Factors Affecting the Retirement Decision of Teachers: Case of Valikamam Educational Zone in Jaffna District in Sri Lanka

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Abstract

The aim of this study is to investigate the significant impact of personal factors, family related, income related and work-related factors in determining the retirement decisions among government school teachers in Valikamam educational zone, Jaffna district in Sri Lanka. Identifying the factors which determine the choice of retirement decision among teachers help the policymakers to design the necessary steps in future. The study was done on 160 teachers who were selected randomly from 05 schools in Valikamam during the period of 2020. Data was collected through structured questionnaire. The collected data were analyzed using frequency analysis, independent samples t – test and Probit model. Frequency analysis showed that, 64% of the teachers decided to retire early whereas 36% of them decided to retire at mandatory age. Results of independent samples t - test suggested that, average early retirement age was not differing across gender and civil status, but it is differed across rest of other variables related to the health status of the teachers, availability of income source, work attachment, facing dual role problems and influence of family health conditions in retirement decision. Results of Probit model revealed that among the personal factors, the teachers who have health problems and poor health conditions in their family are more likely to retire early than others, whereas the teachers who are not facing dual problems and who don't have other income sources, they are more likely to choose mandatory retirement age than their counterparts. The teachers who have more attached with their job and less unpaid responsibilities are less likely to retire early than other teachers. The findings of the study will be useful to the government and policy makers in preparing a proper retirement planning and reforms on social security system as well as pension programmes for the teachers in future.

Keywords: availability of income source, facing dual role problems, influence of family health conditions, retirement decisions, work related factors

Introduction

In Sri Lanka, patterns of demographics have experienced substantial changing since last decades, leading to changes in the prerequisites for the retirement systems. The life expectancy of the population has increased, the retirement age and the fertility rate has decreased in Sri Lanka which all these factors create new important challenges and questions for the retirement systems and labour market in the country. The demographic changes make it important to examine the determinants of retirement decision among the workers and based on that the government able to make adequate adjustments on this aspect in Sri Lanka. The

workers need to decide their age of retirement even they have a mandatory age and there are many factors may influence their decision whether they like to work up to mandatory or get the retirement earlier. As ageing population increases with an increase in expected life time, age of retirement also needs to be revised accordingly. The retirement decisions specially teachers have in the past often been modelled as depending on many factors like personal, family background, income and economic related factors and working environment. Thus, the factors affecting retirement decisions among teachers have attracted much attention among academic and policy makers. In this background, this study examines the impact of personal characters, family related issues, income and work-related aspects on the retirement decision among government school teachers In Sri Lanka. For the data collection, four divisions of the Valikamam educational zone were selected as the study area in Northern Province and from the four divisions, 160 male and female teachers were selected randomly during the period of 2020.

Literature Review

There is considerable research done by previous researchers on determinants of retirement decision among different category of workers in different countries.

A study carried by Smithers and Robinson (2003) to examine the factors affecting teachers' decisions to leave the profession in England. They found that, workload, new challenge, the school situation, salary and personal circumstances were the influencing factors in the study.

Another study was conducted by Locklear (2010) on factors contributing to teacher retention in Georgia. He found that, teachers view their role as important due to preparing students for future careers and the majority of teachers feel that the role of an educator has changed over the years and most have considered leaving their chosen careers due to low morale, low pay, and/or the amount of time required for the paperwork involved in the study.

According to Orina (2014), the study assessed factors the leading to early retirement of teachers of public secondary school teachers in Kajiado County in Kenya. He found that, low salary, posting to remote hardship areas, stagnation in job groups, conflict between teachers and principals, joining their spouses, and affinity for further studies, increasing teacher shortage, increasing teachers' workload, affecting curriculum implementation and interfering with teacher balancing in schools were the significant factors that influencing the retirement decision in Kenya.

An Analytical Study on Teachers' Perceptions and Attitudes towards Retirement in Secondary Schools in Rivers State, Nigeria done by Catherine Uchechukwu Osuji (2014). From his study, it shows that secondary school teachers in Port Harcourt Metropolis do have a high perception and positive attitudes towards retirement. However, these positive attitudes might have been

influenced by their perceptions on the contributory pension scheme which make saving for retirement compulsory for all the teachers. Al-Manea (2015) examined the factors influencing for early retirement demand of school principals in Riyadh Educational Directorates, Saudi Arabia. They found that economic, personal, psychological and social factors are the main determinants in the demand for early retirement in the study.

