

## Assessment of Health Beliefs about Cardiovascular Disease and its Relation to Some Social Variables among Elementary School Teachers in Baghdad City

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### Abstract

**Aims:** the study aims to investigate the teachers' health beliefs and its association with their social variables at AL-Rusafa Side in Baghdad City, Iraq

**Methods:** A quantitative descriptive correlational design using questionnaire items was conducted among teachers at elementary schools in Baghdad city from September 26<sup>th</sup> 2020 to April 15<sup>th</sup> 2021 to examine their health belief model related to cardiovascular diseases and related to social variables. A total of 350 primary school instructors were included in the study. They were chosen using non-probability sampling (convenience sample). Data was collected through the use of a questionnaire and self-report. Through the application of descriptive and deductive statistics, data were analyzed.

**Results:** Findings reveal that (66.6%) of teachers have unhealthy beliefs about cardiovascular diseases. As well as, there is a significant statistical difference between educational qualification ( $P$ -value=0.033).

**Conclusion:** The teachers with unhealthy beliefs regarding cardiovascular diseases, influenced by their age, BMI, monthly income, years of service as well as, There is significant statistical difference between educational qualification in the health belief model of CVD. Initiate training sessions to educate teachers about risk factors, signs and symptoms of CVD, and health directorate need to be employed to early detection of CVD through laboratory tests.

**Keywords:** Health Beliefs, Cardiovascular Disease, Teachers, Social Variables.

### INTRODUCTION

The model of health belief One of the first models to describe how to alter health habits and the psychological processes that accompany them. The expected value theory describes how to motivate people to engage in healthy habits, and HBM is founded on it. The model's main assumptions are that people should be aware that their unhealthy habits make them prone to unfavorable consequences (perceived susceptibility), and that the severity of these negative impacts could be extreme (perceived severity), That there are beneficial techniques to prevent or control these negative consequences (perceived benefits), that there are costs limited solely to health behavior commitment (perceived barriers), think there are signals or cues in the environment that lead to the adoption of healthy habits (work references), and that they have the potential to engage in healthy activity (self-efficacy)<sup>[1]</sup>. Human behavior is influenced by a variety of circumstances, and knowledge is "required to alter conduct. Affects the low degree of awareness and poor performance in avoiding heart disease and vascular disease risk factors, as well as the onset and aggravation of these diseases. It can aid established models, such as the health belief model (HBM), in systematically identifying the components that support behavioral changes, making it easier to attain the desired results"<sup>[2]</sup>. The health beliefs model (HBM) was first proposed in the 1950s to explain "the widespread refusal of people to adopt disease prevention or screening procedures for early identification of disease without symptoms." Identifies two components whose behavior is dependent on them: (1) the desire to avoid disease (or, in the case of illness, to recover) and (2) the idea that

doing a specific health action will prevent (or improve) sickness <sup>[3]</sup>. Many types of heart disease, also known as cardiovascular disease (CVD), can be prevented or treated by adopting a better lifestyle <sup>[4]</sup>. The landmark Framingham Heart Study identified important risk factors for CVD, as well as the influence of linked factors such as blood triglycerides, gender, and psychosocial disorders<sup>[5]</sup>.

Previous study has shown that it can be used to prevent HBM by using an adequate model of health-related behaviors, particularly those related to heart disease and blood vessels <sup>[6, 7]</sup>. "The behavior of individuals regarding healthy lifestyle choices is most probably linked to their health beliefs, including their perceptions of susceptibility, severity, benefits and barriers" <sup>[8, 9]</sup>. Therefore, the study aims to investigate the teachers' health beliefs and its association with their social variables.

