

Older nurses in Singapore: Factors associated with attitudes towards extending working life

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Abstract

Aims: We aim to determine associations between demographic variables, motivation to work, economic factors, work demands and organisational attitudes towards older workers and whether nurses want to extend working life.

Background: Singapore's ageing workforce, coupled with the government's enactment of re-employment legislation, calls for attention on older nurses' concerns and views about working longer.

Methods: A cross-sectional survey with nurses aged 50 and above was conducted.

Results: Data from 355 respondents was analysed. Malay nurses were significantly less likely (OR 0.3, 95%CI 0.1–0.6) than Chinese nurses to want to work longer. Financing one's retirement, societal trends in postponing retirement and physical capability to continue working were factors significantly associated with older nurses' decisions to extend working life.

Conclusion: Approximately 40% of older nurses in Singapore want to work up to and above age 65. Race, societal attitudes and economic factors contribute in older nurses' decisions on retirement.

Implications for nursing management: Given an ageing workforce and manpower shortage, it is important for nurse managers and higher authorities to devise strategies to keep nurses in the workforce as long as possible. This study highlights concerns and attitudes of older nurses towards extending working life, and could inform future planning of strategies to retain older nurses.

Keywords

Motivators, older nurses, re-employment, retirement

Introduction

There is a pressing need to create an age-friendly working environment for older nurses in Singapore, to entice them to stay in the profession beyond retirement age. In Singapore, there is a growing number of older nurses in the workforce. The number of registered nurses aged 60 and above has increased from 1941 (7.5%) in 2012, to 2239 (7.8%) in 2014.¹ This reflects the growing ageing workforce in Singapore, where, in 2014, 66.3% of residents aged 55 to 64 were employed, up from 65.0% in 2013.² In 2015, there were more than 450,000 (11.8%) people aged 65 and over, and this is expected to increase to 19% by 2030.^{3,4}

With the 2012 re-employment legislation, more people can work until age 65 (instead of 62 previously). Furthermore, in 2014, the Tripartite Committee on Employability of Older

Workers recommended that the government encourage employers to voluntarily raise the re-employment age further, from 65 to 67.⁵

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Although older nurses are physically less robust than younger nurses, there are many advantages in retaining them in service. Older nurses are known to be the most skilled and productive, possess a wealth of experience, superior communication skills, are dedicated and loyal, take fewer sick days and are less inclined to consider working abroad.⁶ Age-friendly initiatives need to be implemented in the healthcare industry to entice these older nurses to stay on past retirement age, for instance moderating the work load for older nurses, on whom the physically and mentally demanding nature of the job can be exacting. The Tripartite Guidelines on the Re-employment of Older Employees say that employers should regard older employees as a source of quality manpower, and should recognise the value of making the workplace age-friendly.⁷ In doing so, the healthcare industry can hope to retain these older nurses, and sustain the high-quality nursing care patients are given.

Although much has been written about recruitment and retention of nurses, few studies have explored nurses' views about retirement and the challenges they face at work as older employees. Moreover, none have yet been carried out in Singapore. To design age-friendly initiatives that meet the needs of the older nurses, it is necessary first to understand the concerns they have.

This paper aimed to examine the factors that influence older nurses' views about extending working life. We looked at the association between the nurses' motivation to work beyond age 65 with the following: (i) their demographic profiles; (ii) economic backgrounds; (iii) physical and mental work demands; and (iv) organisational attitudes towards older workers. From this, we attempted to identify variables that would predict whether nurses would choose to work beyond age 65. This paper is part of a larger study which examined challenges faced by older nurses in Singapore, their views about re-employment legislation, re-employment opportunities and conditions.

Method

This was a large-scale, cross-sectional pen-and-paper survey which was conducted using a workplace-based sampling approach. We sought the participation of nurses working in a healthcare cluster who were aged 50 and above. The healthcare cluster consists of tertiary care acute hospitals, specialised centres, community hospitals and primary care clinics. Nurses who were working during the period of data collection (June–December 2013) were recruited. A total of 890 nurses were invited to participate. Ethical approval was obtained from the Institutional Review Board of the healthcare cluster.