Another study was conducted by Mafukata and Mudau (2016) which exploring teacher mass resignation and early retirement from public schools in South Africa. They found that, the majority of teachers who resigned or opted for early retirements were motivated by pressure of work due to increased workload, low teacher salaries, lack of security and safety and indebtedness of teachers and lack of incentives which demoralize teachers in the country.

Keogh and Roan (2016) did a qualitative study on exploring teachers' early retirement and they found that personal health, family issues and financial security influenced their decision to retire early in the study.

A study done by Madhuwanthi (2020) on when do you retire? Examining intended retirement age decision among public sector employees in Sri Lanka. The results of the study indicated that perceived health and attitudes of the employees towards the retirement are the major factors influenced on intended retirement age decision among the public sector employees. However, studies done for teachers in Sri Lanka was not found.

Methodology

The study was done on 160 teachers who were selected randomly from 05 schools in Valikamam in Jaffna district, during the period of 2020. The respondents were asked on their decision whether they like to retire early or mandatory with related to their personal, family related, income and work-related characters in the study. This information collected using binary and categorical data through structured questionnaire. The collected data were analyzed using frequency analysis, independent samples t – test and Probit model which considered as the main analytical tools of quantitative study. However, most of the previous studies specially, Mark Keogh, Amanda Roan (2016) applied a qualitative study on exploring teachers' early retirement in their study. Thus, by applying the econometric analytical techniques, the research gap in terms of methods of data analysis can be full filled in the study.

To examine the factors influencing the retirement decision across government school teachers, binary probit model was employed in the study. The dependent variable is the retirement decision categorized as 1 for early retirement and 0 for mandatory is regressed on selected personal, family related, income and work-related characters in the study. A more appropriate method to use on micro-data with limited dependent variable is binary choice models and one type is the probit model which is often used when the dependent variable is a discrete variable.

The model can be written as:

Where,

$$Pr = (Y = 1|X) = \emptyset (X^T \beta)$$

Pr denotes probability, and Φ is the Cumulative Distribution Function (CDF) of the standard normal distribution. The parameters β are typically estimated by maximum likelihood. It is possible to motivate the probit model as a latent variable model. Suppose there exists an auxiliary random variable

Where,

$$Y^* = X^T \beta + \varepsilon$$

$\varepsilon \sim N (0, 1)$. Then Y can be viewed as an indicator for whether this latent variable is positive:

$$Y = \begin{cases} 1 & Y^* > 0 \\ 0 & \text{otherwise} \end{cases} = \begin{cases} 1 & X^T \beta + \varepsilon > 0 \\ 0 & \text{otherwise} \end{cases}$$

Based on the above model, the collected data were analysed and its results discussed in the next part.

Results and discussions

This section describes the results derived from the basic statistics such as descriptive and frequency analysis and independent samples t – test, chi – square test. In addition to that, Probit model also estimated to identify the factors influencing the retirement decision of teachers in the study area.

i. Results of descriptive statistics

Descriptive statistics are used to describe the basic features of the variables which are used in the study and its results presented in Table 1 as below.

Table 1: Results of descriptive statistics

Variables	Minimum	Maximum	Mean	Standard deviation
Age	45	59	50.41	3.703
Family size	1	7	4.38	1.307
Retirement age	50	60	57.04	2.983

Source: Calculated by authors, 2020

Results of descriptive statistics implied that an average age of the teacher is nearly 50 years old with minimum age is 45 and the maximum is 59 while an average retirement age of the respondent is 57. The average number of family member is 7 which is an indicator of large family size ensures that the availability of huge family forced to survive in the job which shows that it will lead to decide their retirement age at mandatory.

ii. Results of frequency analysis

The various characteristics of the respondents related to personal, work - related and income related variables were analyzed using frequency as given below.