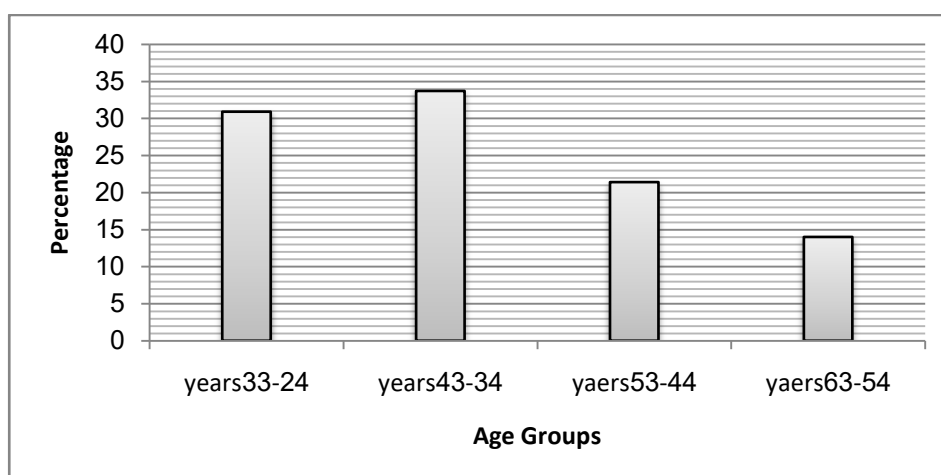
## METHODOLOGY

A quantitative descriptive correlational research used to test the approach to questionnaire items was conducted on teachers at elementary schools at AL-Rusafasidein Baghdad city from September 26<sup>th</sup> 2020 to April 15<sup>th</sup> 2021 to examine their health belief model related cardiovascular diseases in the light of some social variables.

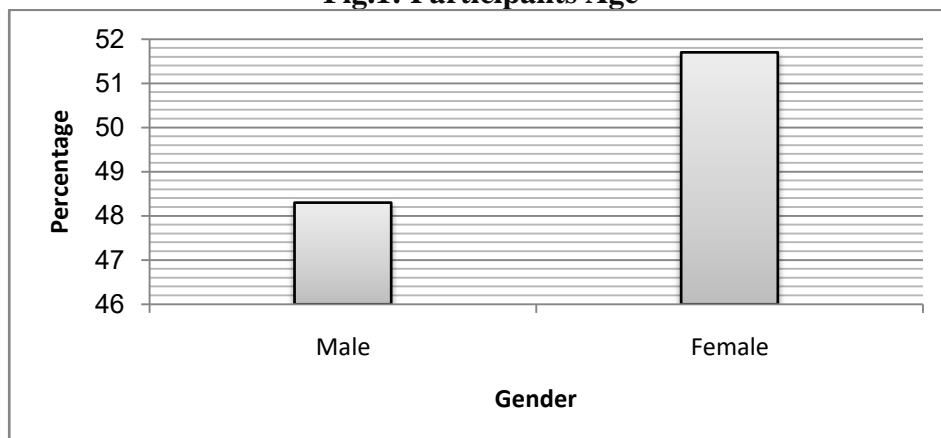
A total of 350 primary school instructors were included in the study. They are chosen using non-probability sampling (convenience sample).

Data was collected through the use of a questionnaire and self-report. Through the application of the descriptive statistic, data were analyzed "F= Frequency; %= Percentages; M,S.= Mean of Score; S.D.= Standard Deviation; unhealthy= U (1-2.5) & healthy= H (2.51-4); and persons correlation".

