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The relationship between fathers' e-health literacy levels and pediatric fever management: A cross sectional study

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ABSTRACT

Aim: Pediatric nurses play a crucial role in promoting fathers' active involvement in managing pediatric fever by enhancing their health literacy behaviors. This study aimed to examine the relationship between fathers' e-health literacy levels and pediatric fever management.

Methods: This cross-sectional study was conducted with 155 fathers between February and April 2025. Data were collected using the Demographic Information Form, Parent Fever Management Scale, and *E*-Health Literacy Scale. Descriptive statistics (frequency, percentage, mean, and standard deviation), independent samples *t*-test, one-way analysis of variance, multivariate regression analysis, and correlation analysis were used for data collection. Statistical significance was set at $p < 0.05$.

Results: Fathers' mean scores were 30.32 ± 8.19 on the *E*-Health Literacy Scale and 33.78 ± 5.42 on the Parent Fever Management Scale. A statistically significant positive relationship was found between fathers' e-health literacy and fever management ($p < 0.05$). The variables related to fathers explained 25 % of the variance in e-health literacy and 42 % of the variance in fever management.

Conclusion: The study identified a significant relationship between e-health literacy and fever management. Raising fathers' awareness of accessing reliable health information sources and providing educational support can enhance both e-health literacy and fever management practices.

Practical implications: Considering the positive relationship between fathers' e-health literacy and fever management, pediatric nurses have a key responsibility to support fathers through training programs that enable them to obtain accurate and adequate information regarding fever management.

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Introduction

Fever is defined as an increase in body temperature above the normal range, regulated by the central nervous system (Bakalli et al., 2022). According to a resource published by the American Academy of Pediatrics, fever in children aged 1–5 years is defined as a body temperature exceeding 38 °C rectally, 37.8 °C orally, and 37.2 °C axillary (Schmitt Pediatric Care Advice, 2025). Fever, which can occur as a biological reflex or a physiological response indicative of various diseases, may lead to serious health problems in children if neglected (Celik et al., 2024). It is also an important symptom that alerts parents to unusual conditions in their child (Celik et al., 2024). For this reason, the presence of fever often causes anxiety in parents and represents one of the most common reasons for acute hospital visits (Wilson et al., 2019). It has been reported that the rate of emergency room visits due to fever in childhood ranges between 15 % and 70 %, (Gobekli & Guney, 2023), although most of these cases can be managed at home (Arias et al., 2022). Considering that most fevers do not require treatment, resolve spontaneously, and are typically caused by viral infections, it is essential for families to access accurate information sources on fever management and to apply the information appropriately (Castellano et al., 2020). A systematic review by Thompson et al. (2020) indicated that parents sought information about fever from healthcare professionals and expressed disappointment when sufficient information was not provided. Furthermore, studies have shown that parents actively use the internet to access health-related information (Eyuboglu, 2023) and often prefer online sources to learn about illness and health processes (Boon-itt, 2019). Therefore, it is crucial for parents to critically evaluate, selectively use, and correctly apply information obtained from the internet to avoid misguided interventions and potential negative outcomes for children's health. This stiation underscores the importance of adequate e-health literacy.

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E-health literacy is defined as the ability to access, understand, evaluate, and apply health information from electronic sources to address health problems (Norman & Skinner, 2006). A high level of e-health literacy can be a key determinant in recognizing normal temperature limits in children, identifying when to intervene, and deciding on appropriate treatment methods for fever, which is one of the most common health issues in childhood. However, the literature predominantly focuses on mothers in the context of childhood fever management. (Edepli Sert, 2021; Gobekli & Guney, 2023; Maras, 2022; Salman et al., 2022; Thompson et al., 2020). Studies on health literacy have generally targeted university students, women of reproductive age, and individuals with chronic diseases (Kim et al., 2023). Among studies involving parents, the majority have focused on mothers (Keles et al., 2024; Kucuk, 2025). Although childcare has traditionally been regarded as the mother's responsibility, changing family dynamics have made fathers' active involvement in health and illness processes increasingly important, both for sharing responsibilities within the family and for supporting children's healthy development. Research indicates that fathers' active participation in childcare positively affects not only children's physical development but also their cognitive development (Cabrera et al., 2018).