Data collection

The purpose of the study was explained to potential participants, and informed consent obtained. Participants were given a questionnaire put together after extensive research of relevant literature, and after review by nursing managers and human resource experts. The survey consists of four sections: (1) demographic information, (2) health, (3) challenges

faced at work and (4) thoughts on retirement and re-employment. All questions had fixed response alternatives, and an average item level Content Validity Index (CVI) of 0.89 was achieved across the items (sections (3) and (4)). CVI was calculated by asking a panel of content experts to rate each scale item in terms of its relevance to the underlying construct.⁸

This paper focuses on the responses to section four of the questionnaire, which looks at the associations between the following factors: demographic variables, motivation to work, economic factors, physical and mental demands, organisational attitudes towards older workers, and the nurse's personal desire to work until age 65 or beyond. To increase the response rate, shopping vouchers (each valued at five Singapore dollars) were given for each completed questionnaire.

Data analysis

Data entry, management and analysis were done using IBM SPSS version 21.0. Descriptive statistics were used to present the data. Logistic regression was used to investigate associations between demographic variables, statements on motivation to work, economic factors, physical and mental demands, organisational attitudes towards older workers, and responses to 'want to work till age 55–59, age 60–64, age 65, or age >66'. Respondents were subsequently categorised into two groups, those who wanted to stop working at 65 or younger, versus those who wanted to work until age 65 and beyond.

Univariate analysis was used to evaluate the association between each demographic variable or statement and the outcome. This was followed by multivariate analysis including those variables that were found to be significant in the univariate analysis.

Results

Demographics

A total of 534 nurses out of 890 completed the survey, giving us a 60% response rate. In order to assess nurses' views on pending retirement and re-employment, only responses from participants under 60 were used in the analysis. Results from 355 respondents were valid for analysis. Given eight potential demographic variables and four potential attitude domains that could be used to predict whether the participant wanted to or did not want to extend their service, a minimum sample size of 120 was required. However, the sample size of 534 offers at least 10 cases per independent variable. The Likert scales for motivation to work, economic factors, physical and mental demands, and organisational attitudes towards older workers was also regrouped from a five-point scale to a three-point scale to ensure that there were adequate samples in each category.

Table 1 summarises the demographic profile of the respondents. Their average age was 55.6 (SD=2.5). The sample was predominantly female (96.1%), with respondents having worked for an average of 32.4 (SD=8.1) years as a nurse, and an average of 14.6 years (SD=9.0) in their current department; 67% were Chinese. Most indicated a general nursing certificate to be their highest

Table 1. Demographic profile of the participants.

	Mean		SD	Range				
Age	55.6		2.5	50–59				
Number of years worked as a nurse	32.4		8.1	1–43				
Number of years worked in current department/unit	14.6		9.0	0–37				
			N	%				
Place of work	Acute tertiary hospital		168	47.3				
	Acute hospital specialising in women and child health		111	31.3				
	Community hospital		7	2.0				
	National centre specialising in cardiac care		24	6.8				
	Community primary care clinic		45	12.7				
Gender	Male		13	3.7				
	Female		341	96.1				
Race	Chinese		238	67.0				
	Malay		59	16.6				
	Indian		42	11.8				
	Others		16	4.5				
Highest level of education	General Nursing Certificate		152	42.8				
	Diploma in Nursing/Accelerated Diploma/Advanced Diploma		68	19.2				
	Degree		90	25.4				
	Master/PhD		12	3.4				
	Others		3	8.7				
Job grade	Enrolled Nurse/Senior Enrolled Nurse		64	18.0				
	Staff Nurse/Senior Staff Nurse		173	48.7				
	Nurse Clinician/Senior Nurse Manager		66	18.6				
	Others		52	14.6				
Current working hour arrangements	Office hours		146	41.1				
	Two/three rotating shift work		171	48.2				
	Permanent morning/evening/night		25	7.0				
	others		12	3.4				
Salary range	<\$2000–3500		77	21.7				
	\$3501–5500		191	53.8				
	>\$5500		83	23.4				
Marital status	Single, never married		60	16.9				
	Married		266	74.9				
	Divorced		15	4.2				
	Widowed		14	3.9				
I want to work till	55–59 years		71	20.0				
	60–64		129	36.3				
	65		89	25.1				
	>66 years		65	18.3				
Age of respondent	Age to which respondents want to work until							
	55–59 years		60–64		65		>66 years	
	N	%	N	%	N	%	N	%
	50–54	32	27.8	42	36.5	20	17.4	21
55–59	39	16.3	87	36.4	69	28.9	44	18.4

