a participant who was asked whether she had any knowledge about this matter replied:
"*Why not; nowadays the media gives information about this matter but as I didn't have any special problem and I was healthy, so I didn't care to do it.*"

Another woman said:
"*Till now, I never thought of exercise and in reality one doesn't think about her aging until a part of her body starts to pain, we feel that only the others are aged.*"

In this study, many of the participants were not aware of the importance of the role of physical factors (proper diet and physical activity and health responsibility); especially the young women had an unrealistic optimism that they would never face any important physical problem and this group was so indifferent to the health-promoting behaviors.

Affliction or fear of affliction to chronic disease and its consequences

Chronic disease is a long-term disease that can cause changes in the body and also limits the bodily functions. Chronic diseases usually need long-term treatment and have difficult recovery process. In some cases, the disease is incurable and there is not any certainty and clear treatment for it. One has to endure it for a long period of his life or until the end of his life, and cope with its complications. So, affliction or fear of affliction to chronic disease in some persons, observing the disease in the families and relations, and also observing the side effects of these diseases caused the women pay more attention to performing the health-promoting behaviors.

"*I got dizziness in my 45 years; I was tested and found to have high blood fat. Since then, I am so careful with my diet.*"

Existence of a disease in the participants was another factor that led to health behaviors.

Also, considering aging, chronic diseases, and avoiding health complications in some people led to performing the desired behavior.

"*I do blood test once a year; I couldn't say that I'm afraid but if I could just do something with a little prevention, I do not want my kids to fall in trouble and I don't want to have their care*

Most participants got more precise in performing the healthy behaviors by observing the illness and its consequences in their surroundings.

Women had different ideas about cancer; in some of them the fear of cancer made them pay more attention

to screening and in some of them it prevented them from this behavior.

"*As I am afraid of breast cancer, I have visited doctor and went twice to do mammography.*"

While the other participant stated:
"*I know that the breast examination and mammography is so important but I don't follow them, I am afraid of mammography; I am afraid that some dangerous thing is diagnosed in my breast; now I am relaxed by knowing nothing.*"

The rate of awareness and knowledge about the disease discovering methods were effective on the women's attitude about using them.

On the other hand, disease, especially heart disease and osteoarthritis, prevented some women from doing exercises:

"*I don't exercise. Sometimes I decide to walk at least but I leave it (because of) my back and knee pain.*"

The prevalence of chronic diseases in middle-aged and elderly women participants was a motivating factor for considering a proper diet, avoiding sweets and fatty foods, and regular laboratory evaluation.

Responsibilities of women in the family and society

All the responsibilities inside and outside home interfered with performing the health behaviors and with reference to them, women said as being too busy, leading to lack of time, and overexpectations.

Despite having the knowledge, motivation, and attention to disease prevention, a number of middle-aged women had several responsibilities in their life that made them not to care for their health status duly. As an example, they said that having several children in each age group and supervising them do not leave any opportunity for them to care for themselves.

"*I have more children and have to care them, I am busy, I want to care about myself to some extent but I can't.*"

Outside working along with the household duties and the responsibilities of the children are considered as a barrier for women in caring for themselves:
"*I do not exercise at all because I do not have any time, I must work at home and also do the outside home tasks.*"

Another employed participant said:
"*I can't (be) present in the fitness classes at evenings as it wastes my time; children's extra classes in school and their extra language courses requires that I myself have to take and bring them which interferes with my program and I can't do it in the morning as I am employed and have to work.*"

Skills of life management by women

The ideas of the participants showed that the women with better ability of controlling, managing, planning, and decision making in their life affairs can perform the health-promoting behaviors better than others. On the other hand, the passive people, without managing power and with poor decision making, were weaker than others in health-promoting behaviors and we referred to these properties as the life management skills by women. The skills that they were required to have included decision-making, planning, and management skills.

