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ORIGINAL ARTICLE

Evaluation of Health Literacy and Healthy Lifestyle Behaviors in Vocational Training Center Students

Mesleki Eğitim Merkezi Öğrencilerinde Sağlık Okuryazarlığı ve Sağlıklı Yaşam Biçimi Davranışlarının Değerlendirilmesi

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Abstract

Aims: This study aimed to determine the relationship between health literacy (HLL) levels and healthy lifestyle behaviors (HBSB) of vocational education center students.
Methods: The cross-sectional study was conducted with 343 children studying in vocational education centers in a city center between April 1-30, 2024. The "Personal Information Form", 'Health Literacy Scale for School-Age Children (HLSC)' and 'Healthy Lifestyle Behaviors Scale II (HRBS-II)' were used as data collection tools. Data were analyzed using descriptive (mean, standard deviation, frequency, and percentage) and analytical (One-Way ANOVA, Independent T-test, Spearman's Correlation) statistics. A statistical significance level of $p<0.05$ was accepted.
Results: In the analysis made according to the descriptive characteristics of the participants, significant differences were found between 10th and 12th-grade students, income status, regular weighing, eating habits, and health education in both scales ($p<0.05$). Participants with high levels of health literacy had higher scores on the SICBS, and as the level of health literacy increased, an increase was observed in sub-dimensions such as spiritual development, interpersonal relationships, and stress management. Participants with moderate health literacy had significantly higher scores than those with low health literacy ($p<0.001$). In the regression analysis, it was found that the theoretical knowledge sub-dimension of the HLSS contributed positively to the total score of the HLSS ($p=0.044$). The model explains 13.1% of the change in the SFL score.
Conclusion: This study revealed that health literacy level has positive effects on healthy lifestyle behaviors. It was observed that individuals with high health literacy had higher quality of life and healthier health behaviors. In addition, health education and regular health follow-up were found to contribute to individuals' health literacy.

Keywords: Child workers, Healthy behavior, Health literacy

ÖZ

Amaç: Bu çalışmada mesleki eğitim merkezi öğrencilerinin sağlık okuryazarlığı (SOY) düzeyleri ve sağlıklı yaşam biçimi davranışları (SYBD) arasındaki ilişkinin belirlenmesi amaçlanmıştır.
Yöntem: Kesitsel tipteki çalışma 1-30 Nisan 2024 tarihleri arasında bir il merkezindeki mesleki eğitim merkezlerinde öğrenim gören 343 çocuk ile yürütülmüştür. Veri toplama araçları olarak "Kişisel Bilgi Formu", "Okul Çağındaki Çocuklar için Sağlık Okuryazarlığı Ölçeği (SOYÖ)" ve "Sağlıklı Yaşam Biçimi Davranışları Ölçeği II (SYBDÖ-II)" kullanılmıştır. Veriler; tanımlayıcı (ortalama, standart sapma, frekans ve yüzde) ve analitik (One-Way ANOVA, İndependent T-test, Spearman's Correlation) istatistikler kullanılarak analiz edilmiştir. İstatistiksel anlamlılık düzeyi olarak $p<0.05$ kabul edilmiştir.
Bulgular: Çalışmaya katılanların % 39,9'u düşük, %53,6'sı orta düzeyde SOY'a sahip olduğu tespit edilmiştir Katılımcıların tanımlayıcı özelliklerine göre yapılan analizde, 10. ve 12. sınıf öğrencileri, gelir durumu, düzenli tartılma, beslenme alışkanlıkları ve sağlık eğitimi durumları arasında her iki ölçekten anlamlı farklar bulunmuştur ($p<0,05$). Yüksek sağlık okuryazarlığına sahip katılımcıların SYBDÖ puanları daha yüksek olup, sağlık okuryazarlığı düzeyi arttıkça manevi gelişim, kişiler arası ilişkiler ve stres yönetimi gibi alt boyutlarda da artış gözlenmiştir. Orta düzeyde sağlık okuryazarlığına sahip katılımcılar, düşük okuryazarlık düzeyindekilerden anlamlı şekilde yüksek puanlar almıştır ($p<0,001$). Regresyon analizinde, SOYÖ teorik bilgi alt boyutunun SYBDÖ toplam puanına pozitif katkı sağladığı tespit edilmiştir ($p=0,044$). Model, SOYÖ puanındaki değişimin %13.1'ini açıklamaktadır.
Sonuç: Bu çalışma, sağlık okuryazarlığı düzeyinin sağlıklı yaşam biçimi davranışları üzerinde olumlu etkiler yaratttığını ortaya koymuştur. Yüksek sağlık okuryazarlığına sahip bireylerin, yaşam kalitelerinin daha yüksek ve sağlık davranışlarının daha sağlıklı olduğu gözlemlenmiştir. Ayrıca, sağlık eğitimi ve düzenli sağlık takibinin, bireylerin sağlık okuryazarlığına katkı sağladığı bulunmuştur.

