Survey of Attitude toward Work among Pharmacists Working in Large Chain Community Pharmacies in Japan

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In Japan, many new pharmacy graduates currently look for positions in large chain community pharmacies. We conducted a cross-sectional study to obtain information that could be used in career design for pharmacy students by investigating the attitude of pharmacists working in such pharmacies toward their work, especially with regard to job satisfaction, and their future work plans, through a self-administered survey. We had the headquarters of 4 pharmacy chains distribute the survey to 2,071 pharmacists working in their pharmacies.

The proportion of usable data was 76.5%. More than 60% of the surveyed pharmacists were working as community pharmacists in order to put their license to good use or because they wished to work in the health care field. Though 90% of the pharmacists were satisfied with their jobs, only 7.6% of them could see themselves remaining in their current jobs until retirement. Therefore, job satisfaction among pharmacists was considerably higher than it was for college graduates, expert workers and technicians in general. It was felt that pharmacists' future work plans was affected by age, job satisfaction, years employed and gender.

The results of our survey suggest that pharmacists working in large chain community pharmacies are dedicated professionals who are highly motivated, have a tendency to change jobs, and mostly female. It seems that generally speaking, pharmacists are more interested in their field of expertise than their workplace as compared with workers in other professions.

Key words pharmacist survey, community pharmacist, chain pharmacy, work attitude, job satisfaction, future work plan

Introduction

In general, as employee job satisfaction increases, customer or patient satisfaction also rises^{1,2)}. Community pharmacists were less satisfied with their situation, and their job satisfaction was significantly different depending on gender and years experience³⁾. The factors impacting job satisfaction of community pharmacists were 'Management policy', 'Work environment' and 'Organizational administration', but not 'Individual motivation'^{*a}. Hospital pharmacists considered that their duties were worthwhile, although they were dissatisfied with their status in their institution⁴⁾. A common factor influencing job satisfaction was "the upbeat atmosphere", although various factors were found among hospital employees²⁾. There are several reports concerning work attitude of Japanese pharmacists as the above studies, while these studies do not focus on comparison of work attitude between pharmacists and ordinary workers.

In studies conducted outside Japan, pharmacists were satisfied with their job⁵⁾, and job/career satisfaction and turnover intention were important quality-of-worklife issues from the pharmacists' perspective⁶⁾. The average annual turnover rate and the average term employment were discussed⁷⁾. Future work plans were found to be influenced by a variety of individual, organizational, and cultural/climatic factors⁸⁾. There are not many discussion of job satisfaction, turnover and future work plans in chain community pharmacists in Japan.

Today in Japan, many new pharmacy graduates seek work in chain community pharmacies, which hardly existed in the Japanese labor market in the early 1990s. The object of this study is to investigate the work attitude, especially, job satisfaction and future work plans of community pharmacists in the chain pharmacies, which could help student career design.

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Methods

After each company agreed to participate in this study, the questionnaires were designed and revised so that respondents could complete them in as short a time as possible. Predetermined answers were categorized in order to examine issues related to work attitude. A self-administered survey of cross-sectional studies was conducted. Basic demographic items consisted of employment status (regular^{*b}/non-regular^{*c}), gender, marital status, age (5 categories), and years employed in the current workplace (5 categories). Three other questions were asked: the number of pharmacists in the current workplace, the number of workplaces changed, and the number of pharmacies served since graduation. With regard to the work attitude of the pharmacists, seven questions were asked: the main reason for being a community pharmacist, reasons for choosing the current workplace (ranked to top three), the most important work-related concerns, job satisfaction, reasons for any dissatisfaction with the current workplace, future work plans and, for those who had changed to the current workplace, reasons for leaving the previous workplace (ranked to top three).