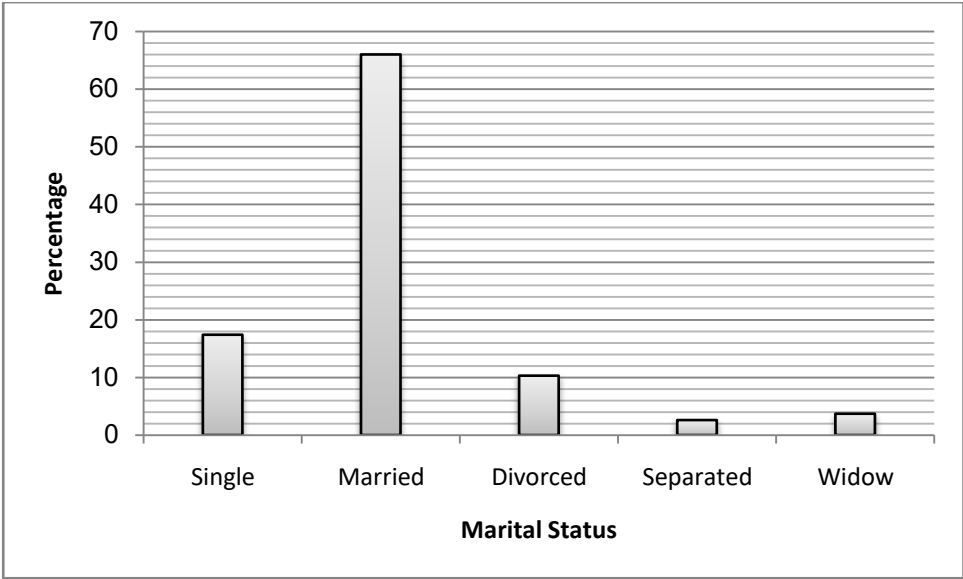
## RESULTS



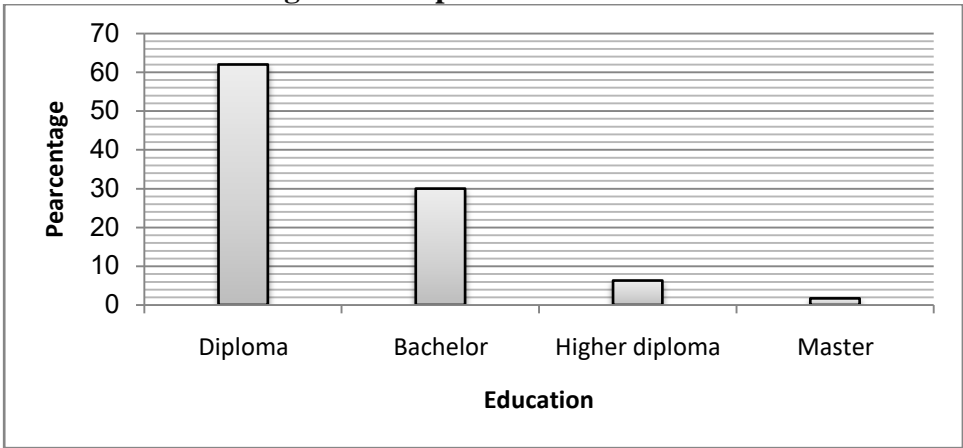
**Fig.1: Participants Age**



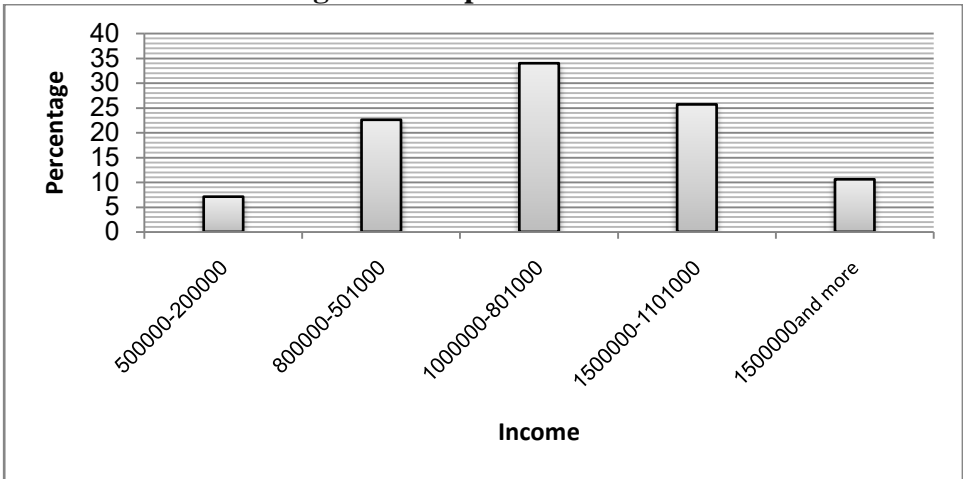
**Fig.2: Participants Gender**



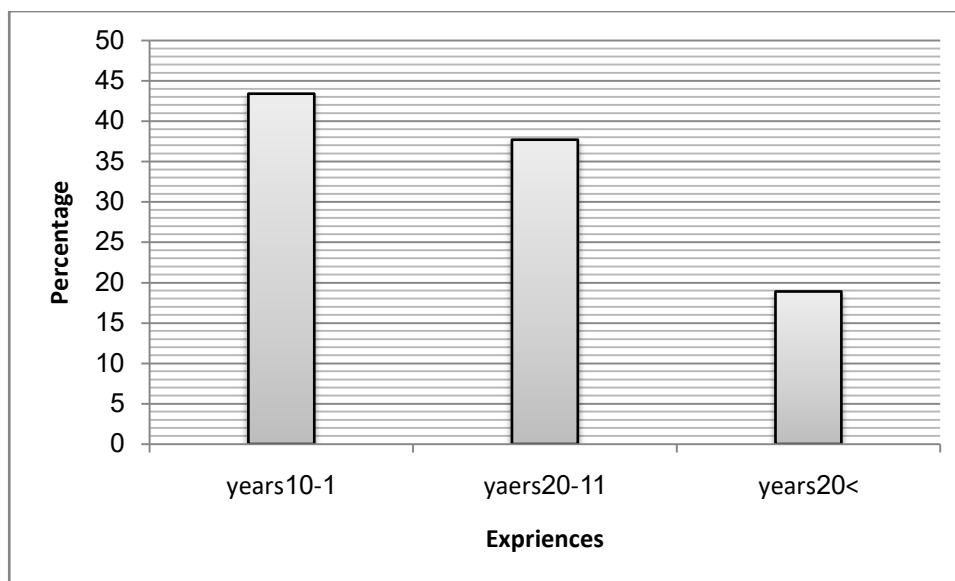
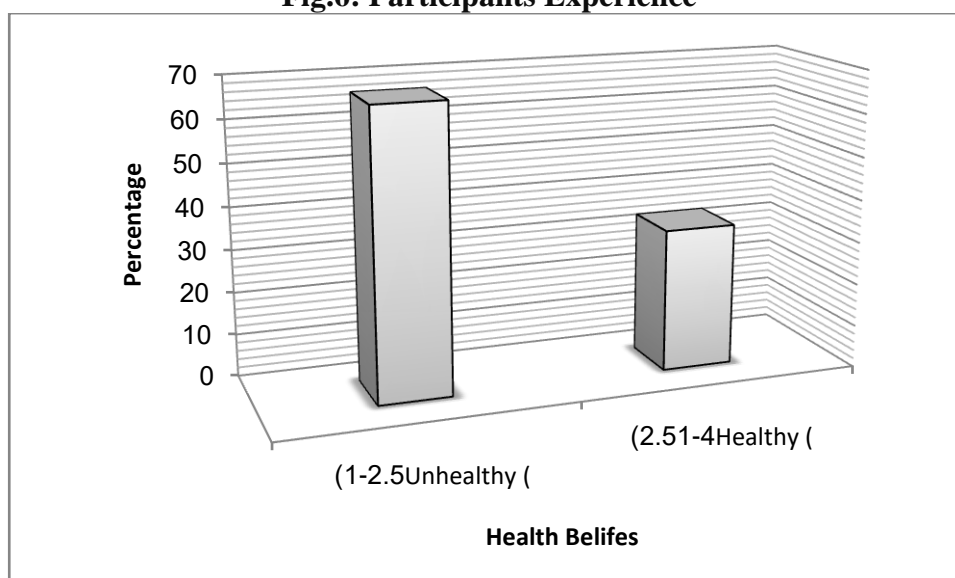
**Fig.3: Participants Marital Status**



**Fig.4: Participants Education**



**Fig.5: Participants Income**

**Fig.6: Participants Experience****Figure 7: Teacher's Response to Health Belief Models**

Findings reveals that 233(66.6%) of teachers have unhealthy belief about cardiovascular diseases.