Anahtar kelimeler: Çocuk işçi, Sağlıklı davranış, Sağlık okuryazarlığı

Introduction

The World Health Organization (WHO) defines health as a state of well-being that includes not only physical development but also psychosocial development. Adolescence is a crucial phase in the transition from childhood to adulthood, and the health of adolescents is of great importance to society (1). Acquiring health knowledge, keeping up with health developments, and engaging in healthy behaviors are essential for maintaining health and well-being (2,3).

In recent years, the WHO and other international organizations have emphasized health literacy (HL) as an important determinant of health (4). HL is defined as the ability of individuals to acquire, understand, and use health information (5). Research has shown that HL is associated with healthy behaviors, access to healthcare services, health conditions, long-term health issues, and social inequalities (6-8). Focusing on HL, especially during adolescence, is critical for lifespan and long-term health (9). Adolescence is one of the most suitable periods to develop health skills, and examining the

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factors that influence adolescents' health behaviors can help prevent negative health outcomes (10).

Vocational training centers are institutions established to provide education for apprentices, journeymen, and masters to offer various vocational courses. Students attending vocational training centers continue their education by working in different fields. In this process, the acquisition of healthy lifestyle habits is of critical importance, both for an individual's health and for their future productivity in the workforce.

A study conducted on students attending health vocational high schools in Turkey found that their HL levels were below average (11). Similarly, in Denmark, the HL level of children undergoing vocational education and training was found to be low (9). Children make up 26.5% of Turkey's population, and the labor force participation rate of children aged 15-17 has reached 18.7% (12). This situation can negatively affect the growth and development of children under the age of 18. Workers in this age group typically have low experience and skills, making them more vulnerable to workplace accidents and occupational diseases (13).

Research has shown that individuals with inadequate HL are at higher risk for exhibiting unhealthy behaviors (such as smoking, alcohol consumption, low physical activity, and poor nutrition), while individuals with sufficient HL make more informed health decisions. Therefore, children and adolescents should be educated about health literacy, and skills for accessing, understanding, and following correct health information should be developed. Raising awareness about HL is essential for promoting healthy lifestyle habits and preventing diseases (14,15). Adolescents' tendency to engage in risky behaviors increases their exposure to health problems and occupational hazards. Interventions during this period will help adolescents adopt healthy behaviors throughout their lives and protect them from accidents and diseases (1,16,17). This study aims to determine the HL levels of adolescents working while studying and those at risk as they are one of the fundamental building blocks of our future, and to evaluate the impact of this on their healthy lifestyle behaviors (HLB).

Material and Method

Type of Study

The research is a cross-sectional study

Location and Characteristics of the Study

The research was conducted in vocational training centers in the central district of Konya, Turkey.

Population and Sample of the Study

The population of the study consists of 8,385 children attending the relevant centers. The sample size of the study was determined to be 294 using the known population sample size method with a 95% confidence interval and a 5% margin of error, and the formula used was $n = (Nt^2\sigma)/(d^2(N-1) + t^2\sigma)$ (18). The standard deviation (σ) for the population was based on Yurdakul's study (3). Considering missing data, the sample size was increased by 20%, with a target of reaching 343 children. In the sample selection, the non-probability sampling method was used.

