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Influential Factors in Teachers' Health Education Readiness: A Comparative Study

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Abstract

Background: As per the 2022 report from Diyala's Directorate of Education in Iraq, 103 elementary schools are operational, catering to the educational needs of approximately 35,000 children on a daily basis. The academic staff, comprising of teachers and administrators across these schools, amounts to a total of 2,944 individuals.

Aims: To compare the differences in Cons, Pros, Self-Efficacy, beliefs, and practices for delivering health education.

Methods: A descriptive correlational predictive design was used to guide this study. The study was conducted in 103 elementary schools. The study included a simple random sample of 355 elementary school administrators and teachers. The study instrument includes participants' sociodemographic characteristics, the Elementary Health Education District Assessment Tool. Current Delivery, Stages of Change, Decisional Balance (Pros, Cons), Self-Efficacy, beliefs, and Practices were among the scales and subscales used. Data were collected using a self-reported method. Data were analyzed using the statistical package for social science, version 27.

Results: The study results revealed that more than a quarter are in the Maintenance Stage of Change, followed by those who are in the Action Stage of Change, those who are in the Contemplation Stage of Change, those who are in the Preparation Stage of Change, and those who are in the Precontemplation Stage of Change. The study results display that there is a statistically significant difference in the Self-Efficacy for delivering health education between gender groups.

Conclusion: The researchers concluded that male teachers are more inclined to use elementary health education than their female counterparts. Teachers who reported that they did not participate in such courses experience greater Cons of using elementary health education. Contrarily, teachers who reported that they participated in such courses enjoy greater Pros of using elementary health education.

Keywords: *self-efficacy, professional experiences, personal beliefs, health education.*

Introduction

As per the 2022 report from Diyala's Directorate of Education in Iraq, 103 elementary schools are operational, catering to the educational needs of approximately 35,000 children on a daily basis. The academic staff, comprising of teachers and administrators across these schools, amounts to a total of 2,944 individuals. Health education is a collection of carefully thought-out learning opportunities intended to assist people and communities improve their health by enhancing knowledge or changing attitudes [1].

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Assert that the approach is grounded in robust theory, and it allows students to acquire the knowledge and skills necessary for making informed health-related decisions [2]. Health practices and academic success are inextricably linked and have far-reaching effects on children, adults, and society as a whole [3]. Health outcomes have a substantial impact on educational attainment, absenteeism, accomplishment, and graduation rates, which ultimately improve quality of life, lengthen healthy life spans, and break the cycle of poverty [4]. For example, violence, tobacco and alcohol use, physical activity, unhealthy diet, and sexual behavior's have a significant inverse correlation with academic achievement. Even poor nutrition, hunger, and fears of safety are health factors integrally related to education [5]. An increase in the percentage of primary schools offering cumulative health education training is recommended by Healthy People 2020 (2018).

Education gives students the capacity to change their health behaviors, and it's associated with better access to high-quality healthcare and higher incomes [6]. The viability of healthcare, health insurance, economic stability, and democracy are all threatened by inconsistencies in health education [7]. The key to providing pupils with high-quality health education is classroom teachers [8]. At the elementary school level, health education is essential, and primary teachers are often responsible for imparting this knowledge to their children [9].

Kindergarten through eighth-grade students must receive health education, which must be taught by instructors with the appropriate credentials [10]. Additionally, according to the recommendations, students in first through sixth grades should get 60 minutes per week of health teaching which is separate from physical education [10]. According to the Alabama Course of Study (2009), there are no set time allotments for any subject areas in kindergarten, including health. The elementary school setting presents an opportunity to affect students' health. However, studies show that basic health instruction is frequently skipped or given carelessly.

Methods

The study employed a descriptive predictive correlational design and was executed at primary schools in the Diyala Governorate, Baquba county, situated northeast of Baghdad City. Authorization for the research was granted by the Diyala Directorate of Education. The study posed no potential harm to its participants. Participants were given informed consent forms accompanied by an introduction to the Elementary Health Education District Assessment Tool (EHE-DAT).

A convenient sample of 355 primary school teachers and administrators participated in the study. The sample size was derived from the total population of 2944, with a 95% confidence level, a margin of error at 5%, and a response distribution at 50%, resulting in an effective sample size of 355. On average, the teachers had approximately 15.72 ± 10.3 years of teaching experience. Participants were recruited based on their status as elementary school educators, regardless of gender.