All the participants referred to the role of will and power to make decisions in performing the health behaviors under all circumstances. Some of the participants had very high strength and felt confident to perform healthy behaviors, for example, a participant who was asked about what caused her have a regular walking program replied:
"*My will; also I am planning for it, if you are a precise person, you can regulate to do it regardless of any problem.*"

Some of the participants expressed low self-confidence in their ability to have a healthy attitude and their commitment to the continuation of that behavior. In this relation, a participant said:
"*Ambition is the first required thing for having a regular exercise program, namely, one must have a strong will, for example, I must have the ambition to say myself 'go and do your walking until the weather is nice and then do your rest (of the) tasks' but I never do so.*"

In addition to these, almost all the participants recognized the important role of planning in the health promotion behaviors and believed that proper planning is required for having a healthy life. A participant who was asked about what helped her to have a regular program replied:
"*I think where there is a will there is a way, every thing must be planned, if so, everyone can reach to everything he wants, in such a manner he can care for himself, his family, and his parents.*"

In comparison with the other skills, management skills, particularly time management, income management, and family costs, are considered as the most effective factors on the women's health-promoting behaviors.

"*In preparing the foods, I consider my health and the family members' health, I myself decide what must be purchased,*

my son or husband does the purchase but I tell them what they must buy; for instance, when they come home at night they must always buy a packet of milk."

The special role of health and prevention costs in the family expenses is not yet recognized and most of the participants avoid spending in this field and do not consider it as a necessary matter, as a participant says:
"*Maybe I am guilty, I say to myself that instead of going to laboratory and spending much money I prefer to spend that money in my life requirements; I know, I make a mistake.*"

According to this study, lack of awareness and not paying attention to healthy lifestyle, lack of time, and multiple roles were the barriers of health-promotion behaviors in the participants. Also, having a noncommunicable disease or fear of getting affected by it and empowerment in family management were the internal motivators of a healthy behavior.

Discussion

The obtained results of the present study show that having sufficient knowledge and information for performing healthy behaviors and giving importance to healthy behavior, in the first stage, is a necessary factor for making a healthy lifestyle. People with better nutritional information gave more importance to their health and were aware of the effects of poor nutrition and lack of exercise on their health and also, they had better nutritional behaviors and physical activities compared with others. Also, awareness of the disease and screening methods and their importance in early diagnosis of disease were considered as an effective factor in health responsibility and performing a healthy behavior. In providing global strategies for improving the proper nutrition and physical activity in order to control noncommunicable diseases, World Health Organization has propounded increasing overall awareness and understanding about the effects of diet and physical activity on health and the positive impact of preventive interventions for communities as one of the presented aims and also considers providing accurate and balanced information about the food to the consumers as executive instructions in order for people to have better information and healthy choices.[16] According to the study by Brug *et al.*,[17] "Examination of the Social-Psychological Determinants in Fruit and Vegetable Usage in Adults ," six different categories were generally introduced as the most important factors in fruit and vegetable usage in adults, in which the understanding of healthy results arising from fruit and vegetable usage, lack of awareness of healthy results of fruit and vegetable usage, and also lack of awareness of recommended rates for usage are recognized as the most important determinants. In a study carried out to examine the effective factors on the healthy food usage, McGee *et al*.[18] through a qualitative research found that the understanding of people about a healthy diet is influenced by personal and external factors, including the health, concerns, family effects, need, and access to nutritional information, and the participations of this study tended to be trained in the fields of healthy nutrition, food preparing skills, and controlling the food portions.

The results of another study showed that people with lower practical knowledge about nutrition had lower consumption of fruits, vegetables, and water, and higher consumption of sausages.[19] Although there is a general agreement that nutrition knowledge is an essential factor, it is not a sufficient factor to change the feeding behavior.[20] Also, in the field of preventive care and health care, researchers believe that the sufficient knowledge will be effective. Several studies have shown that having sufficient information and awareness of symptoms of disease and methods of screening for cancer is one of the important stimuli, and lack of awareness about it is considered as a major obstacle for performing these behaviors.[21-26] In a qualitative study performed by Beeker *et al.*[27] for the examination the obstacles of screening for colon cancer in middle-aged men and women, older than 50 years, it was found that the poor information about colon cancer, the potential benefits of screening, little reporting from the doctors or mass media, negative attitude to the screening procedure for colon cancer, and the fear of cancer were some of the barriers to the screening.