Inclusion criteria for participants

Being enrolled in the relevant centers, not having visual, cognitive, or mental impairments that would prevent understanding the questions, and having consent for participation from both the individual and their parent.

Exclusion criteria for participants

Children with diagnosed or reported psychological issues (such as depression, suicidal tendencies, etc.) and students not completing the questionnaire properly were excluded from the study.

Data collection techniques and tools

The Personal Information Form

This form, developed by the researchers from the literature, consists of 16 questions covering the individual's identifying characteristics.

The Health Literacy Scale for School-Aged Children

Developed by Paakkari and colleagues (2016), with Turkish validity and reliability conducted by Haney (2018). The scale consists of 10 items and 5 categories: theoretical knowledge, practical knowledge, critical thinking, self-awareness, and citizenship. The scale scores are categorized as low (10-25 points), medium (26-35 points), and high (36-40 points). Haney (2018) found the Cronbach's alpha value to be 0.77 by Haney (2018) (19). In this study, the Cronbach's alpha value is 0.87.

The Health Lifestyle Behavior Scale II

Developed by Walker et al. (1987) and revised in 1996, the scale's Turkish validity and reliability were examined by Bahar et al. (2008). The scale consists of 52 items

and 6 subdimensions: spiritual development, health responsibility, physical activity, nutrition, interpersonal relationships, and stress management. In the Turkish validity study, the Cronbach's Alpha value of the scale was found to be 0.92 (20). In this study, the Cronbach's alpha value is also 0.92.

Data Collection

The data for the research were collected through face-to-face interviews. Before the study, a pre-test was conducted with 10 participants sharing the same characteristics as the sample to test the clarity of the questionnaire.

The ethical dimension of the research

Before starting the research, ethical approval (dated 27.02.2024, No. 01-2024/15) and institutional permission (dated 22.03.2024, No. 99371223) were obtained. Permission was also granted by the authors conducting the validity and reliability studies for the scales used in the study. Before completing the questionnaire, an informed consent form was sent to the participants' parents, and written consent was obtained. The research was conducted under the principles of the Helsinki Declaration.

Statistical Analysis

The data analysis was conducted using the SPSS (Statistical Package for Social Science) 22.0 software. The normality of the values was assessed based on skewness and kurtosis values within the range of -1 and +1 (21). Accordingly, the scores of the scales and subdimensions used in the study showed a normal distribution. To test the reliability of the measurement obtained from the scale, the internal consistency coefficient (Cronbach's Alpha) was calculated. The data were analyzed using descriptive (mean, standard deviation, frequency, and percentage) and analytical (one-way ANOVA, independent t-test, Spearman's Correlation) statistics. In comparisons where a significant difference was found between more than two groups, the Post Hoc Bonferroni test was used when the variances were equal, and the Post Hoc Games-Howell test was used when the variances were unequal. Factors predicting the total score of the HLBS were tested using regression analysis. In the regression analyses, autocorrelation was evaluated with Durbin-Watson, and multicollinearity was assessed using Tolerance and VIF. A statistical significance level of $p < 0.05$ was accepted.

Results

A total of 343 students currently attending vocational training centers participated in our study, of whom 99.4% were male (Table 1).