level of education (42.8%). Staff nurses formed the largest proportion of respondents (48.7%) among the various job grades. Most (74.9%) were married, and 43.4% wanted to work until 65 years of age and beyond. Table 2 summarises responses to the various statements on motivation to work, economic factors, physical and mental demands and organisational attitudes towards older workers. Most (72.4%) agreed that work is an important part of their life. A good proportion (44.5%) said they felt they needed to

continue to work, as they or their family had not saved enough for their retirement.

Influence of demographic factors on desire to work until age 65 and beyond

For this analysis, respondents were categorised into two groups: those who wanted to stop work at work 65 or before, versus those who wanted to work until age 65 and

Table 2. Perspectives on motivation to work, economic factors, physical and mental work demands and organisational attitude towards older workers.

	Disagree strongly or disagree		Neutral		Agree or agree strongly	
	N	%	N	%	N	%
Motivation to work till 65 years of age						
My work is an important part of my life	21	5.9	72	20.3	257	72.4
I will stop working before age 65 when my spouse/close friend stops working	150	42.3	91	25.6	110	31.0
Among my friends and family members, it is common to work till 65 years of age	84	23.7	88	24.8	180	50.7
I believe the common attitude in society is to stop working before 65 years	133	37.5	98	27.6	121	34.1
Economic factors						
I will stop working before 65 as I have saved enough for my retirement plans	158	44.5	103	29.0	89	25.1
I will stop working before 65 as my family can support my retirement plans	158	44.5	103	29.0	89	25.1
I need to work till 65 to support my family	169	47.6	102	28.7	80	22.5
I am saving in different ways to make it possible to stop working before 65	77	21.7	110	31.0	165	46.5
Health						
My work is too physically demanding for working till 65 years	104	29.3	108	30.4	140	39.4
My work is too mentally demanding for working till 65 years	92	25.9	109	30.7	151	42.5
Attitude towards older workers in the organisation						
Due to my age, I get fewer opportunities for training	131	36.9	101	28.5	120	33.8
Due to my age, I get fewer opportunities for supervision	177	49.9	98	27.6	75	21.1
In my organisation, the managers' attitude towards older workers is positive	39	11.0	119	33.5	192	54.1
Management is empathetic towards the needs of older workers	61	17.2	154	43.4	136	38.3
In my organisation, there are special arrangements to cater to the needs of (e.g. including changes in work environment or different working hours arrangement) older workers	108	30.4	131	36.9	113	31.8

Table 3. Influence of demographic factors on wanting to work until age 65 and beyond.

		Univariate odds ratio	95% CI	p-value
Place of work	Acute tertiary hospital	Ref		
	Acute hospital specialising in women and child health	1.2	0.8–2.0	0.4
	Community hospital	2.1	0.4–9.5	0.4
	National centre specialising in cardiac care	1.6	0.7–3.6	0.3
	Community primary care clinic	1.6	0.8–3.1	0.2
Gender	Male	Ref		
	Female	1.2	0.4–3.9	0.7
Race	Chinese	Ref		
	Malay	0.3	0.1–0.5	<0.01
	Indian	1.2	0.6–2.3	0.6
	Others	0.8	0.3–2.3	0.7
Highest level of education	General Nursing Certificate	Ref		
	Diploma in Nursing/Accelerated Diploma/Advanced Diploma	1.0	0.5–1.8	1.0
	Degree	1.8	1.1–3.1	0.03
	Master/PhD	3.2	0.9–10.9	0.07
	Others	1.1	0.5–2.5	0.7
Job grade	Enrolled Nurse/Senior Enrolled Nurse	Ref		
	Staff Nurse/Senior Staff Nurse	1.1	0.6–1.9	0.9
	Nurse Clinician/Senior Nurse Manager	1.1	0.6–2.3	0.7
	Others	1.6	0.8–3.3	0.2
Current working hour arrangements	Office hours	Ref		
	Two/three rotating shift work	0.6	0.4–0.9	0.02
	Permanent morning/evening/night	0.8	0.3–1.8	0.5
	others	0.8	0.2–2.8	0.7
Salary range	<\$2000–3500	Ref		
	\$3501–5500	0.8	0.5–1.4	0.5
	>\$5500	1.0	0.6–1.9	0.9
Marital Status	Single, never married	Ref		
	Married	1.2	0.7–2.2	0.5
	Divorced	2.4	0.8–7.7	0.1
	Widowed	1.6	0.5–5.2	0.4