Table 2: Frequency of the various characters of the sample

Variables	Category	Frequency	Percentage
Gender			
	Male	50	31.3
	Female	110	68.8
Civil Status			
	Married	147	91.9
	Unmarried	13	8.1
Health status			
	Unhealthy	97	60.6
	Healthiness	63	39.4
Availability of adequate income			
	Yes	98	61.3
	No	62	38.8
Family income per month			
	Below Rs 50,000	17	10.6
	Between Rs 50,000-Rs 100,000	113	70.6
	Above Rs 100,000	30	18.8
Influence of family health conditions	Yes	78	48.8
	No	82	51.3
Facing dual role problems			
	Yes	120	75.0
	No	40	25.0

Unpaid responsibilities			
	Easy	21	13.1
	Manageable	58	36.3
	More	81	50.6
Work attachment			
	Yes	80	50.0
	No	80	50.0

Source: Calculated by authors, 2020

In the table 2 which shows that, out of 160 samples, nearly 31% of them are male teachers and rest of the 69% are female teachers. In case of civil status, 91.9% of them are married while only 8.1% of them are single and related to health issues, 60.6% are having health problems which means that they are taking medicines for some illness or need to take rest with medicines and only 39.4% are having good health conditions.

Out of the 160 teachers, nearly 61% teachers have adequate income sources while 39% of them are not having adequate income source after they retired. Further, 48.8% of the teachers said that, the retirement age decision determined by health conditions of their family members and rest of the 51.3% of them said that it is not determined by their family members' health conditions. Among the selected samples in the study, majority of them (75%) are facing dual role problems when they are trying to balance their work with family while 25% of them are not facing such problems and thus, those respondents may decide to retire at their mandatory age.

In figure 1, choices of retirement age shows that 64% of the respondents like to retire early and rest of the 36% of them like to work as a teacher up to the mandatory age.
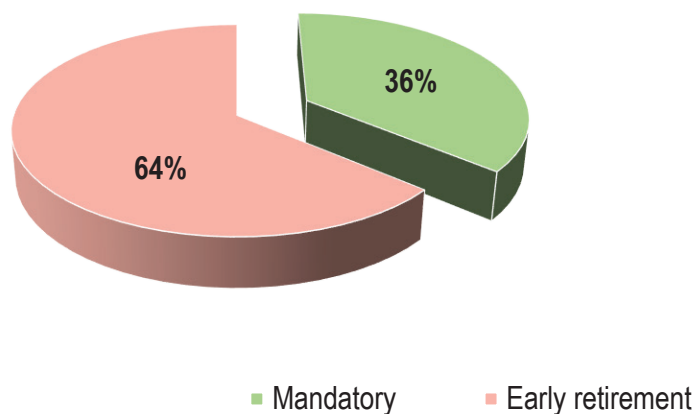

Figure 1: Choices of retirement age
Source: Calculated by authors, 2020

The figure 2 graphically describes the different frequencies among the levels of unpaid responsibilities faced by the respondents. Based on it, only 21 of them said that unpaid responsibilities are easy for them, 58 of them said that, unpaid responsibilities can be manageable while 81 of them are facing more unpaid responsibilities in the study.
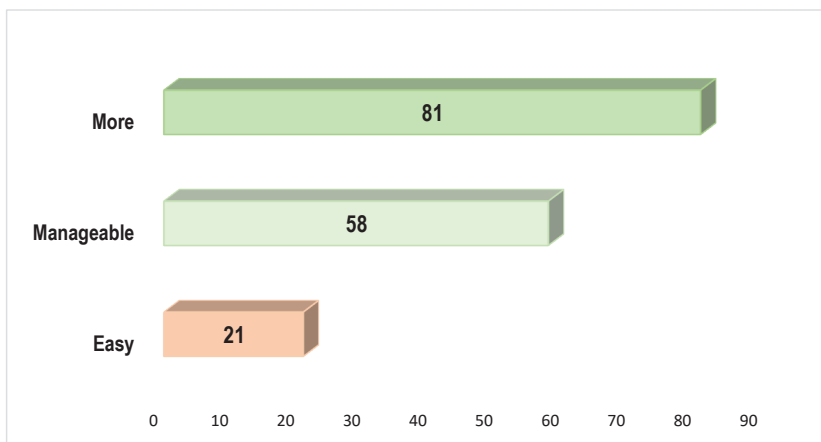

Figure 2: Unpaid responsibilities
Source: Calculated by authors, 2020

When considering family income range per month it shows that, nearly 71% of the respondents having the income range between Rs 50,000/= to Rs 100,000/- while only 10% of them have below Rs 50,000/=. This indicates that, as the respondent who has more income may retire early than who has the income below Rs 50,000/=.