Table 1. Distribution of students participating in the study according to demographic findings (n=343)

Variables	
Gender (n/%)	
Female	2 (0.6)
Male	341 (99.4)
Grade (n/%)	
9th Grade	115 (33.5)
10th Grade	154 (44.9)
11th Grade	50 (14.6)
12th Grade	24 (7.0)
Income Status (n/%)	
Income less than expenses	76 (22.2)
Income equal to expenses	154 (44.9)
Income greater than expenses	113 (32.9)
Maternal Educational Status (n/%):	
Illiterate	15 (4.4)
Primary School	217 (63.3.)
High School	94 (27.4)
University and above	17 (5.0)
Paternal Educational Status (n/%)	
Illiterate	13 (3.8)
Primary School	175 (51.0)
High School	126 (36.7)
University and above	29 (8.5)
Presence of harmful health habits (n/%)	
Yes	103 (30.0)
No	240 (70.0)
Presence of a smoker family member (n/%)	
Yes	257 (74.9)
No	86 (25.1)
Presence of a healthcare family member (n/%)	
Yes	31 (9.0)
No	312 (91.0)
Health Problems (n/%)	
Yes	39 (11.4)
No	304 (88.6)
Regularly used medication (n/%)	
Yes	32 (9.3)
No	311 (90.7)
Regular weighing (n/%)	
Yes	98 (28.6)
No	245 (71.4)
Regular nutrition (n/%)	
Yes	155 (45.2)
No	188 (54.8)
Education on healthy living (n/%)	
Yes	94 (27.4)
No	249 (72.6)

Age (years) (Min-Max) (mean±SD)	(14-18) (15.82±1.16)
BMI (Min-Max)(mean±SD)	(13-47) (22.51±4.27)

BMI: Body mass index, SD: Standard deviation

In our study, two scales were used. 6.4% of the participants had a high level of HLS scores. The mean HLBS score is 119.10±23.85 (Table 2).

Table 2. Distribution of HLS and HLBS score averages for school-age children (n=343).

	n	%
HLS		
Low Level	137	39.9
Medium Level	184	53.6
High Level	22	6.4
	Min-Max	**Mean±SD**
HLBS		
Spiritual Development	9.00-36.00	23.65±5.70
Health Responsibility	9.00-34.00	18.25±5.04
Physical Activity	8.00-32.00	17.50±5.56
Nutrition	9.00-34.00	19.51±4.81
Interpersonal Relationships	9.00-36.00	22.22±4.92
Stress Management	8.00-31.00	17.96±4.50
Total	58.00-193.00	**119.10±23.85**

HLS: Health Literacy Scale, HLBS: Health Lifestyle Behavior Scale, SD: Standard deviation

The scores obtained from both scales according to the descriptive characteristics of the participants are presented in Table 3. Accordingly, there is a significant difference in HLS between 10th and 12th graders (p=0.013), between those with low and high-income status (HLS p=0.029; HLBS p=0.001), between those weighing regularly and those who do not (HLS p=0.013; HLBS p<0.001), between those eating regularly and those who do not (HLS p=0.039; HLBS p<0.001), and between those receiving previous health education and those who did not (HLS p=0.009; HLBS p<0.001).

Table 3. Total HLS and HLBS scores by the descriptive characteristics of the participants.