Conversely, studies have shown that fathers' health literacy levels are generally lower than those of mothers (Najminouri et al., 2025; Wynter et al., 2023). This discrepancy represents a significant gap in managing common childhood health issues. Low health literacy may hinder fathers' ability to accurately assess symptoms, access reliable digital health resources, and make appropriate intervention decisions (Cheng et al., 2016; Zaidman et al., 2023). Managing fever in childhood is a critical process that requires parents to make quick and informed decisions based on their health knowledge. Therefore, insufficient health and e-health literacy among fathers can lead to misjudgment of fever and inappropriate management, posing risks to children's health (Cheng et al., 2016).

In this context, the present study aims to address an important gap in the literature by examining the effect of fathers' e-health literacy levels on childhood fever management. To explore the relationship between fathers' e-health literacy levels and their approaches to pediatric fever management, this study sought to answer the following research questions:

1. What are fathers' levels of fever management?
2. What are fathers' e-health literacy levels?
3. Do fathers' e-health literacy levels affect their fever management?
4. To what extent do the factors affecting fathers' fever management and e-health literacy influence these two variables?

Methods

Design

This descriptive and cross-sectional study aimed to investigate the relationship between fathers' e-health literacy levels and pediatric fever management, as well as the factors influencing this relationship. The study was designed and planned to be reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for descriptive research (von Elm et al., 2007).

Setting, sample, and population

Data were collected between February and April 2025. The study was conducted with the fathers of children who presented to the pediatric emergency department and pediatric outpatient clinics of a hospital located in the Central Anatolia region of Turkey due to fever. The study population consisted of all fathers whose children were admitted to these units for fever during the data collection period. All fathers meeting the inclusion criteria were included in the study. A review of the literature revealed no study using the same sampling characteristic and all the measurement tools employed in the present study. Therefore, the sample size was determined using the medium effect size standardized by Cohen's d (Cohen, 1992). At a significance level of 0.05, with a statistical power of 0.95 and an effect size of 0.30, the required sample size was calculated to be 134 participants. During the 3-month data collection period, a total of 175 fathers presented to the pediatric emergency department and pediatric outpatient clinics with a child admitted for fever. Of these, 20 fathers were excluded based on the predetermined exclusion criteria. Consequently, 155 eligible fathers were included in the final sample. To determine participant eligibility and ensure that the sample accurately reflected the study's objectives, the following inclusion and exclusion criteria were applied:

Inclusion Criteria: (i) fathers of preschool-aged children who presented to the hospital due to fever, (ii) fathers with previous experience in managing fever, (iii) fathers without communication difficulties, (iii) fathers without mental disabilities, and (iv) fathers who voluntarily agreed to participate in the study.

Exclusion Criteria: (i) fathers who did not wish to participate in the study, and (ii) fathers who were illiterate.

Before commencing this study, a pilot study was conducted with 10 fathers not included in the final sample. No negative feedback was received regarding the comprehensibility of the questionnaire and scale items.

Data collection tools

Introductory Form: This form, developed by researchers, includes 11 questions regarding fathers' demographic characteristics, experiences with fever, and internet use. The questions address the following variables: age, employment status, education level, position of employment, income status, number of children, average daily time spent with children, possession of a thermometer at home, knowledge of how to use a thermometer, possession of thermometer usage instructions, amount of syrup administered to a child with fever, and frequency of fever measurement (Edepli Sert, 2021; Gobekli & Guney, 2023; Green et al., 2021).