Estimated results of custom tables
Choices of retirement age were measured in terms of counting numbers across health and civil status with gender of the teachers by using custom table. The table 3 shows its results and according to that, 63 female married teachers decided to choose early retirement who are unhealthy and no one decided to select the retirement age at mandatory. Among the male teachers who are unmarried with good health condition, only 1 respondent choose mandatory retirement age whereas no one select the early retirement age in the study.

Table 3: Estimated results of custom tables

						Retirement age (Count)	
						Mandatory	Early
Health	Not -	Civil	Single	Gender	M	0	3
status	healthy	status			F	0	5

				Mandatory	Early
		Married	Gender	M	2	24
				F	0	63
Healthy	Civil status	Single	Gender	M	1	0
				F	3	1
		Married	Gender	M	15	5
				F	37	1

Note: M and F represents male and female of the respondents respectively

Source: Calculated by authors, 2020

The above results revealed that, 63 female respondents who are married with health problems mostly like to choose early retirement while 24 male respondents who are married having health issues like to retire early. There are 15 single male and 37 female respondents who are healthier like to work continuously and decides to retire at their mandatory age in the study.

iii. Estimated results of chi - square test

To test the association between the choices of retirement age decision whether they prefer to retire at mandatory or early and the demographic and work-related characteristics, chi-square test applied in the study. The estimated results derived from the analysis were given in Table 4.

Table 4: Results of chi – square test

Variables		Mandatory (%)	Early (%)	χ^2	P - value
Gender				0.002	0.965
	Male	36.00	64.00		
	Female	36.36	63.64		
Civil Status				0.184	0.668
	Unmarried	30.77	69.23		
	Married	36.73	63.27		
Health status				124.599	0.000*
	Unhealthy	2.06	97.94		
	Healthy	88.89	11.11		
Availability of adequate income				63.063	0.000*
	Yes	12.24	87.76		

	No	74.19	25.81		
Family monthly income				0.289	0.865
	Below Rs 50,000/=	41.18	58.82		
	Between Rs 50,000/=-Rs100,000/=	36.28	63.72		
	Above Rs100,000/=	33.33	66.67		
Influence of family health condition				22.058	0.000*
	Yes	17.95	82.05		
	No	53.66	46.34		
Facing dual role problems				54.848	0.000*
	Yes	20.00	80.00		
	No	85.00	15.00		
Unpaid re-sponsibilities				42.150	0.000*
	Less	38.10	61.90		
	Manageable	67.24	32.76		
	More	13.58	86.42		
Work attach-ment				31.264	0.000*
	Yes	57.50	42.50		
	No	15.00	85.00		

Note: * Represent the 1% significant level.

Source: Calculated by authors, 2020

In the above table suggests that all the variables have statistically significant association with choices of retirement age except gender, civil status and monthly income the family. According to the above results, 88.89% of the respondents who are good health conditions like to retire at mandatory age while 97.94% of the respondents who are not healthy prefer to retire early. 87.76% of the respondents who have other income sources prefer to retire early and 74.19% them who don't have other sources of income prefer to retire at mandatory age. Similar way other variables also significantly associated with the retirement preference in the study.
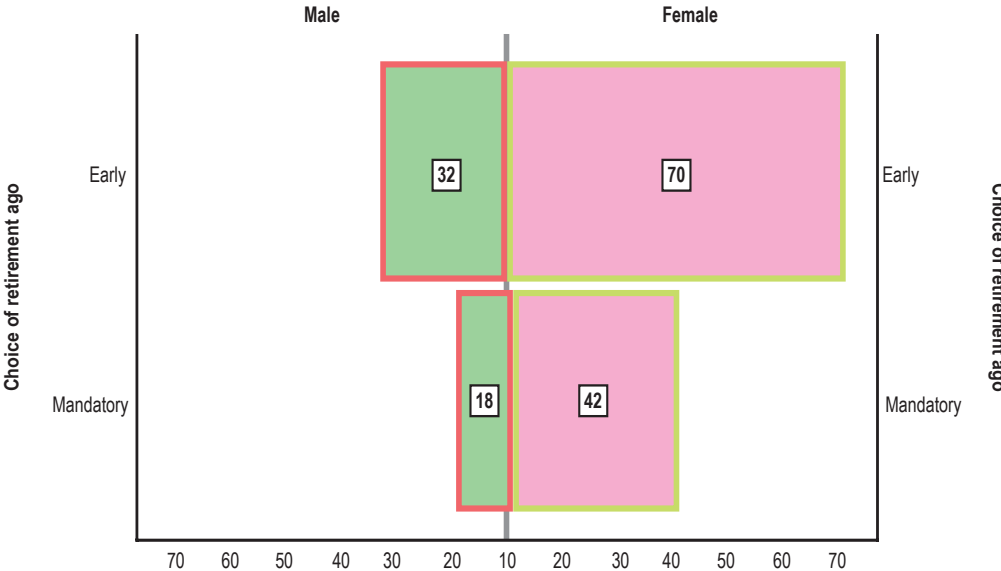