Variables	HLS Mean±SD	HLBS Mean±SD
Grade[1]		
9th Grade (a,b)	25.98±6.28	118.28±24.84
10th Grade (a)	27.39±6.79	119.72±24.12
11th Grade (a,b)	26.61±7.09	117.76±21.61
12th Grade (b)	22.92±6.80	121.75±22.57
Test Value	3.463	0.229
p-Value	0.017	0.876
Income Status[1]		
Income < Expenses(a)	25.20±7.71	111.91±25.40
Income = Expenses (a,b)	26.21±6.44	118.95±22.25
Income > Expenses (b)	27.74±6.27	124.13±23.82
Test Value	3.541	6.156
p-Value	0.030	0.002
Maternal Education Status[1]		
Illiterate	25.40±8.04	124.33±18.62
Primary School	26.76±6.66	117.38±24.00
High School	25.80±6.85	121.85±24.49
University or Higher	27.76±5.92	121.18±21.78
Test Value	0.783	1.079
p-Value	0.504	0.358
Paternal Education Status[1]		
Illiterate	25.92±8.55	118.08±19.00
Primary School	26.41±6.99	119.14±24.38
High School	26.33±6.35	118.21±22.96
University or Higher	27.93±6.08	123.14±26.89
Test Value	0.502	0.342
p-Value	0.681	0.795
Presence of Health-Damaging Habits[2]		
Yes	26.53±7.00	117.26±20.45
No	26.47±6.64	119.88±25.16
Test Value	0.079	-0.933
p-Value	0.937	0.351
Presence of a smoker in the family [2]		
Yes	26.56±7.05	118.77±23.81
No	26.28±5.75	120.08±24.08
Test Value	0.370	-0.442
p-Value	0.712	0.659
Presence of a healthcare worker in the family [2]		
Yes	26.42±7.15	118.13±13.90
No	26.50±6.71	119.19±24.63
Test Value	-0.061	-0.372
p-Value	0.951	0.712
Health Problems [2]		
Yes	26.87±6.94	117.36±24.70
No	26.44±6,72	119.32±23.77
Test Value	0.376	-0.483
p-Value	0.707	0.630
Use of Regular Medication [2]		
Yes	25.31±6.12	119.88±23.89
No	26.61±6.80	119.02±23.88
Test Value	-1.038	0.194
p-Value	0.300	0.846
Regular Weighing [2]		
Yes	27.91±7.00	130.16±21.84
No	25.92±6.56	114.67±23.21
Test Value	2.484	5.679
p-Value	0.013	<0.001
Regular Nutrition [2]		
Yes	27.32±6.53	124.61±21.28
No	25.81±6.85	114.55±24.92
Test Value	2.072	3.969
p-value	0.039	<0.001
Health-Related Education [2]		

Yes	28.03±6.00	128.43±21.08
No	25.91±6,92	115.57±23.92
Test Value	2.627	4.580
p-Value	0.009	<0.001

HLS: Health Literacy Scale, HLBS: Healthy Lifestyle Behavior Scale, 1One-Way ANOVA, 2 Independent samples test, No significant difference between rows with the same subnote (p > 0.05). Statistically significant values (p < 0.05) are shown in

Behavior Scale scores, as well as higher mean scores for spiritual development, health responsibility, nutrition, interpersonal relationships, and stress management subscales compared to those with low health literacy (p<0.001) (Table 4).

Table 4. Comparison of the mean HLBS scores of adolescents by their HLS levels (One-Way ANOVA).

HLBS Subscales	n	Mean±SD	F	p
Spiritual Development*				
Low HLS (a)	137	22.02±5.41		
Moderate HLS (b)	184	24.31±5.42	15.031	<0.001
High HLS (c)	22	28.23±6.46		
Health Responsibility*				
Low HLS (a)	137	17.41±5.27		
Moderate HLS (a,b)	184	18.60±4.61	4.844	0.008
High HLS (b)	22	20.59±6.02		
Physical Activity*				
Low HLS (a)	137	16.45±5.49		
Moderate HLS (a)	184	17.75±5.30	10.025	<0.001
High HLS (b)	22	21.91±6.02		
Nutrition*				
Low HLS (a)	137	18.84±4.95		
Moderate HLS (a)	184	19.66±4.53	5.683	0.004
High HLS (b)	22	22.45±5.25		
Interpersonal Relationships€				
Low HLS (a)	137	20.37±4.92		
Moderate HLS (b)	184	23.08±4.17	24.231	<0.001
High HLS (c)	22	26.64±6.04		
Stress Management*				
Low HLS (a)	137	16.87±4.51		
Moderate HLS (b)	184	18.43±4.24	10.146	<0.001
High HLS (c)	22	20.86±4.70		
Total*				
Low HLS (a)	137	111.96±24.19		
Moderate HLS (b)	184	121.83±21.15	17.969	<0.001
High HLS (c)	22	140.68±26.24		

*Post Hoc Bonferroni; € Post Hoc Games-Howell, There is no significant difference between rows with the same superscript (p>0.05), HLS: Health Literacy Scale, HLBS: Healthy Lifestyle Behavior Scale, SD: Standard deviation

bold. SD: Standard deviation

Participants with high health literacy have higher total HLBS scores and scores for all subscales compared to those with moderate and low health literacy levels. Additionally, the total score, along with scores for spiritual development, interpersonal relationships, and stress management, increases as health literacy levels rise. Moreover, participants with moderate health literacy have significantly higher total Healthy Lifestyle