Pharmacists were informed by their supervisor that participation in this unsigned survey was voluntary, and that the data would be used only for research, and sealed answer sheets were mailed directly to the investigator. The survey was conducted between December 2007 and January 2008. The surveyed data were tested with chi-square tests, Wilcoxon rank-sum test and Kruskal-Wallis test depending on data by using SPSS 16.0 J for Windows (SPSS Japan Inc., an IBM company). Quantification theory 1 for job satisfaction and Quantification theory 2 for future work plans (Esumi Co. Ltd.) were used, respectively. A *p* value less than 0.05 was defined as statistically significant *a priori*.

Results

The rate of usable data was 76.5%: the number of usable data from a total of 2,071 pharmacists was 1,585, which completed the basic demographic data. The effective data for each question, where those with missing answers were excluded, from the usable 1,585 data were analyzed.

Here are the characteristics of our respondents (**Table 1**): approximately female 70%, single 60%, regular employment 80%, 22–29 years 50% and less than 3 years employed 50%. Comprehensive results were shown in the **Table 2**. Main reason for being a community pharmacist: more than 60% of the respondents were interested in putting their license into practice, identified as 'practical utilization of pharmacist license' (42.8%) and 'desire to work in healthcare field' (21.7%). The highest ranked reason for choosing the current workplace was 'well-known large com-

pany' (36.5%), followed by 'employment terms and conditions' (15.3%).

Running from the most important work, the concerns were: 'work content' (33.2%), 'interpersonal relationship' (25.6%), and 'work and family life balance' (20.3%). Respondents were asked to place their personal level of job satisfaction within the following parameters: 80–100 pts., 70–79 pts., 60–69 pts., 50–59 pts. and <50 pts. with a total one hundred points (pts.). Approximately 90% of the respondents reported a rate of satisfaction above 60 points. 'Employment terms and conditions' (29.0%) was ranked as the largest area of dissatisfaction followed by 'salary' (27.4%). Regarding the future work plans the respondents choosing 'stay until retirement' were only 7.6%. Main reasons for turnover: approximately half of the respondents had changed jobs. The two main reasons for leaving their previous work place were: 'family issues' (27.5%), and 'employment terms and conditions' (20.3%).

Differences among demographic characteristics were found (**Table 3**). There were significant differences between single and married in all questionnaire items. Job satisfaction data showed significant differences in employment status, marital status, years employed and the number of pharmacies joined after graduation in main categories. Significant differences in job satisfaction of regular employment data were exhibited between males and females, single males and females, and married males and females. Future work plan data showed significant differences in all basic demographic characteristics such as employment status, gender, marital status, age and years employed, and among all groups of regular employment.

The relationships between job satisfaction and all questionnaire items were analyzed by Quantification theory 1. However, the coefficient of determination in this analysis satisfaction came to 0.199, clearly an unreliable analysis result (usually more than 0.5 is preferable). Therefore, it was not recognized this specific item affected job satisfaction. Relationships between future work plans and all questionnaire items were analyzed by Quantification theory 2. The correlation ratio between 'stay until retirement' and 'stay for less than 5 years' was 0.471 (*p* = 0.000), a moderate correlation. Possible items affecting future work plans were gender (*p* = 0.000), age (*p* = 0.000), job satisfaction (*p* = 0.000), years employed (*p* = 0.001) and employment status (*p* = 0.040). A category score (+) indicates the influence of 'stay until retirement' and (−) 'stay for less than 5 years' (**Fig. 1**). The categories of age (more than 40 years), job satisfaction (80–100 points), years employed (more than 10 years) and gender (male) in order of strength also affected future work plans. On the other hand, the categories of job satisfaction (less than 50 points) and age (26–29 years) may have influenced 'stay for less than 5 years'. This model