Figure 3: Choice of retirement age across gender
Source: Survey data, 2020

The above figure shows the choices of retirement age across gender and according to that, 70 females prefer to retire early while 40 of them retire at mandatory. Among males, 32 of them prefer to retire early whereas 18 of them prefer to retire at mandatory age.

Another aspect is the health issue of the teaches which represents that, 7 teachers have good health conditions even though they prefer to retire early, but 56 of the teachers have good health conditions and thus, they prefer to retire at the mandatory age. It is shown in figure 4 as below.
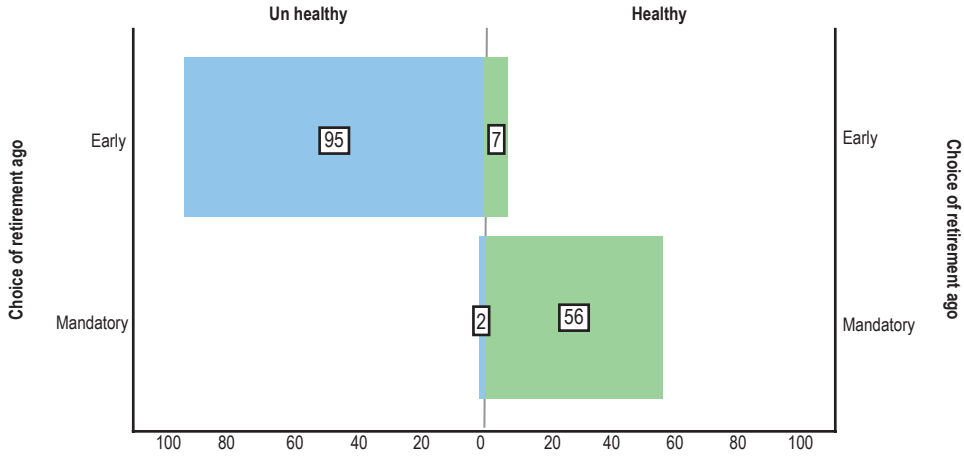
Figure 4: Choice of retirement age across health aspects

Source: Survey data, 2020

The figure 5 shows that, 34 teachers who have more attach with their job prefer to retire early while 46 teachers prefer to retire at mandatory.
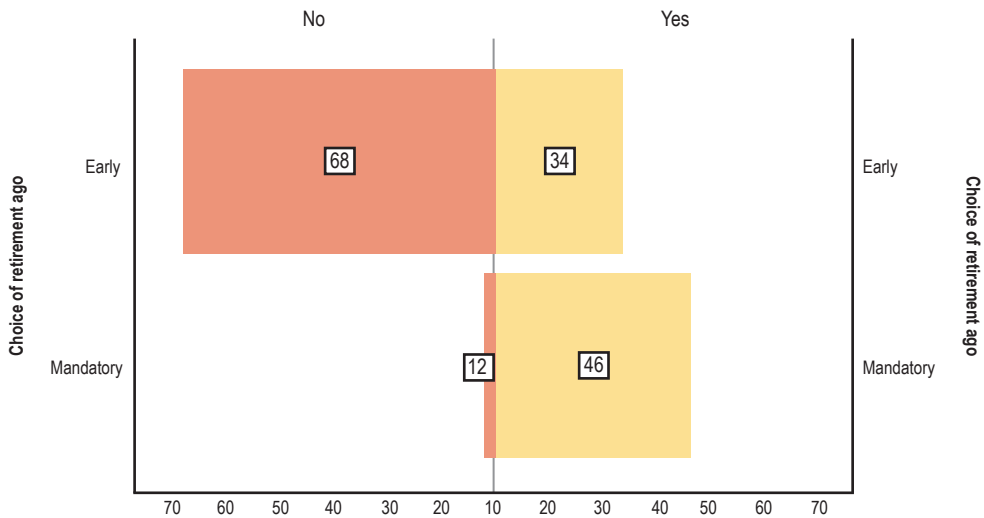