In the regression model established between the total HLBS score and HLS subscales, no autocorrelation was found (Durbin-Watson = 1.831), no multicollinearity issues were detected, and the standardized residuals

of the variables followed a normal distribution. The model explains 13.1% of the variation in the total HLS score ($F = 8.334$ (7); Adj. $R^2 = 0.131$; $p < 0.001$). When examining the significance level of the Beta coefficient, the Theoretical Knowledge subscale of HLS made a positive independent contribution to the model ($t = 8.617$; $p = 0.044$) (Table 5).

Table 5. The Effect of Health Literacy, BMI, and Age on Healthy Lifestyle Behaviors.

					95% CI for B		Collinearity Statistics	
	B	SE	Beta	t	Lower	Upper	Tolerance	VIF
(Constant)	72.845	8.454		8.617**	56.216	89.474		
HLS (Theoretical knowledge)	2.237	1.109	0.140	2.018*	0.056	4.419	0.528	1.895
HLS (Practical knowledge)	0.236	0.917	0.018	0.257	-1.567	2.039	0.522	1.916
HLS (Critical thinking)	1.819	1.017	0.125	1.790	-0.180	3.819	0.519	1.928
HLS (Self-awareness)	1.412	0.949	0.105	1.488	-0.455	3.279	0.510	1.960
HLS (Citizenship)	1.151	1.076	0.078	1.069	-0.967	3.268	0.477	2.099
Age	0.269	1.058	0.013	0.254	-1.813	2.351	0.961	1.041
BMI	0.430	0.289	0.077	1.489	-0.138	0.998	0.950	1.052

Linear Regression Analysis, **p<0.001, *p<0.05, BMI: Body mass index, CI: Confidence interval, HLS: Health Literacy Scale, HLBS: Healthy Lifestyle Behaviors Scale, SE: Standard error, VIF: Variance inflation factor

Discussion

In this study, it was found that a large proportion of students attending vocational education center schools had low or moderate HL levels, with only a small group having high HL. These results are consistent with previous studies showing that HL levels among young individuals are generally moderate and low (9,11). The low HL levels among vocational education center students may be related to factors such as the limited number of health-related courses in the curriculum, the lack of structured programs aimed at improving HL, and the restricted access to health information for students.

One of the aims of the study was to determine the HLB levels of children attending vocational education centers. Children's HLBS scores were generally at a moderate level. Specifically, higher scores were observed in the subdimensions of spiritual development and interpersonal relationships, while lower scores were found in the physical activity and stress management subdimensions. This suggests that children show stronger tendencies in social relationships and spiritual development, while they may need more support in engaging in regular physical activity and managing stress. Other studies in the literature similarly show that students exhibit moderate HLBS levels, with the lowest scores typically being in the physical activity subdimension (22-24). The low levels of physical activity may be related to factors such as insufficient movement-based activities in educational programs, increasing interest in digital technologies, lack of time, and limited physical space. Therefore, school-based interventions and awareness-raising programs are essential to help children develop physical activity habits.

In our study, it was determined that as the HL levels of children continueing their education while working increased, they exhibited HLBS at higher rates. Specifically, it was observed that an increase in HL levels not only, positively affected the overall HLBS score, but also significantly impacted subdimensions such as spiritual development, interpersonal relationships, and stress management. These findings suggest that HL is an important factor in supporting individuals to make informed health decisions and adopt a healthier lifestyle. Moreover, it was found that children who had received health-related education had higher HL levels and this was positively reflected in their HLBS. Particularly, children with high scores in the 'theoretical knowledge' subdimension of the HLS exhibited more HLB. These results indicate that health education contributes to children's health knowledge and awareness, helping them adopt healthier lifestyle habits. Our findings are consistent with Yurdakul's study, also showing that individuals with high HL levels scored higher in areas such as practical knowledge, theoretical knowledge, critical thinking, and citizenship, and paid more attention to their health (3). There are also many studies in the literature indicating that HL levels in adolescents positively affect their health behaviors (25-27). In this context, promoting educational programs aimed at increasing children's HL is particularly important, emerging as a necessity for

individuals continuing their education through work.