^{*b} directly employed as full-time pharmacists

^{*c} any pharmacists who were not regular

Table 1 . Demographics of Respondents

Characteristics		Respondents (%)
Employment status	Regular	1,270 (80.1%)
	Non-regular	315 (19.9%)
Gender	Male	499 (31.5%)
	Female	1,086 (68.5%)
Marital status	Single	955 (60.3%)
	Married	630 (39.7%)
Age	22-25	376 (23.7%)
	26-29	446 (28.2%)
	30-34	328 (20.7%)
	35-39	162 (10.2%)
	>40	273 (17.2%)
Years employed in the current workplace	<1	364 (23.0%)
	2-3	460 (29.0%)
	4-5	264 (16.7%)
	6-9	354 (22.3%)
	>10	143 (9.0%)
The number of pharmacists in the current workplace	<4	735 (46.4%)
	5-9	603 (38.0%)
	10-14	202 (12.7%)
	>15	45 (2.8%)
The number of workplace changed since graduation	1	808 (51.0%)
	2	309 (19.5%)
	3	225 (14.2%)
	4	129 (8.1%)
	>5	114 (7.2%)
The number of pharmacies served since graduation	1	1,103 (69.6%)
	2	275 (17.4%)
	3	136 (8.6%)
	4	41 (2.6%)
	>5	30 (1.9%)

confirmed 98.4% of predictive value for ' stay for less than 5 years ' and 52.9% for ' stay until retirement ' based on calculated and actual data.

Discussion

It is worth noting that the rate of regular employees (80.1 %) in our study is higher than that (57.7%) in the retail sale sector^{*d}. Female pharmacists amounted to 68.4% in our study and 73.9% in MHLW survey (community pharmacists, excluding owners)^{*e}. Note also that the age of more than half of our samples was less than 29 years, younger than the average age of community pharmacists (42.1 years)^{*e}. These results support that : clearly, female pharmacists constitute an important work force in community phar-

macies and chain pharmacies are able to recruit younger pharmacists. Pharmacists, it seems, are able to obtain regular employment positions with ease. However, when pharmacy graduates increase by 40 50% from 2012, the situation may not be so clear cut.

In our study the main reason given for being a community pharmacist was the ' practical utilization of pharmacist license ' and ' desire to work in healthcare ', indicating a strong career commitment among community pharmacists.

According to foreign studies, among the surveyed pharmacists, 67.2% were satisfied with their job⁵⁾, compared to 68% in another similar study⁹⁾. Ninety-six percent of the pharmacists in our study were satisfied if we followed the standard of 50 59 pts. as ' neither ' in the MHLW study^{*f} (Table 4). In comparison, pharmacists were much more sat-

^{*d} Ministry of Health, Labour and Welfare, Monthly Labour Survey (January 2008), www.mhlw.go.jp/toukei/itiran/roudou/monthly/20/2001r/mk2001r.html (accessed 2008 Nov 6)

^{*e} Ministry of Health, Labour and Welfare, Survey of Physicians, Dentists and Pharmacists 2006, www.mhlw.go.jp/toukei/saikin/hw/ishi/06/kekka3_1.html (accessed 2008 Oct 30)

Table 2 . Summary of Work Attitude

Item	%	Item	%
Reasons for being community pharmacists (1,579)		Reasons for dissatisfaction (1,529)	
1. Practical utilization of pharmacist license	42.8	1. Salary	27.5
2. Salary	3.3	2. Employment terms and conditions	29.0
3. Opportunity for personal development	15.1	3. Lack of personal development	2.7
4. Desire to work in health care field	21.7	4. Evaluation toward myself	1.4
5. Continuous learning	8.7	5. Employees training system	1.6
6. Easy work Years employed	0.9	6. Interpersonal relationship	3.6
7. Others	7.6	7. Workplace circumstances	6.2
		8. Hard work	13.4
Reasons for choosing current workplace* (1,580)		9. Work content issues	6.3
1. Well-known large company	36.5	10. Others	8.3
2. Policy and mission	7.8		
3. Listed company	1.6	Future work plans (1,568)	
4. Salary	2.0	1. Stay until retirement	7.6
5. Employment terms and conditions	15.3	2. Stay for long term (more than 5 years)	30.1
6. Opportunity for personal development	7.0	3. Stay for less than 5 years	26.0
7. Employees training system	11.5	4. Undecided	36.3
8. Convenient commute	10.0		
9. Recommendation from senior or friend	4.2	Reasons for turnover * (711)	
10. Others	4.1	1. Salary	6.9
		2. Employment terms and conditions	20.3
Most important work-related concerns (1,578)		3. Lack of personal development	14.5
1. Salary	5.8	4. Evaluation toward myself	0.7
2. Work content	33.2	5. Employees training system	1.7
3. Employment stability	6.5	6. Interpersonal relationship	7.2
4. Work schedule	6.0	7. Workplace circumstances	0.8
5. Work and family life balance	20.3	8. Work content issues	7.5
6. Workplace circumstances	1.6	9. Family issues	27.4
7. Interpersonal relationship	25.6	10. Others	13.0
8. Others	1.0	* Listed reasons rank first from top three	
Job satisfaction (1,581)			
1. 80-100 points	17.8		
2. 70-79 points	42.8		
3. 60-69 points	27.3		
4. 50-59 points	8.6		
5. <50 points	3.5		