Figure 5: Choice of retirement age across work attachment

Source: Survey data, 2020

On the other hand, 68 teachers who are not attached with their job prefer to retire early and only 2 teachers prefer to retire at mandatory age in the study.

iv. Results of independent samples T-test

Independent samples t - test was used to identify the mean differences in choices of retirement age of the teachers across certain characteristics. According to the results, average early retirement age was not differing across gender and civil status, but it is differed across rest of other variables such as health status of the teachers, availability of income sources, work attachment, facing dual problems and influence of family health conditions. The results are shown in Table 5.

Table 5: Estimated results of Independent Samples T - Test

	Mean difference	Sig (2 tail)	Std. Error
Gender	-0.064	0.901	0.510
Health status	-4.274	0.000	0.345
Civil status	0.036	0.967	0.866
Availability of income source	3.457	0.000	0.400
Work attachment	-2.488	0.000	0.430
Facing dual role problems	3.342	0.000	0.477
Influence of family health condition	1.962	0.000	0.447

Source: Calculated by authors, 2020

Accordingly, the mean ages of the retirement decision across health status differ by 0.064 which shows that on average, choice of retirement age is lower for the teachers who faces health issues than who are not facing those problems in the study.

Availability of income source is statistically significant shows that, mean age of the retirement decision who are teachers have other income sources differ by 3.457 than their counterparts. Other three variables namely work attachment, facing dual role problems and influence of family health condition are also statistically significant differences across mandatory retirement and early retirement ages at 1% level.

Probit model is used to identify the factors which determine the retirement decision of the teachers whether they like to choose retire at mandatory or early with the personal characters, family related characters, income and work - related characters were taken as the independent variables in the study. The empirical results of the model are shown in Table 6.

Table 6: Results of Probit model and marginal effects: Personal characteristics

Variables	Coefficient	Standard Error	Marginal effects
Gender	-0.240	0.355	-0.024
Civil status	-0.539	0.632	-0.055
Health status	-3.305***	0.364	-0.341
Constant	2.710	0.748	…….

Source: Calculated by authors, 2020

Note: *** represents the 1% significant level.

Among the above personal characters, only health status of the teachers has significantly affected on the retirement decision and other two variables were insignificant in the model. The coefficient of health status has negative sign with the marginal effect of 0. 341 indicates that, the teacher who has good health conditions their probability to choose mandatory retirement will be lower by 34.1% compared to the teachers who have health issues in the sample.

Table 7 represents the impact of family related characters on the decision on retirement age among the respondents in Probit model.

Table 7: Results of Probit model and marginal effects: Family related aspects

Variables	Coefficients	Standard error	Marginal effects
Family size	-0.022	0.089	-0.0058
Family health condition	0.626**	0.242	0.160
Facing dual problems	1.689***	0.286	0.432
Constant	-1.078	0.466	

Source: Calculated by authors, 2020
Note: *** and ** represents the significant levels at 1% and 5% levels respectively.

The above results suggest that, all family related characters were significantly influencing the retirement decision except family size. Marginal effect of health conditions of family members has positive value of 0.16 reveals that, the teachers who have unhealthy, it will increase their probability of early retirement by 16% compared to their counter parts. Similarly, the respondents who are facing the dual problems as work and family balance, they have 43.2% of more probability to retire early than who don't face such problems.

Table 8: Results of Probit model and marginal effects: Income related aspects

Variables	Coefficient	Standard error	Marginal effects
Rs. 50000/= to Rs100000/=	-0.248	0.363	-0.061
Above Rs100,000/=	-0.223	0.437	-0.055
Adequate income sources	1.836***	0.240	0.457
Constant	-0.450	0.338	……..