beyond. A higher odds ratio indicates that respondents perceived a greater desire to work until age 65 and beyond. As shown in Table 3, respondents who were Malay were less likely (odds ratio: 0.3) than Chinese respondents to want to work until age 65 and beyond. Compared with respondents who worked office hours, respondents who still performed rotating shift work were less likely (odds ratio: 0.6) to want to work until age 65 and beyond. Conversely, respondents who had a degree were more likely to want to continue working (odds ratio: 1.8), as compared with those with a general nursing certificate qualification.

Influence of other factors on desire to work until age 65 and beyond

Respondents were similarly categorised into two groups, those who wanted to stop working by 65 or before, and those who wanted to work until they were 65 and older. A higher odds ratio indicates that respondents perceived a greater desire to work until age 65 and beyond. In the univariate analysis, 11 statements were significantly associated with the desire to work until age 65 and beyond. Four statements were related to motivation to work, four were related to

economic factors, and two were related to health, and one was related to organisational attitude towards older workers. We observed the strongest response for the statement: 'I will stop working before 65 as I have saved enough for my retirement plans'. When we compared respondents who disagreed with this statement with those who agreed, we observed an OR of 15.0 (95% CI of 7.9–28.5). Demographic variables and statements which were found to be significant in the univariate analysis were included in the final multivariate analysis. In the final multivariate model, we included the background variables of race, highest level of education, current working hour arrangements, and statements found to be significant in the univariate analysis (Table 4). In that analysis, we found that only race, and statements related to motivation to work and economic factors remained significant (Table 5).

Discussion

This study showed that as Singaporean nurses get older, a greater proportion of them desire to work until they are 65. This is congruent with previous study findings, which indicated that employees aged 60–64 years more often reported that they wanted to work until age 65 than those aged 55–59

Table 4. Influence of motivation to work, economic factors, physical and mental work demands and organisational attitude towards older workers on wanting to work until age 65 and beyond.