When the levels of HLS and HLBS were examined according to household income, it was found that students whose income exceeded their expenses had higher HLS levels and exhibited higher levels of HLBS compared to those with lower income. In a study conducted by Bulut and colleagues with vocational school students, no difference was found between income and HLB (28), but similar results were found in many other studies (24,29-31). Children from higher-income households may have easier access to the internet and technology, accelerating access to information. It is believed that this accelerated access to information increases the HL level and in parallel, the children's HLB (Health Literacy Behavior). Moreover, higher-income families tend to have more social connections and greater opportunities to participate in health-conscious communities, which may contribute to the children's development in terms of health.

The study revealed that individual health habits have a significant impact on children's HL and HLB, but some sociodemographic factors did not show the expected effects. In our study, children regularly weighed and had healthy eating habits had significantly higher HL and HLB scores. This finding suggests that monitoring one's health and maintaining conscious eating habits positively contribute to the process of acquiring health knowledge and adopting healthy lifestyle behaviors. Similarly, in the literature, it has been noted that regular weighing has a positive effect on health literacy (HL) and health-promoting behaviors in early adolescents (3). Similarly, the study by Coşkun and Karagöz shows that healthy eating supports HLB in adolescent children (23). On the other hand, no significant relationship was found between body mass index (BMI) and HLB. This result suggests that children's health behaviors are not directly linked to body weight and that multidimensional factors such as nutrition and physical activity need to be considered.

In our study, factors such as the parent's education level, the presence of a healthcare worker in the family, harmful habits, the presence of a smoker in the family, the presence of health problems, and the use of regular medication were not found to have a significant impact on children's HL and HLB. The literature contains studies that show the positive impact of parents' education level on children's HL and HLB (29,32,33), as well as research that indicates these factors do not show a clear effect (28,30,34). The study found that the presence of health problems did not affect healthy lifestyle behaviors. This finding is similar to those of previous studies (24,30,34). These results emphasize the importance of focusing on individual health habits in initiatives to increase HL. Programs that particularly encourage children to have regular health check-ups and support healthy eating habits can be an important strategy to enhance both health awareness and healthy lifestyle behaviors.

Conclusion and Recommendations

In our study, it was observed that the HL of vocational education center students continueing their education by working in various jobs was low to medium and the HLB was at a moderate level. It was determined that as the HL levels of the children increased, they showed a higher rate of HLB. It was determined that having received health education before, and having a high household income, were factors in the increase in HL and HLB levels among the children. In addition, the HL and HLB scores of the children who were weighed regularly and fed regularly were significantly higher than the others.

Children whose physical and psychological development was not completed are more prone to work accidents and occupational diseases. It is important to increase HL levels to reduce these risks. Children should be given regular HL training in simple language both in their workplaces and in the centers where they receive education. They should be made aware of occupational health and safety, and they should be taught the precautions to be taken against health risks. In addition, consultancy services should be provided by health experts in the workplace, and regular health checks should be carried out.

To help children adopt healthy lifestyle habits, time management skills should be taught to enable them to allocate time for work, education, and physical activity. For children with limited time, short and effective exercises should be recommended. Balanced nutrition and stress management techniques should be explained, and core values that strengthen their social and emotional health, such as empathy, fairness, love, and respect, should be taught. Communication skills (such as listening, self-expression, and body language) should also be developed.

For children from low-income backgrounds, internet access should be facilitated, allowing them to access

health information through digital resources and mobile applications. Creating videos on health topics and broadcasting them on television and digital platforms will help children access information and integrate it into their behaviors.

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