isfied with their job than college graduate workers, expert workers, technologists^{*f} and that of the above foreign studies. However, a few pharmacists believed that they would continue working at their current workplace until retirement in our study. Pharmacists tend to commit to their profession rather than from the workplace itself. We could not explain factors of job satisfaction from our study, whereas it was

discussed that main factor of that was ' fair evaluation ' in physicians, ' cooperative environment ' in nurses, and ' performance evaluation with career development ' and ' innovative work environment ' in pharmacists among hospital professionals²⁾. Enrolling in continuous educational programs and precept students affect job and career satisfaction¹⁰⁾.

' Salary ' was the major reason for dissatisfaction regard-

^{*f} Ministry of Health, Labour and Welfare, Survey on Workers who Changed Jobs (2006), www.mhlw.go.jp/houdou/2007/08/h08082.html (accessed 2008 Oct 30)

Table 3 . A p value of Statistical Analysis

Category (independent variables)			Question items (consist of dependent variables)						
Main category	Sub category	Comparison categories	1	2 [#]	3	4	5	6	7 [#]
Employment status		Regular vs Non-Regular	0.185	0.000	0.000	0.000*	0.000	0.000	0.000
Gender		Male vs Female	0.003	0.000	0.000	0.141*	0.083	0.000	0.000
Marital status		Single vs Married	0.000	0.000	0.000	0.007*	0.001	0.000	0.000
Age		5 categories	0.160**	0.000**	0.392**	0.165**	0.001**	0.029**	0.065**
Years employed		5 categories	0.164**	0.001**	0.882**	0.000**	0.082**	0.027**	0.052**
No. pharmacists		4 categories	0.274**	0.007**	0.812**	0.552**	0.214**	0.849**	0.669**
No. companies		5 categories	0.258**	0.000**	0.009**	0.272**	0.000**	0.654**	0.322**
No. pharmacies		5 categories	0.188**	0.000**	0.216**	0.029**	0.001**	0.695**	0.792**
Employment status	Regular	Male vs Female	0.005	0.000	0.000	0.001*	0.442	0.000	0.001
	Regular	Single vs Married	0.000	0.000	0.000	0.832*	0.046	0.000	0.033
	Regular Male	Single vs Married	0.002	0.000	0.000	0.623*	0.239	0.019	0.445
	Regular Female	Single vs Married	0.003	0.000	0.000	0.302*	0.220	0.000	0.002
	Regular Single	Male vs Female	0.162	0.000	0.081	0.022*	0.375	0.000	0.257
	Regular Married	Male vs Female	0.038	0.002	0.000	0.008*	0.722	0.008	0.000
	Non-Regular	Male vs Female	0.581	0.009	0.000	0.672*	0.178	0.631	0.092
	Non-Regular	Single vs Married	0.092	0.181	0.000	0.411*	0.432	0.109	0.000
	Non-Regular Male	Single vs Married	0.738	0.017	0.118	0.077*	0.216	0.370	0.075
	Non-Regular Female	Single vs Married	0.072	0.268	0.000	0.952*	0.823	0.056	0.000
	Non-Regular Single	Male vs Female	0.400	0.191	0.076	0.218*	0.345	0.096	0.283
	Non-Regular Married	Male vs Female	0.975	0.000	0.011	0.041*	0.108	0.754	0.000