		Univariate odds ratio	95% CI	p-value
Motivation to work till 65 years of age				
My work is an important part of my life	Agree/strongly agree	Ref		
	Disagree/strongly disagree	0.3	(0.08–0.8)	0.01
	Neutral	0.5	(0.3–0.9)	0.01
I will stop working before age 65 when my spouse/close friend stops working	Agree/strongly agree	Ref		
	Disagree/strongly disagree	8.5	(4.7–15.2)	<0.01
	Neutral	2.3	(1.2–4.4)	0.01
Among my friends and family members, it is common to work till 65 years of age	Agree/strongly agree	Ref		
	Disagree/strongly disagree	0.43	(0.3–0.8)	<0.01
	Neutral	0.81	(0.5–1.4)	0.4
I believe the common attitude in society is to stop working before 65 years	Agree/strongly agree	Ref		
	Disagree/strongly disagree	4.7	(2.7–8.0)	<0.01
	Neutral	2.0	(1.1–3.6)	0.02
Economic factors				
I will stop working before 65 as I have saved enough for my retirement plans	Agree/strongly agree	Ref		
	Disagree/strongly disagree	15.0	(7.9–28.5)	<0.01
	Neutral	3.3	(1.8–6.3)	<0.01
I will stop working before 65 as my family can support my retirement plans	Agree/strongly agree	Ref		
	Disagree/strongly disagree	12.4	(6.2–24.7)	<0.01
	Neutral	3.6	(1.7–7.5)	<0.01
I need to work till 65 to support my family	Agree/strongly agree	Ref		
	Disagree/strongly disagree	0.3	(0.1–0.4)	<0.01
	Neutral	0.3	(0.2–0.6)	<0.01
I am saving in different ways to make it possible to stop working before 65	Agree/strongly agree	Ref		
	Disagree/strongly disagree	5.1	(2.8–9.1)	<0.01
	Neutral	3.2	(1.9–5.3)	<0.01
Health				
My work is too physically demanding for working till 65 years	Agree/strongly agree	Ref		
	Disagree/strongly disagree	7.3	(4.1–13.0)	<0.01
	Neutral	2.3	(1.4–3.8)	<0.01
My work is too mentally demanding for working till 65 years	Agree/strongly agree	Ref		
	Disagree/strongly disagree	8.3	(4.1–13.0)	<0.01
	Neutral	2.3	(1.3–3.8)	<0.01
Attitude towards older workers in the organisation				
Due to my age, I get fewer opportunities for training	Agree/strongly agree	Ref		
	Disagree/strongly disagree	0.9	(0.6–1.5)	0.8
	Neutral	0.5	(0.3–0.9)	0.03
Due to my age, I get fewer opportunities for supervision	Agree/strongly agree	Ref		
	Disagree/strongly disagree	1.2	(0.7–2.1)	0.5
	Neutral	1.1	(0.6–2.1)	0.7
In my organisation, the managers' attitude towards older workers is positive	Agree/strongly agree	Ref		
	Disagree/strongly disagree	1.6	(0.8–3.3)	0.1
	Neutral	1.4	(0.9–2.3)	0.1
Management is empathetic towards the needs of older workers	Agree/strongly agree	Ref		
	Disagree/strongly disagree	1.6	(0.8–2.9)	0.2
	Neutral	1.6	(1.0–2.5)	0.1
In my organisation, there are special arrangements to cater to the needs of (e.g. including changes in work environment or different working hours arrangement) older workers	Agree/strongly agree	Ref		
	Disagree/strongly disagree	1.4	(0.8–2.3)	0.3
	Neutral	1.3	(0.8–2.1)	0.3

Table 5. Final multivariate model.

Variable		Multivariate odds ratio	95% CI	p-value
Race	Chinese	Ref		
	Malay	0.2	0.1–0.5	<0.01
	Indian	0.8	0.3–2.1	0.7
	Others	1.6	0.4–6.8	0.5
Motivation to work till 65 years of age				
I will stop working before age 65 when my spouse/close friend stops working	Agree/strongly agree	Ref		
	Disagree/strongly disagree	2.7	1.2–6.2	0.02
	Neutral	1.4	(0.6–3.2)	0.5
I believe the common attitude in society is to stop working before 65 years	Agree/strongly agree	Ref		
	Disagree/strongly disagree	3.1	(1.4–6.6)	<0.01
	Neutral	1.9	(0.9–4.4)	0.1
Economic factors				
I need to work till 65 to support my family	Agree/strongly agree	Ref		
	Disagree/strongly disagree	0.2	0.1–0.5	<0.01
	Neutral	0.3	0.1–0.7	<0.01

years.⁹ Although this is reflective of the general older population in Singapore, it could also have been due to a selection bias: nurses who were not keen to extend working life would have left the nursing profession.¹⁰

Malay nurses, compared with Chinese nurses, were more likely to want to stop working earlier. Given that the majority of nurses are women, this finding could be explained by cultural attitudes that Malay women are more valued for their role as caregiver at home.¹¹ This association remained even after controlling for work hours arrangements, educational qualifications and attitudes towards extending working life.

Previous studies have highlighted that shift work poses a challenge for nurses as they get older. This is congruent with this study's findings, which show that older nurses who still perform shift work were less likely to want to work until they were 65 or older. Nurses with a degree were also more likely to want to work until they were 65 and beyond, compared with those with only a general nursing certificate. This could be because older nurses with a degree felt that they had more to contribute if they continued to work, and enjoyed greater job satisfaction.¹²