The study utilized the Elementary Health Education District Assessment Tool (EHE-DAT), which evaluated Current Delivery, Stages of Change, Decisional Balance (Pros, Cons), Self-Efficacy, beliefs, and practices. The tool's validity and reliability were ascertained via a mixed-method examination, with all scales and subscales demonstrating strong internal consistency [11].

Stages of Change Scale

The Stages of Change (SOC) represent an individual's willingness or plan to act [12]. According to Prochaska & DiClemente (1982), the behavior change process involves transition through five distinct stages. The study aimed to evaluate the pros and cons of implementing EHE.

The Decisional Balance was assessed using the third section of the EHE-DAT. Respondents rated each item based on its significance using a five-point Likert scale.

Self-Efficacy In the context of this study, Self-Efficacy refers to confidence in one's ability to effectively deliver EHE under specific circumstances [13].

Preliminary Study A preliminary study was performed among 40 teachers in January 2023 to validate item readability and the time required to complete the study instrument. The respondents of the pilot study were not included in the final study sample.

Data Collection Data was gathered during faculty meetings held in the middle of the academic year at the selected schools. The data collection took place between January 10 and February 15, 2023. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) for Windows, version 27.

Ethical Considerations

Ethical clearance was obtained from the College of Nursing at the University of Baghdad. The purpose of the study was discussed with the administrators of the selected schools. Participants were assured of confidentiality and secure data handling during and after the study.

Results

Table 1. Participants' sociodemographic characteristics (N = 355)

Variable	Frequency	Percent
Age (Years)		
25-34	78	22.0
35-44	152	42.8
45-54	98	27.6
55-63	27	7.6
Mean (SD): 41.19 ± 8.37		
Gender		
Male	113	31.8
Female	242	68.2
Educational Qualification		
Diploma	139	39.2
Bachelor's degree	200	56.3
High diploma	5	1.4
Master's degree	9	2.5
Doctoral degree	2	0.6

The study results reveal that the mean age is 41.19 ± 8.37, more than two-third age 35-44 years (n = 200; 42.8%), followed by those who age 45-54-years (n = 98; 27.6%), those who age 25-34-years (n = 78; 22.0%), and those who age 55-63-years (n = 27; 7.6%). Concerning the gender, most are females (n = 242; 68.2%) compared to males (n = 113; 31.8%). Regarding the educational qualifications, more than a half hold a bachelor's degree (n = 200; 56.3%), followed by those who hold a diploma degree (n = 139; 39.2%), those who hold a master's degree (n = 9; 2.5%), those who hold a high diploma degree (n = 5; 1.4%), and those who hold a doctoral degree (n = 2; 0.6%).

Table 2. Participants' distribution according to the Stages of Change (N = 355)

Stage	Frequency	Percent
Precontemplation	54	15.2
Contemplation	68	19.2
Preparation	56	15.8
Action	76	21.4
Maintenance	101	28.5

The study results reveal more than a quarter are in the Maintenance Stage of Change (n = 101; 28.5%), followed by those who are in the Action Stage of Change (n = 76; 21.4%), those who are in the Contemplation Stage of Change (n = 68; 19.2%), those who are in the Preparation Stage of Change (n = 56; 15.8%), and those who are in the Precontemplation Stage of Change (n = 54; 15.2%).

Table 3. Stepwise regression model for predicting Self-Efficacy for delivering health education

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.469	40.249		.335	.744
	Age	.759	.884	.259	.858	.407
	Years in Teaching	-.281	.594	-.146	-.473	.645
	Years in Current Position	1.087	1.278	.253	.850	.412
2	(Constant)	-55.318	44.557		-1.242	.250
	Age	.932	.637	.318	1.462	.182
	Years in Teaching	-.071	.407	-.037	-.175	.865
	Years in Current Position	-.161	.896	-.037	-.179	.862
	Cons	1.112	.609	.527	1.827	.105
	Pros	.886	.535	.505	1.656	.136
	Beliefs	.078	.850	.034	.092	.929
	Practices	-.052	2.592	-.005	-.020	.984

a. Dependent Variable: Self-Efficacy

The regression model reveals that none of the age, years in teaching, years in the current position, Pros, Cons, beliefs, and practices predicted the Self-Efficacy for delivering health education.