Parental Fever Management Scale (PFMS); The scale was developed by Walsh and colleagues and adapted for cultural validity by Altun and colleagues. The scale consists of 8 items rated on a 5-point Likert scale. The total score ranges from 8 to 40, with higher scores indicating higher levels of fever management (Altun et al., 2011; Walsh et al., 2008). It is stated that the scale can be applied to all literate individuals. The internal consistency coefficient of the original scale is 0.80. In this study, it was found to be 0.84.

E-Health Literacy Scale (E-HL); The scale was developed by Norman and Skinner and adapted to Turkish culture by Coskun and Bebis. The scale consists of 8 items rated on a 5-point Likert scale, with total scores ranging from 8 to 40. Higher scores indicate higher levels of e-health literacy (Coskun & Bebis, 2015; Norman & Skinner, 2006). It is stated that the scale can be applied to all literate individuals. The internal consistency coefficient of the original scale was reported as 0.78. In this study, it was found to be 0.96.

Data collection

Data for this study were collected at a hospital in Central Anatolia between February and April 2025. The data collection period coincided with the winter and spring seasons, during which upper respiratory tract infections are common. Data were obtained through face-to-face interviews conducted by the researcher with fathers who voluntarily agreed to participate and met the inclusion criteria. No intervention or influence was exerted on the fathers while they were completing the forms. The data collection process took approximately 5–7 min per participant.

Statistical analyses

Data were analyzed using the SPSS software package. Descriptive statistics were presented as frequencies, percentages, means, and standard deviations. To compare the mean scores of independent variables, the independent samples *t*-test was used for two-group comparisons, and one-way analysis of variance (ANOVA) with post hoc Tukey analysis was applied when comparing more than two groups, taking into account the number of groups, sample size, and normal distribution. Multivariate regression analysis (Enter model) was performed to evaluate the combined effects of independent variables on scale scores. The relationship between the two scale scores was analyzed using Pearson's correlation coefficient. The level of statistical significance was set at $p < 0.05$.

Ethical considerations

After obtaining ethics committee approval (Nigde Omer Halisdemir University Rectorate Ethics Committee decision 03.02.2025, 2025/03–56) and official institutional permissions, fathers who met the inclusion criteria were informed about the purpose of the study and their written informed consent was obtained. The study was conducted in accordance with the principles of the Declaration of Helsinki.

Results

This study, which examined fathers' fever management and e-health literacy levels in childhood, found that the majority of fathers had a bachelor's degree or higher, were over 35, were employed, and had equal income and expenses. Nearly half had two children and spent an average of 2–4 h a day with them. The vast majority of fathers knew how to use a thermometer but reported not having one at home. 43.2 % of fathers reported giving their feverish children syrup and taking their children's temperatures every 15 min, using online research or brochures (Table 1).

A significant difference was found between fathers' education levels and fever management ($p < 0.01$), with fathers holding a bachelor's degree or higher achieving higher scale scores than those with primary, secondary, or high school education. The study also revealed a significant difference between fathers' occupations and fever management. Specifically, civil servant fathers had significantly higher fever management scale scores than those in other occupational groups ($p < 0.05$). Furthermore, a significant difference was observed between the average daily time fathers spent with their children and fever management, indicating that time spent with children and changes in the child's hourly growth rate were influential factors in fever management ($p < 0.05$). A significant difference was also found between fever management scale scores and both the presence of a thermometer at home and fathers' knowledge of how to use it ($p < 0.01$). Among the methods used to determine the amount of syrup administered to children with fever, a significant relationship was found between "reading the package insert and researching online" ($p < 0.01$). Fathers who reported reading the patient information leaflet, conducting online research, and consulting healthcare professionals before administering syrup had higher scale scores than those who reported consistently administering one scoop of syrup. A significant correlation was identified between fever management scale scores and the frequency of temperature measurement. Fathers who measured their children's temperature every 15 or 30 min had higher scale scores than those who measured it every 60 min ($p < 0.001$) (Table 1).