Giving importance to the health was another concept, which appeared from the women's ideas ; also, Wang *et al.*[28] found that the understanding of healthy behaviors has a positive effect on using healthy foods, such as fruits and vegetables, and also it has a negative effect on using unhealthy foods, such as the sweets and fats. In a study by Naderian *et al.*,[12] there was a significant relationship between the internal barriers (lack of interest, lack of awareness, and physical–mental problems) and the rate of motivation to exercise and also, in this study, lack of awareness was considered as an effective barrier to the shortage of physical activities. But in comparison with the other barriers, lack of awareness is considered as a minimal barrier to physical activities. Training people in health centers, the use of mass media, Internet, and so on, are considered as strategies to increase knowledge, motivation, and importance of women's health promotion.

According to researches, health status is a major stimulus for changing the eating habits or physical activity. Some people choose a desired nutritional behavior or do physical activities because of suffering from a chronic disease,

such as diabetes, hypertension, or hypercholesterolemia, and they believe that are required to follow the desired behavior for the prevention of these diseases; also, most of the adults are more likely to make changes in their diet only after diagnosis of a disease.[29,30] Also, McGee *et al*.[18] found that health problems are strong incentives, which are effective in making changes in the food consumption patterns, so that participants believed that diseases, such as hypertension, diabetes, kidney disease, and cardiovascular disease, are effective in influencing their food choices. But on the other hand, osteoporosis, arthritis disease, or heart disease in women were considered as a barrier to participation in physical activity; in the study by Rimmer *et al.*,[31] physical pain and problems (63/6%) was considered as the most important personal barrier to continue the physical activities. Casey *et al.*[32] expressed the diseases associated with diabetes as a reason for stopping the regular exercise program.

Also, the Research Society of American Retirees showed that lack of time, fatigue, health problems, such as arthritis, chronic pain, injury, disability, health and heart problems, are considered as the major barriers to physical activities in the middle-aged women.[33] In this study, women's family responsibilities and their busy schedule at home are introduced as another effective factor for not having a healthy lifestyle. Although nowadays women form a big part of workforce, this matter has not changed the expectations from women. Women still have a major responsibility of caring family, children, and other family members, in addition to their responsibilities outside the home. This large complex set of responsibilities leaves them with little time for self-care. So, women mentioned lack of time as a barrier to exercise and preparing fresh food.[34]

A study in America for examination of the barriers and facilitators of fruit and vegetable consumption among different ethnic communities showed lack of time as the first personal barrier in providing and preparing fresh fruits and foods as they are time-consuming tasks,[35] and other studies have obtained similar results too.[36,37] The employed women who also must do housekeeping duties face a lot of stress, which can cause negative effects on their health status if they were not supported by the society and family.

Most of the studies carried out by the researchers consider the lack of time issue for women and show that the time stress and lack of time are the barriers for women that prevent them from engaging in their healthy affairs. So, the multiple responsibilities of women in doing the duties of out of home as an emploee, engaging in household tasks, training children, caring for children and elderly parents, and their other responsibilities at home make them forget to take care of themselves.

In addition, women often because of feeling motherly if they prefer their needs to family needs, it will be course feeling selfishness and role conflict.[34]

The next effective factor, namely, management and planning in the family, is also important. Management at home means managing or optimizing the home affairs at all levels; meanwhile, women have always played a key role, and a mother, as a manager, must acquire the necessary ability for executing the health–economy issues, improving the internal situation of the family, promoting the relationships between family members, creating economic savings, training children, planning for a healthy diet, and so on. In a qualitative study by Parvizi *et al.*,[11] they introduced a healthy family as a central variable and a precondition for the health of women and also, they introduced the training of life skills, problem solving, time management, and house controlling as a strategy for strengthening of family and women's health.

Health care providers with a mission and a great role in preserving and promoting the health of women can consider both the women and families as a target group in health–social planning and also in training the life skills as the basis of health trainings that they plan for women.

Although the findings of the qualitative research cannot be generalized to other communities, there are some ways for providing acceptability and objectivity for data and increasing the accuracy of used data, which can help in applying these results for similar communities.

Conclusions

By examination of the main categories emerged in this study, we can conclude that the personal abilities of the participants in the health-promoting behaviors are considered as an important determinant factor in health.

Results of the study show that women were empowered by having skills of family management, planning for life, and decision making for health-promoting behaviors. By considering the fact that the present health system strategy for health promoting of the middle-aged women could not have an all-out support, it is suggested that for designing program for middle -aged women's health, life skills and home management training have to be considered synchronous with healthy lifestyle training.

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