JAASP http://www.aaspjournal.org
Journal of Asian Association of Schools of Pharmacy 2019; 8: 72–82

Research Paper

Quality of worklife of pharmacists in the Philippines: a descriptive, correlational study

Jillian B. Danganan, Zadkiel F. Velasquez, Kim Michelle P. Guinto and Mac Ardy J. Gloria[1,*]

University of the Philippines College of Pharmacy

Received May 30, 2019
Revised October 17, 2019
Revised December 11, 2019
Accepted December 15, 2019

* Corresponding author
University of the Philippines College of Pharmacy, Taft Avenue, corner Pedro Gil Street, Manila, Philippines
E-mail: mjgloria@up.edu.ph

ABSTRACT

Quality of worklife (QWL) is a multi-dimensional construct that relates with an individual's life. It influences the quality of care, treatment outcomes, health expenses, and public safety. This study aimed to assess the quality of worklife of pharmacists in the Philippines, in terms of the following dimensions: stress in the work environment, control in the work environment, job satisfaction, professional commitment, work-home conflict, and organizational commitment. It employed a descriptive, correlational design. Stratified random sampling was conducted on members of the Philippine Pharmacists Association (PPhA). From the 2,476 contacted, 321 (13.0%) participants responded. Of these, 292 provided usable responses. Results showed that respondent-pharmacists were not too stressful in the work environment, and they have moderate control over it. Positive responses were also revealed for job satisfaction, professional commitment and organizational comment. However, negative response was found for work-home conflict. Stress correlated negatively with professional commitment, and positively with work-home conflict. Control correlated negatively with work-home conflict, and positively with satisfaction, professional and organizational commitment. Satisfaction correlated positively with professional and organizational commitment. Professional commitment correlated negatively with work-home conflict, and positively with organizational commitment. Lastly, work-home conflict was negatively correlated with organizational commitment. The study also revealed significant differences in the mean dimension scores, which were attributed to demographic and work-related variables. Nevertheless, the key findings from this study should be used with caution considering the limitations when it had been implemented.

Key words: quality of worklife, pharmacists, stress, organizational involvement, work-home conflict

1. Introduction

Quality of worklife (QWL) is a multi-dimensional construct relating an individual's personal and work lives, with its dimensions varying from organization to organization based on relevance (Swamy et al., 2015). QWL affects an employee's health, well-being, and work performance. Thus, it is of unquestionable importance in the overall performance of an organization, which in turn translates into the quality of service provided to customers, clients or patients. It is of particular value for those in the healthcare field with its influences on the quality of care, treatment outcomes, health expenses, and public safety.

There have been studies assessing QWL among pharmacists. One of which was conducted by McHugh (1999) on American Pharmaceutical Association (APhA) members where differences in QWL were identified across practice settings, areas of primary responsibility, and several demographic variables. McHugh (1999) assessed job satisfaction, career satisfaction, organizational commitment, turnover intention, likelihood of voting for a union, and patient care issues as the dimensions of QWL. It was also concluded that from the pharmacist's perspective, the important QWL issues include job and career satisfaction, turnover intention, and patient care concerns. More recently, the Midwest Pharmacy Workforce Research Consortium (2015) conducted the 2014 National Pharmacist Workforce Survey to collect reliable information on the pharmacist

workforce in the United States including their QWL. The 2014 survey is the fourth of its kind, serving as a continuation of the analyses and trends from previous surveys that had been done on 2000, 2004, and 2009. The dimensions assessed include stress, control, job satisfaction, professional commitment, work-home conflict, and organizational commitment. In addition to the mentioned importance of QWL, the increasing demands of today's business environment and the family structure have led the determination of QWL to become critical in the last two decades (Bagtasos, 2011). This has brought an increase in the interest in QWL for many professions and fields (Akdere, 2006).

In general, with the exception of Japan, Asia has not yet equally emphasized QWL as compared to North America and Europe. Thus, not only are there probably fewer organizations operating QWL programs, but there are also fewer published QWL research papers in the Southeast Asia region (Wyatt and Wah, 2001). This phenomenon is more evident in the pharmacy profession where studies assessing the QWL of pharmacists are concentrated only in America (McHugh, 1999; Midwest Pharmacy Workforce Research Consortium, 2015; Mott et al., 2004). In addition, to date, there are still no available studies on QWL among pharmacists in the Philippines.