The study also found a significant difference between fathers' educational status and the *E*-Health Literacy (E-HL) Scale ($p < 0.05$), with fathers holding a high school education scoring higher than those with primary, secondary, university, or postgraduate education. Additionally, a significant difference was found between fathers' occupations and E-HL scale scores, with civil servant fathers scoring higher than those in other occupational groups ($p < 0.05$). A significant difference was also observed between the E-HL scale and thermometer knowledge ($p < 0.01$). Moreover, a significant relationship was found between E-HL scale scores and the frequency of temperature measurement, with fathers who measured their children's temperature every 15 or 30 min scoring higher than those who measured it every 60 min ($p < 0.05$) (Table 1).

Examination of Table 2 revealed a positive, moderate correlation (r: 0.498) and a highly significant relationship ($p < 0.001$) between fathers' fever management scale scores and their total E-HL scale scores. As fathers' fever management scores increased, their E-HL scale scores also increased (Table 2).

Variables related to fathers explained 42 % of the variance in fever management. According to the regression coefficient-test results, the factors identified as significant predictors based on the standardized regression coefficient (β) were home thermometer use, amount of syrup administered, frequency of temperature measurement, and e-health literacy level ($p < 0.001$, more influential). Father-related variables accounted for 25 % of the variance in e-health literacy levels. Based on the regression coefficient-test, the variables found to significantly influence e-health literacy were number of children and fever management scores ($p < 0.001$, more influential) (Table 3).

Discussion

This study revealed a positive relationship between fathers' e-health literacy levels and their fever management practices ($p < 0.05$). When fever management was examined in relation to demographic characteristics, it was found that fathers' fever management improved as their education level increased. Similarly, Yigit and Sarialioglu (2022) reported that individuals with higher education demonstrated better fever management (Yigit & Sarialioglu, 2022). Another study found that traditional fever-reducing practices decreased as education levels increased (Eliacik et al., 2012). Garcia Puga et al. (2011) stated that parents with higher education levels exhibit more accurate and consistent temperature management following health education, while Edepli Sert (2021) reported that fathers with higher levels of education can more accurately read temperatures on a thermometer (Eliacik et al., 2012; Garcia Puga et al., 2011). Furthermore, Zengin Aydin (2022) emphasized that education level is a significant factor influencing knowledge, attitudes, and practices in fever management (Zengin Aydin, 2022). The findings of the present study are consistent with these results. This study also revealed a significant relationship between fathers' occupational status and their fever management skills. Fathers who were civil servants demonstrated better fever management than those working as laborers or in private sector. Similarly, Maras (2022) reported that civil servants exhibited superior fever management compared to other occupational groups (Maras, 2022). A father's employment status is an important variable influencing not only the family's economic situation but also the child's health and caregiving behaviors.

The higher rate of civil service among fathers with higher education levels may be associated with regular working hours, the protection of social rights, and job security, all of which can reduce stress and anxiety. Thus, fathers who experience less work-related stress may fulfill their parenting roles more effectively, leading to more attentive fever monitoring. Yigit and Sarialioglu (2022) also found that the region of residence affects fever management, with fathers living in city centers demonstrating better fever management (Yigit & Sarialioglu, 2022). Since most civil servants work in city centers, this finding indirectly supports the present study's results. The study further identified a significant relationship between the time fathers spent with their children and their fever management practices. Fathers who spent five hours or more daily with their children demonstrated better fever management. This finding may be explained by the opportunity for more immediate observation of fever, perceived as a health threat, allowing for

Table 1
Comparison of Fathers' Fever Management (PFMS) and *E*-Health Literacy (E-HL) Scores According to Demographic Characteristics ($n = 155$).