Question items:

1. Reasons for being a community pharmacist 2. Reasons for choosing current workplace 3. Most important work-related concerns

4. Job satisfaction 5. Reasons for dissatisfaction with current workplace 6. Future work plans 7. Reasons for turnover

[#] Listed reasons rank first from top three reasons * Wilcoxon rank-sum test ** Kruskal-Wallis test Unmarked chi-square test

less of occupation or gender^{*f}, whereas it is interesting that salary (25.3%) was the major reason for dissatisfaction even though only 5.8% of the pharmacists in our survey reported that salary was an important work-related concern.

Regarding turnover, 'salary' for males, 'family issues' for females, and 'employment terms and conditions' for both were common reasons given by all workers^{*f}, including pharmacists in our study. In particular, 'lack of personal development' was a specific reason given by male pharmacists for changing jobs.

Today community pharmacies are undergoing staff and retention problems, while staff turnover is a persistent issue in the pharmacy sector and pharmacists' labor market⁷. Pharmacists tend to leave their workplace for the desire to change, because of stress⁹. We indicated that age, job satisfaction, years employed and gender may all have influenced future work plans. It is confirmed that these factors are very important for pharmacy managements to allocate human resource in order to operate pharmacies efficiently.

In overseas reports, the annual turnover rate of women (15%) is significantly higher than that of men (9.7%), and the average term in post among women (25.2 months) is significantly less than that among men (56.5 months)⁷. Several factors are analyzed to explain turnover. A good salary and good relationships with coworkers are the most common reasons given for staying in a job⁹. Job satisfaction and intention to leave pharmacy were influenced by respondents' strength of motivation as pharmacists¹¹. An increase in the mean level of job satisfaction and organizational commit-

ment can be said to have decreased the likely incidence of the intention to seek new employment¹². Family-friendly flexible work conditions might be more effective in increasing and keeping a steady workforce than simply raising salaries¹³. 'Personally rewarding' was the most important factor for pharmacists in 1980s when choosing their first position¹⁴, but, on the other hand, the work environment was the most important factor in the view of today's pharmacy students¹⁵. Pharmacists' work attitude has been waving and changing. As such, the characteristics of pharmacists between the U.S., UK and Japan have many similarities.

Conclusion

This report provided a descriptive overview of the situation among community pharmacists in large chain pharmacies. Community pharmacists are dedicated to their profession, and highly motivated, prone to changing jobs, and mostly female. This study demonstrates that job satisfaction among pharmacists is considerably higher than it is among college graduate workers, expert workers and technologists. It indicated that pharmacists' future work plans may be affected by age, job satisfaction, years employed and gender. We hope that our findings may serve as a fundamental resource for understanding the way of pharmacists feel about the work that they do, and complement other research in this area.

Fig 1 . Category Score of Items toward Future Work Plans

Table 4 . Job Satisfaction

Our Study		MHLW Survey*		
Degree category	Pharmacists (%)	Rating scale	College graduates (%)	Expert workers/ Technologists (%)
80-100 pts	15.1	Satisfaction	27.3	23.8
70-79 pts	42.9	Less satisfaction	38.9	36.9
60-69 pts	28.9	Neither	17.0	19.1
50-59 pts	9.1	Less dissatisfaction	11.2	14.1
<50 pts	4.0	Dissatisfaction	5.1	5.5
		NA	0.5	0.6

* Ministry of Health, Labour and Welfare, Survey on Workers who Changed Jobs (2006),
www.mhlw.go.jp/houdou/2007/08/h0808-2.html (accessed 2008 Oct 30)

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Limitation Only four chain pharmacies were surveyed, which do not represent whole community pharmacies in Japan. This study is positioned as a pilot study for further researches which focus on job satisfaction, turnover and future work plans.

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