With the limited published data on the pharmacy workforce in the Philippines, it is important to assess the Filipino pharmacists' QWL. This can potentially provide the profession with important information about the welfare of its constituents (Khetavath, 2015). To the best of our knowledge, this is the first study to assess the quality of worklife of pharmacists in the Philippines. This study would benefit pharmacy research, such that the results may serve as baseline information for future pharmacy workforce surveys and researches regarding the quality of worklife of pharmacists in the Philippines. Assessment of the quality of worklife among pharmacists would also be beneficial to organizations towards the improvement of their productivity, adaptability, performance, overall effectiveness, retention of employees, and reduction of employee turnover intention. The findings of the study may also be able to identify important issues on the quality of worklife of pharmacist employees that may help employers manage pharmacists in different fields of practice and that may improve quality of patient care.

This study aimed to assess the quality of worklife of pharmacists in the Philippines, in terms of six different dimensions, namely stress, control, job satisfaction, professional commitment, work-home conflict, and organizational commitment. It also explored differences in the mean QWL dimension scores, and determine correlations between the QWL dimensions.

2. Materials and Methods

2.1. Study Design

The study employed a cross-sectional, descriptive, correlational design. The QWL of pharmacists were described according to demographic variables (i.e., sex, age, highest degree attained, civil status, and number of children) and work-related variables (i.e., field of practice, type of organization or institution (private or government), job position, years of practice in current job, and salary) using a survey questionnaire as the method for data collection.

2.2. Population and Sampling Technique

The population of the study were Filipino pharmacists. The sampling frame was the 2015 database of the Philippine Pharmacists Association (PPhA) since, at the time of the study, this was the most updated database available. The PPhA is a government-accredited, integrated, national organization of licensed Filipino pharmacists with an estimated coverage rate of 40% among the national pharmacists.

The following formula was used in computing for the sample size (Creative Research Systems, 2012):

$$n = \frac{Z^2 P (1 - P)}{d^2}$$

Where n is the sample size, Z is normal deviate (i.e., 1.96) corresponding to an alpha value of 0.05, P is population proportion (set at 0.5 for maximum sample size due to lack of existing data), d is the maximum acceptable error (i.e., 0.05). After which, the following formula was used to correct the sample size based on a finite population:

$$n' = \frac{n}{1 + \frac{n - 1}{N}}$$

Where n' is the corrected sample size for finite population and N is the population size (i.e., total number of members of PPhA with indicated field was 8,661). This yielded a corrected sample size of 368. We considered an expected response rate of 15.0% (Sheehan, 2001). Hence, 2,476 individuals were asked to participate to achieve the required sample size.

Stratified random sampling was employed with the different practice settings specified in the 2015 PPhA Database as the strata. The practice settings were academe, community, distributor, drug information, government, hospital, pharmaceutical industry, and regulatory. Using the following formula, the proportion of respondents from each stratum who were contacted was computed:

Table 1. Stratified sample size of survey respondents.

Field of practice	Number of pharmacists contacted
Academe	114
Community	1,520
Distributor	27
Drug Information	7
Government	60
Hospital	594
Pharmaceutical Industry	140
Regulatory	14
Total	2,476

$$\text{Sample size of strata} = \frac{\text{corrected sample size}}{\text{total number of members}} \times \text{total number of members in each stratum}$$

The stratified sample size of survey respondents are presented in Table 1. The basis for the stratification was the field of pharmacy practice. No stratification based on geographic location was done.

2.3. Data Collection

Data was collected from March 2017 to April 2017. The data collection procedure included three participant contacts through an electronic mail: (1) initial survey mailing, (2) second survey mailing, and (3) final survey mailing and text messaging for non-responders. The survey mailings contained the overview of the study, endorsement letter from the PPhA and an online electronic link to the informed consent form and the survey questionnaire.

The prospective participants were first asked to answer the questionnaire within twelve (12) days after receipt. The second survey mailing was done one week after the initial 12-day period, while the final survey mailing was done three (3) days after the second survey mailing (Figure 1).

2.4. Instrumentation

This study utilized a self-administered online questionnaire adapted from Section 4: Quality of Worklife National Pharmacist Workforce Survey 2014 of the Midwest Pharmacy Workforce Research Consortium. The 39-item questionnaire was modified to include five (5) demographic variables: sex, age, highest degree attained, civil status, and number of children, and five (5) work-related variables: field of practice, type of organization or institution (private or government), job position, years of practice in current job, and salary.

The 39-item adapted questionnaire of Midwest Pharmacy Workforce Research Consortium used 4-, 5-, and 7-point Likert scales (Table 2). The 39 items were distributed among the dimensions of quality of worklife: stress (15 items), control (6 items), job satisfaction (5 items), professional commitment (5 items), work-home conflict (4 items), and organizational commitment (4 items). The instrument was pre-tested in order to determine the appropriateness and clarity of the items and was revised accordingly. The survey was completed within twelve (12) minutes.