Demographic variables	n	%	PFMS	E-HL
Age		(100)	**X ± SD**	**X ± SD**
<26	15	9.7	36.13 ± 3.09	34.00 ± 5.73
27–34	34	21.9	34.05 ± 5.45	30.58 ± 8.09
>35	106	68.4	33.35 ± 5.62	29.72 ± 8.44
F			1.793	1.82
P			0.170	0.16
Employment status				
Employed	137	88.4	33.95 ± 5.49	30.54 ± 8.34
Unemployed	18	11.6	32.44 ± 4.84	28.72 ± 6.98
t			1.112	0.884
p			0.268	0.69
Education level				
Primary education a	28	18.1	30.64 ± 9.05	26.64 ± 9.08
High School b	26	16.8	34.26 ± 4.07	31.57 ± 7.46
University and above c	101	65.1	34.52 ± 3.96	31.02 ± 7.90
F			6.115	3.622
P			**<0.01***	**0.02***
			b,c > a	**c > a,b**
Position of employment				
Worker/Freelancer a	51	32.9	32.15 ± 7.25	28.43 ± 7.92
Private sector b	45	29.0	34.15 ± 4.57	30.02 ± 8.70
Civil servant c	59	38.1	34.89 ± 3.64	32.20 ± 7.74
F			3.772	3.019
T			**0.02***	0.05
			c > a,b	
Income Status				
Income less than expenses	31	20.0	34.16 ± 6.55	31.25 ± 9.05
Income equal to expenses	83	53.5	33.87 ± 5.38	29.55 ± 8.08
Income more than expenses	41	26.5	33.29 ± 4.62	31.19 ± 7.77
F			0.253	1.337
P			0.77	0.26
Number of children				
1	48	31.0	34.77 ± 5.35	32.52 ± 7.68
2	64	41.3	33.64 ± 4.63	29.53 ± 8.13
>3	43	27.7	32.88 ± 6.46	29.06 ± 8.53
F			1.415	2.579
P			0.24	0.07
Average time spent with children per day				
<1 h a	22	14.2	31.40 ± 6.93	27.13 ± 8.91
2–4 h b	83	53.5	33.56 ± 5.89	30.55 ± 8.71
>5 h c	50	32.3	35.18 ± 3.04	31.36 ± 6.65
F			3.975	2.127
P			**0.02***	0.12
Thermometer at home				
Yes	19	12.3	33.21 ± 8.03	29.00 ± 9.02
No	136	87.7	33.86 ± 4.99	30.51 ± 8.09
t			0.488	0.452
p			**0.01***	0.75
Knowledge of thermometer use				
Yes	146	94.2	34.21 ± 4.54	30.78 ± 7.90
No	9	5.8	26.66 ± 11.51	22.88 ± 9.68
t			4.272	2.871
p			**0.01***	**0.01***
Amount of syrup given to a child with fever				
I always give 5 ml a	57	36.8	32.07 ± 6.66	29.75 ± 8.04
I read the prescription and search on the Internet b	67	43.2	34.71 ± 4.42	31.41 ± 8.04
I consult a health professional c	31	20.0	34.90 ± 4.04	29.03 ± 8.75
F			4.705	1.121
P			**0.01***	0.32
			b,c > a	
Temperature measurement frequency				
Every 15 min a	79	51.0	35.51 ± 3.56	31.10 ± 7.72
Every 30 min b	48	31.0	33.56 ± 4.31	31.16 ± 7.65
Every 60 min c	28	18.0	29.25 ± 8.28	26.71 ± 9.60
F			12.860	3.430
P			**<0.001***	**0.03***
			a,b > c	**a,b > c**

n: Number, %: Percentage, X ± SD: Mean ± Standard Deviation, t: Independent Sample T Test, F: One-way ANOVA.
PFMS: Parental Fever Management Scale, E-HL: E-Health Literacy, *: $p < 0.05$.

earlier intervention and continuous evaluation of the treatment's effectiveness.

The study also found a significant relationship between the absence of a thermometer at home and better fever management. Agrawal et al. (2017) reported that 85 % of parents measure their child's temperature by touch (Agrawal et al., 2017). This subjective assessment may be due to the lack of a thermometer at home. However, Salman et al. (2022) noted that frequent temperature measurements with a thermometer

Table 2
Mean scores of the scales and their relationships.