However, when taking into account cultural attitudes, work hours arrangements and education qualifications ceased to be significant. Nurses who did not find their physical workload to be too demanding were also keener to want to work until they were 65 or older. This is not surprising, given that older nurses tend to have more health concerns and might find physical work more demanding as they age.¹³ Older health care workers are also known to suffer from back pain and other musculo-skeletal disorders and stress-related mood disorders.¹⁴ Moreover, nursing as a vocation is physically demanding. It involves long hours, shift work and manual labour such as lifting patients.¹⁵ Smaller studies have also reported older nurses' health concerns, or issues with heavy work demands or changes in the work place prompting them to leave the workforce.^{13,15} Other negative aspects of work that lead to older nurses leaving include rapid technological changes that impact nurses' practice competence, and job stress, related to heavy workloads and decreased physical and mental stamina.^{15,16}

Previous studies have reported that financial considerations could be either a deterrent or incentive for older workers when making a choice between retirement and extending their working life. Older nurses might choose to retire early if they are able to meet the financial needs of their later years.^{9,17} In a study of older Australian nurses' intention to leave the workforce, respondents reported 'financial security', 'maximum superannuation benefits reached' and 'optimal taxation situation' as key financial considerations for leaving the workforce.^{17,18}

On the other hand, older nurses might continue to work if they have not saved enough or are still supporting their dependents financially.^{9,18} Similarly, in the current study, results of the univariate analysis demonstrate that older nurses were more likely to want to work until age 65 and beyond, if they or their family had not saved enough for their retirement plans. This is congruent with wider trends, which indicate that most Singaporeans are unprepared financially for retirement.¹⁹ In other studies, authors found that older nurses working in their late 50s and early 60s continue to work in order not to compromise their financial situation in the future, or to finance the post-retirement lifestyle they desire.^{13,15} Respondents who disagreed that 'they need to work till 65 to support my family', were less likely to want to work more years. Although economic factors were found to be associated with respondents' desire to work until age 65 and beyond, we did not find any association between salary range and desire to extend work life.

Similar to previous findings, the decision of spouses and close friends to stop working played a role in influencing older nurses' decision to extend work life.⁹ Those who disagreed with 'I will stop working before age 65 when my spouse/close friend stops working' were more likely to want to work longer. Given that majority of our respondents were female and married, the results could be due to the perceived need to provide for the family financially after their spouses retired. In the multivariate analysis, the perceived general attitude of the society towards retirement also played a significant role. This could be due to nation-wide publicity campaigns on ageing well and the extension of re-employment age during the

period of data collection. There was no follow-up study conducted to examine if the nurses who said they would extend their working life beyond the retirement age actually did, a possible limitation of the study.

Conclusion

About 40% of older nurses in Singapore want to work until age 65 and beyond. Malay nurses are less likely to want to extend their working life as compared with Chinese nurses. Societal attitudes towards retirement and economic factors play a role in influencing older nurses' decision to extend working life.

Implications for nursing management

Given an ageing workforce and manpower shortage, it is important for nurse managers to devise strategies to keep nurses in the workforce as long as possible. How the organisation manages the older nurses and caters to their working style makes a difference. In a literature review that included 38 papers published between 1998 and 2007, we found that older nurses value being recognised for their expertise and work, and prefer managers who are professional, demonstrate integrity and who empower others.²⁰ They prefer direct involvement in decision making and being able to make an impact on patient care (empowerment and autonomy).

Despite common misconceptions, older nurses do appreciate ongoing professional development opportunities. They want to continue to learn and to be able to keep up with changes in the workplace, in particular technological changes. Healthcare employers should continue to include these older nurses in their training and skills development programmes, and not exclude them based on their age.

Another thing to take into consideration is the workload of older nurses. Older nurses also often want a reduction in workload, less physically demanding jobs and flexible work arrangements. Adequate compensation for years of experience, knowledge and responsibility would also entice them to work longer.²⁰ Hopefully this study has highlighted the concerns and attitudes of older nurses towards extending their working life, and will inform future manpower strategies to retain older nurses.

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Contributions

Study design: ASY, SBMA, NBSN, HZ, PC, LTO, MKF

Data collection: ASY, SBMA, NBSN, TU, HZ, PC, LTO, MKF

Data analysis: ASY, TU, TO

Study supervision: SBMA

Manuscript writing: ASY, SBMA, NBSN, TU, HZ, PC, LTO, MKF, TO

Critical revisions for important intellectual content: ASY, TO

Declaration of conflicting interests

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