**Table 1:Association between teacher's age, body mass index (BMI), family's socioeconomic status, years of employment and their beliefs about CVD.**

Variables		Age	BMI	Monthl y income	Years of service	HBM
Age	Pearson Correlation	1	.474**	.771**	.878**	.028
	Sig. (2-tailed)		.000	.000	.000	.608
	N	350	350	350	350	350
BMI	Pearson Correlation	.474**	1	.408**	.508**	-.023
	Sig. (2-tailed)	.000		.000	.000	.668
	N	350	350	350	350	350

Monthly income	Pearson Correlation	.771**	.408**	1	.787**	-.053
	Sig. (2-tailed)	.000	.000		.000	.323
	N	350	350	350	350	350
Years of service	Pearson Correlation	.878**	.508**	.787**	1	.030
	Sig. (2-tailed)	.000	.000	.000		.578
	N	350	350	350	350	350
HBM	Pearson Correlation	.028	-.023	-.053	.030	1
	Sig. (2-tailed)	.608	.668	.323	.578	
	N	350	350	350	350	350

Age has a substantial relationship with BMI, monthly salary, and years of service, as shown in this table (0.00, 0.00, and 0.00). The BMI has a strong correlation with monthly salary and years of service (0.00, and 0.00). The amount of money you make each month is linked to the number of years you've worked (0.00). Age, BMI, monthly salary, and years of service have no significant relationship with the CVD health belief model.

**Table 2: Difference in teacher's beliefs about CVD between the groups of gender.**

Gender	N	Mean	Std. Deviation	T	df	Sig
Male	169	2.31	.215	-1.390	348	.166
Female	181	2.34	.208			

In the health belief model of CVD, there is no significant statistical difference between male and female, as seen in this table.

**Table 3: Difference in teacher's beliefs about CVD between the educational qualifications**

Education	N	Mean	Std. Deviation	F	df	Sig
Diploma	217	2.30	.206	2.950	349	0.033
Bachelor	105	2.36	.216			
Higher diploma	22	2.41	.201			
Master	6	2.33	.266			
Total	350	2.33	.212			

In the health belief model of CVD, there is a significant statistical difference between educational qualification (P-value=0.033).

**Table 4: Difference in teacher's beliefs about CVD between the marital statuses.**

Marital status	N	Mean	Std. Deviation	F	df	Sig
Single	61	2.31	.216	1.713	349	0.147
Married	231	2.33	.211			
Divorced	36	2.32	.217			
Separated	9	2.45	.195			
Widow	13	2.43	.176			
Total	350	2.33	.212			

In the health belief model of CVD, this table reveals that there is no significant statistical difference between marital statuses.

**Table 5: Difference in teacher's beliefs about CVD between the having a family history of CVD.**

Family history of CVD	N	Mean	Std. Deviation	F	df	Sig
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Yes	115	2.33	.209	.038	349	0.963
No	121	2.33	.210			
I don't know	114	2.33	.217			
Total	350	2.33	.212			

In the health belief model of CVD, findings reveals that there is a non-statistically significant difference between family histories of CVD.

## DISCUSSION

### Discussion of distribution of the teachers by their demographic characteristics

Discussion of association between teacher's age, body mass index (BMI), family's socioeconomic status, years of employment and their beliefs about CVD. As regard of association between teacher's age, body mass index (BMI), family's socioeconomic status, years of employment and their beliefs about CVD. The result shows that age has significant association with Body mass index, monthly income, and years of service (0.00, 0.00, and 0.00). Body mass index has significant association with monthly income, and years of service (0.00, and 0.00). Monthly income has significant association with and years of service (0.00). There is no significant association between age, BMI, monthly income, years of service with the health belief model of CVD. Others found that there is no significant relationship between age and health belief model. This finding supported our finding<sup>[10]</sup>.

### Discussion of difference in teacher's beliefs about CVD between the groups of gender

The finding shows that there is no significant statistical difference between male and female in the health belief model of CVD. The finding supported the present study finding; they found that there is no significant relationship between gender and health belief model<sup>[10]</sup>.