Scales Correlations	PFMS Total Score (X ± SD) (min-max) (33.78 ± 5.42) (9.00–40.00)	
	r	p
E-HL Total Score (X ± SD) (Min-Max) (30.32 ± 8.19) (8.00–40.00)	0.498	**<0.001***

X ± SD: Mean ± Standard Deviation, r: Correlation, Min: Minimum, Max: Maximum, p < 0.05, PFMS: Parental Fever Management Scale, E-HL: E-Health Literacy, *p < 0.05.

can increase family anxiety by heightening concern about fever (Salman et al., 2022). Consequently, excessive and uncontrolled use of antipyretics or over-the-counter antibiotics may occur (Purssell & Collin, 2016). Fathers who monitored fever without a thermometer may have engaged in closer observation and more timely interventions.

Finally, a significant relationship was found between the frequency of temperature measurement and fever management. Fathers who measured their child's fever every 15 or 30 min exhibited better fever management than those who measured it every 60 min. This suggests that more frequent monitoring following the onset of fever allows for earlier and more appropriate interventions, as well as a quicker response in seeking medical care when necessary. It was determined that there is a significant relationship between fathers' knowledge of thermometer use and their fever management skills, with fathers who know how to use a thermometer managing fever more effectively. The finding that fathers with a higher education levels manage fever correctly may be attributed to their greater knowledge and active use of thermometers. A significant relationship was also found between reading medication leaflets, conducting online research, consulting healthcare professionals, and fever management. Fathers who engaged in these behaviors demonstrated better fever management. Supporting this finding, Ulutas and Simsek (2018) reported that parents obtain information on fever management from both the internet and healthcare professionals, while Bayik-Temel et al. (2016) found that parents rely on pediatricians, nurses, and online sources for such information (Bayik-Temel et al., 2016; Ulutas & Simsek, 2018). This study also revealed a significant relationship between fathers' education level and e-health literacy, with high school graduate fathers demonstrating higher e-health literacy levels. Oksel et al. (2024) emphasized that families with higher education levels generally have greater health literacy. Contrary to the literature, however, the present study found that high school graduate fathers exhibited high e-health literacy (Oksel et al., 2024). This may be explained by fathers' adequate and effective use of technology and their residence in regions where technology use is both necessary and widespread. A significant relationship was found between knowledge of thermometer use and e-health literacy, indicating that fathers who know how to use a thermometer have higher e-health literacy levels. Kurt et al. (2024) reported a direct relationship between health literacy and practical health knowledge, showing that parents with higher health literacy demonstrate better fever management practices for their children (Kurt et al., 2024). Similarly, Tavan et al. (2022) found that simulation-based training significantly improved fever management among parents and recommended expanding such educational interventions (Tavan et al., 2022). Furthermore, the study identified a significant relationship between the frequency of measuring a child's temperature and e-health literacy. Fathers who measured their child's temperature every 15 or 30 min had higher e-health literacy scores than those who measured it every 60 min. This finding suggests that higher e-health literacy encourages more proactive and attantive health behaviors. Supporting this, Kim et al. (2023) stated that health literacy plays a crucial role in acquiring health-related information and promoting positive behavioral change (Kim et al., 2023). Additionally, it is thought that mothers can positively contribute to their spouses' demographic characteristics, and therefore fathers can also contribute to the development of e-health literacy behavior.

Recommendations or implications for practice

Pediatric nurses play a crucial role in guiding fathers in the management of childhood fever. They should support not only mothers but also fathers in enhancing their knowledge and awareness of fever and its management, directing them toward reliable information sources, and helping them use technology effectively. Training programs should be organized to strengthen fathers' e-health literacy and improve their practical skills in pediatric fever management. Such initiatives are expected to yield positive outcomes that directly enhance children's health. Moreover, pediatric nurses should regularly update their theoretical and practical knowledge regarding fever management and e-health literacy and incorporate this knowledge into parent education programs. This approach will contribute to more effective and successful care and treatment processes for pediatric patients.