Source: Calculated by authors, 2020
Note: *** represents the 1% significant level.

Among the income related characters, only the coefficient of adequate income source has significantly impact on decision of retirement age and other two were not significant in the model. The Availability of adequate income source has a positive effect on retirement decision meaning that the respondents who have other income sources, they have 45.7% of more probability to retire early than who don't have such sources of income.

Table 9: Results of Probit model and marginal effects: Work - related factors

Variables	Coefficient	Standard error	Marginal effects
Work attachment	-0.998***	0.241	-0.260
Manageable unpaid responsible	-0.742**	0.349	-0.193
More unpaid responsible	-0.598*	0.353	-0.156
Constant	0.944	0.343	……..

Source: Calculated by authors, 2020
Note: ***, ** and * represents the significant levels at 1%, 5% and 10% levels Respectively.

The above results suggest that, all the work - related characters taken in the study were significant at 1%, 5% and 10% levels. The coefficient of work attachment has negative sign reveals that, the teacher who has more attached with the job, there is less likely to choose early retirement than others while its marginal effect has the negative value of 0.26 explains that, the probability to retire early will be lower by 26% among the teachers who have more attached in their job. According to its marginal effect, the respondents who have unpaid responsibilities which are manageable, they are 19.3% of less likely to choose early retirement than other respondents who have more other responsibilities in the sample. In case of more unpaid responsibility indicates that, the respondents who have more other responsibilities, their probability of being early retirement will be lower by 15.6% in the study.

The overall findings of the Probit model reveal that, health conditions of the teachers and family members, status of facing dual problems, availability of income sources, work attachment and status of unpaid responsibilities were the significant factors in the determination of retirement decision in the study.

Conclusion

This study examined the factors that determine the decision on retirement among the selected school teachers in Valikamam educational zone, Jaffna district in Sri Lanka.

The results of frequency suggest that, 64% of the teachers prefer to retire early whereas 36% of them prefer to retire at mandatory age. Estimated results of probit model revealed that among personal factors health status is an important in determining the retirement decision. Al-Manea (2015) also found the same finding which is the personal factors significantly influencing among the school principal's early retirement in Riyadh. The current study found that, among the family related characters, health conditions of the family members and status of facing the dual problems were the major factors in determining the retirement decision in the study. The similar finding derived by Al-Manea (2015) which found that health factors as an important determinant in retirement decision. Further, adequate income sources which is the income related aspect is the major determinants in retirement decision, whereas previous studies done by Locklear (2010) and Orina (2014) in other countries which found that, low salary as an economic factor which influencing the retirement decision. Results of Probit model suggest that, across work related characters, work attachment, status of unpaid responsibilities were the major factors determining the decision of retirement in the study. On the other hand, Mafukata and Mudau (2016) and Smithers and Robinson (2003) found that pressure of work due to increased workload is the important factor in determining the retirement decision among teachers in the study.

References

Al-Manea, H. (2015). Factors influencing for early retirement demand of school principals in Riyadh Educational Directorates, Saudi Arabia. 36-42

Keogh, M., & Roan, A. (2016). Exploring teachers' early-retirement decisions: A qualitative study. Work, Aging and Retirement, 2(4), 436-446

Locklear, T. M. (2010). Factors contributing to teacher retention in Georgia. The University of Alabama

Madhuwanthi, L. P. (2020). When do you Retire? Examining Intended Retirement Age Decision among Public Sector Employees in Sri Lanka. South Asian Journal of Social Studies and Economics, 61–72

Mudau, A. V. (2016). Exploring teacher mass resignation and early retirement from public schools. Dirasat, Human and Social Sciences, 43, 5

Orina, W. A. (2014). Assessment of Factors Leading to Early Retirement of Public Secondary School Teachers in Kajiado County, Kenya. Online Submission

Osuji, C. U. (2014). Teachers' perceptions and attitudes towards retirement in secondary schools: An analytical study. International Journal of Education and Research, 2(10), 355–370

Smithers, A., & Robinson, P. (2003). Factors affecting teachers' decisions to leave the profession in England. Research Report RR430