Table 4. Gender-wise differences in the Cons, Pros, Self-Efficacy, beliefs, and practices for delivering health education

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Self-Efficacy Interval of the Difference	
									Lower	Upper
Cons	Equal variances assumed	.000	.985	.393	353	.694	.29284	.74498	-1.17232	1.75800
	Equal variances not assumed			.388	212.594	.698	.29284	.75378	-1.19300	1.77868
Pros	Equal variances assumed	3.470	.063	1.438	353	.151	1.14949	.79957	-.42302	2.72201
	Equal variances not assumed			1.361	192.102	.175	1.14949	.84439	-.51597	2.81495
Self-Efficacy	Equal variances assumed	3.992	.046	3.565	353	.000	5.49071	1.54019	2.46160	8.51982
	Equal variances not assumed			3.435	200.065	.001	5.49071	1.59831	2.33902	8.64240
Beliefs	Equal variances assumed	4.046	.045	1.567	353	.118	1.24380	.79372	-.31721	2.80481
	Equal variances not assumed			1.503	197.906	.134	1.24380	.82748	-.38801	2.87562
Practices	Equal variances assumed	1.760	.185	.075	353	.940	.01408	.18720	-.35409	.38225
	Equal variances not assumed			.075	214.118	.941	.01408	.18886	-.35819	.38635

df = Degree of freedom, F = Freedom; Sig.: Significance; t: T-statistics

The study results display that there is a statistically significant difference in the Self-Efficacy for delivering health education between gender groups (p-value = .000).

Table 5. Differences in the Cons, Pros, Self-Efficacy, beliefs, and practices for delivering health education among educational qualification groups

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Cons	Between Groups	231.879	4	57.970	1.365	.246
	Within Groups	14866.160	350	42.475		
	Total	15098.039	354			
Pros	Between Groups	259.190	4	64.798	1.317	.263
	Within Groups	17226.630	350	49.219		
	Total	17485.820	354			
Self-Efficacy	Between Groups	1409.985	4	352.496	1.886	.112
	Within Groups	65416.989	350	186.906		
	Total	66826.975	354			
Beliefs	Between Groups	215.981	4	53.995	1.109	.352
	Within Groups	17033.805	350	48.668		
	Total	17249.786	354			
Practices	Between Groups	16.082	4	4.021	1.502	.201
	Within Groups	936.875	350	2.677		
	Total	952.958	354			

df: Degree of freedom; F: F-statistics; Sig.: Significance

The study results reveal that there is no statistically significant difference in differences in the Cons, Pros, Self-Efficacy, beliefs, and practices for delivering health education among educational qualification groups.

Discussion

This descriptive predictive study aims to investigate the organizational readiness of public elementary schools in Baquba City for the delivery of 60- minutes of weekly elementary health education (EHE) using the Transtheoretical Model of Change as a theoretical framework. This study was intended to identify the extent to which these schools were ready, their Decisional Balance, Self-Efficacy, and the extent to which the schools were engaged in behaviors that may facilitate teacher progression through The Stages of Change.

The study results reveal more than a quarter are in the Maintenance Stage of Change, followed by those who are in the Action Stage of Change, those who are in the Contemplation Stage of Change, those who are in the Preparation Stage of Change, and those who are in the Precontemplation Stage of Change. Despite the highest proportion being for schools that were in the Maintenance Stage of Change, those who were in the lower Stages of Change (pre-contemplation, Contemplation, and Preparation) constituted more than half. These findings reflect poor schools' inclination to use elementary health education. These findings are higher than those obtained by Hampton et al. (2009) who stated that 23.5% of participants were in the Maintenance Stage of Change. On the other hand, these findings are incongruent with those obtained by [11]. Who reported that most of the schools' administrators were in the pre-contemplation and Contemplation Stages of Change (65.0%).

The study results display that there was a statistically significant difference in the Self-Efficacy for delivering health education between gender groups. Further group statistics demonstrated that male teachers are more inclined to use elementary health education than their female counterparts. Further cross-tabulation analysis demonstrated that male teachers have higher educational qualifications than female counterparts. As such, male teachers could have sunder health awareness than female ones which in turn rendered them more inclined to use elementary health education.

Conclusion

The researchers concluded that male teachers are more inclined to use elementary health education than their female counterparts. Teachers who reported that they did not participate in such courses experience greater Cons of using elementary health education. Contrarily, teachers who reported that they participated in such courses enjoyed greater Pros of using elementary health education.

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