Implications for future research

E-health literacy enables fathers to make more informed and effective decisions regarding their children's health. However, the way fathers approach these decisions may vary depending on the child's age. Future research should therefore compare the relationship between e-health literacy and fever management among fathers of infants and young children with that of fathers of older children, and also examine differences between fathers and mothers. Such comparative studies

Table 3
Regression analysis of variables affecting scale scores (n = 155).

		PFMS				E-HL			
		β	*95 %CI*	*zβ*	*p*	*β*	*95 %CI*	*zβ*	*p*
Constant		27.14	(23.01–31.27)		0.000	7.70	(−0.42–15.82)		0.06
Number of children		–	–	–	–	−1.06	(−2.55;−0.43)	−0.229	**0.04**
Knowing how to use a thermometer		3.46	(0.480–6.44)	0.150	**0.023**	–	–	–	–
Amount of syrup given to a child with fever		−2.13	(−3.53;−0.72)	−0.190	**0.003**	–	–	–	–
Temperature measurement frequency		−2.31	(−3.19;−1.42)	−0.325	**<0.001**	–	–	–	–
E-HL		0.26	(0.18–0.35)	0.399	**<0.001**	–	–	–	–
PSFM		–	–	–	–	0.73	(0.52–0.94)	0.484	**<0.001**
Model Significance	***F***	28.014				26.360			
	p	**<0.001**				**<0.001**			
	R	0.654				0.507			
	R²	0.428				0.258			

Dependent Variables: PFMS, E-HL; PFMS: Parental Fever Management Scale, E-HL: E-Health Literacy, *p < 0.05, β: Regression coefficient, zβ: Standardized regression coefficient, F: Regression test value, R^2: R-Squared, R: Stated rate, 95 %CI: 95 %Confidence interval.

may reveal age- and gender-based variations in e-health literacy and fever management behaviors. E-health literacy enables fathers to make more informed and effective decisions regarding their children's health. However, fathers' decision-making processes do not occur in isolation; mothers often play a central role in caregiving, and parental decisions are typically shaped within the family unit. Therefore, future research should not only compare the relationship between e-health literacy and fever management among fathers of infants, young children, and older children, but also include mothers in these analyses. Examining parent-child dynamics will provide a more comprehensive understanding of how parental e-health literacy interacts with shared caregiving practices, which aligns with pediatric nursing's holistic family-centered perspective.

Limitations

The limitation of this study to fathers is a limitation because it is anticipated that mothers could also make a positive contribution to their partners' demographic characteristics, e-health literacy behavior, and fever management skills. Additionally, it was conducted at a single center with a relatively small sample size, which may also be considered a limitation.

Conclusion

Fathers' knowledge and skills in fever management should be strengthened through continuous training provided by healthcare professionals and supported by social media platforms. These training sessions should cover essential topics such as proper thermometer use, accurate fever measurement techniques, reference temperature ranges, correct medication administration methods, dosage and timing, and situations requiring medical intervention. Childcare should not be viewed solely as the mother's responsibility; instead, the family should be approached holistically. Social awareness can be enhanced by developing interactive platforms featuring simulation-based or demonstration-based educational materials on topics such as thermometer use, fever measurement, reference values, fever management, and access to reliable health information.

CRediT authorship contribution statement

Hilal Kurt Sezer: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Funda Gurbuz:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Software, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis.

Patient consent statement

Informed consent was written and verbal by all fathers involved in the study.

Ethics approval statement

Nigde Omer Halisdemir University Rectorate Ethics Committee decision 03.02.2025, 2025/03–56), written approval was obtained from the chief physician of the hospital where the study was conducted.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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