### Discussion of difference in teacher's beliefs about CVD between the educational qualifications

The finding shows that there is significant statistical difference between educational qualification in the health belief model of CVD (P-value=0.033). It is found that there is no significant relationship between education level and health belief model. This finding inconsistent with our finding<sup>[10]</sup>.

### Discussion of difference in teacher's beliefs about CVD between the marital statuses.

The finding shows that there is no significant statistical difference between marital status in the health belief model of CVD. Also, there is no significant relationship between marital status and health belief model. This finding consisted with our finding<sup>[10]</sup>.

### Discussion of difference in teacher's beliefs about CVD between the having a family history of CVD.

The finding shows that there is no significant statistical difference between family histories of CVD in the health belief model of CVD. There is no significant relationship between family history and health belief model. This finding supported our finding<sup>[10]</sup>.

It is suggested that a health preventative education program can increase preparedness to engage in healthy behaviors and its benefits in improving the lifestyle of, as well as be more developed to improve overall health status. Furthermore, there is the option of designing and implementing this program on older persons outside of geriatric institutions, as well as attempting to implement the program at a younger age<sup>[11]</sup>.

## CONCLUSION

The teachers with unhealthy belief Models regarding cardiovascular diseases, influenced by their age, BMI, monthly income, years of service as well as, There is significant statistical difference between educational qualification in the health belief model of CVD. Initiate training sessions to educate teachers about risk factors, signs and symptoms of CVD, and health directorate need to be employ to early detection of CVD through the laboratory tests.

## REFERENCES

1. Saffari, M., Sanaeinasab, H., Jafarzadeh, H., & et al. (2020). Educational Intervention Based on the Health Belief Model to Modify Risk Factors of Cardiovascular Disease in Police Officers in Iran: A Quasi-experimental Study. *J Prev Med Public Health*, 53,275-284.
2. Noroozi, F., Eisapareh, K., Bahadori, A. *et al.* (2020). Development and validation of dust exposure prevention questionnaire for cardiovascular patients based on the health belief model. *BMC Public Health*,20,1779.
3. Kim H, Kim S, Han S, Rane PP, Fox KM, Qian Y, et al. Prevalence and incidence of atherosclerotic cardiovascular disease and its risk factors in Korea: a nationwide population-based study. *BMC Public Health* 2019; 19(1):1112.
4. American Diabetes Association. (2016). Cardiovascular Disease and Risk Management. *Diabetes Care*, 39(1), S60-S71.
5. Allender, A. judith; Rector, Cherie and Warner, D. Kristine Community & Public Health Nursing, Promoting the Public's Health. 8 ed. Walters Kluwer Health | Lippincott Williams & Wilkins; 2014, Pp.237-806.
6. Mehri A, MohagheghNejad MR (2010). Utilizing the health belief model to predict preventive behaviors for heart diseases in the students of Islamic Azad University of Sabzevar. *TolooBehdasht* 9(29): 21–32.
7. Tavassoli E, Hasanazadeh A, Ghiasvand R, Tol A, Shojaezadeh D (2010). Effect of health education based on the Health Belief Model on improving nutritional behavior aiming at preventing cardiovascular disease among housewives in Isfahan. *Journal of School of Public Health and Institute of Public Health Research* 8(3): 11–24.
8. Hasse, A., Steptoe, A., Sallis, J.F., & Wardle, J. (2004). Leisure-time physical activity in university students from 23 countries: associations with health beliefs, risk awareness, and national economic development. *Prev Med*, 39,182-90.
9. Glanz K, Rimer BK, Viswanath K. Health behavior and health education: theory, research, and practice. San Francisco: JosseyBass; 2008, p. 236-239.
10. Poudel, K., & Sumi, N. (2017). Health Behavior Regarding Cardiovascular Diseases among Nepali Adults. *J Community Health*, 42,1240–1246.
11. Resham A.K. & ArkanBahlolNaji. (2016). Effectiveness of Health Education Program about Health Beliefs Related to Cardiovascular Disease on Readiness of Engagement in Healthy Behaviors of Older Adults at Geriatric Home in Baghdad City. *International Journal of Scientific and Research Publications*, 6(11), 2250-3153.