2.5. Data Processing and Analysis

Data collected was encoded in Microsoft Excel 2013 and imported to Stata/MP version 14, where all statistical tests were performed. Descriptive statistical analysis (mean, frequency, and proportion) was utilized to assess the dimensions of quality of worklife. Mean scores were computed for each of the different dimensions of quality of worklife. One-way analysis of variance (ANOVA) and post-hoc Scheffe test were used to test for significant differences in the mean scores in each of the dimensions across independent variables with more than two levels and independent t-test to test for significant difference between two-leveled independent variables. Non-parametric versions of the mentioned statistical tests, such as Kruskal Wallis H Test and Dunn-Bonferroni Test, and Mann Whitney U Test were utilized when the variables did not meet the assumptions. Pearson's correlation coefficient was used to determine and evaluate the correlations among the QWL dimensions. A p-value < 0.05 was considered statistically significant for all analyses.

2.6. Ethical Considerations

The research project was reviewed and approved last February 2017 by the University of the Philippines Manila Review Ethics Board (UPMREB) Panel 5A prior to its implementation, under approval number UPMREB 2016-557-UND.

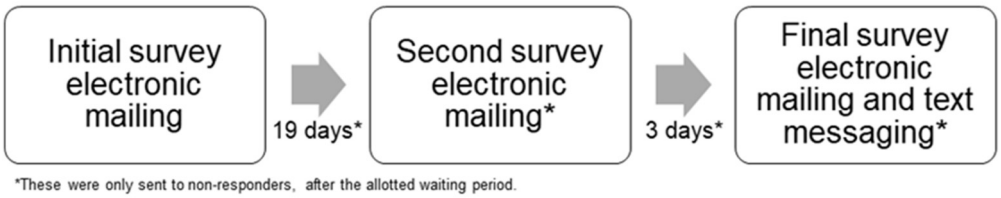

Figure 1. Flow diagram of the study.

Table 2. Survey questionnaire used in the study which is adapted from the National Pharmacist Workforce Survey 2014 of the Midwest Pharmacy Workforce Research Consortium.

Stress in your work environment
In general, how stressful is… Answer category: Not at all stressful, Not too stressful, Somewhat stressful, Highly stressful, or N/A
1. Being interrupted by phone calls or people while performing job duties?
2. Not being staffed with an adequate number of pharmacists?
3. Not being staff with an adequate number of assistants (e.g., pharmacy assistants, research assistants)?
4. Doing excessive paperwork or documentation (e.g., third-party work, patient records)?
5. Learning to use new technology or automation
6. Having to meet quotas set by the management
7. Having so much work to do that everything cannot be done well?
8. Dealing with difficult co-workers?
9. Disagreeing with other health care professionals in the treatment of patients, ensuring quality of drug products, or provision of drug information?
10. Keeping up with new developments in order to maintain professional competency?
11. Dealing with difficult clients or patients?
12. Possessing inadequate information regarding a patient's medical condition?
13. Feeling ultimately responsible for patient outcomes from drug therapy, drug products, or drug information provided?
14. Fearing that I will make a mistake in treating a patient, in ensuring quality of drug products, or in providing drug information?
15. Delegating previous or new tasks to assistants (e.g., pharmacy assistants, research assistants)?
Control in your work environment
At your practice site, how much control do you have over… Answer category: No control, A little control, Moderate control, A lot of control, Total control, or N/A
16. Your ability to take time from work for non-work activities?
17. The development of workplace policies?
18. The responsibilities delegated to support staff?
19. How workplace problems are solved?
20. The time spent in various work activities?
21. The quality of care, drug product, or drug information provided to patients?
Job Satisfaction
In general, how satisfied are you with… Answer category: Very dissatisfied, Dissatisfied, Neutral, Satisfied, Very Satisfied
22. Your present job when compared to jobs in other organizations?
23. The progress you are making towards the goals you set?
24. The chance your job gives you to do what you are best at doing?
25. Your present job in light of your career expectations?
26. Your present job when you consider the expectations you had when you took the job?
Professional Commitment
In terms of professional commitment… Answer category: Strongly Agree, Disagree, Neutral, Agree, Strongly Agree
27. If I could do it all over again, I would not choose to work in the Pharmacy profession.
28. For me, this is the ideal profession for a life's work.
29. I am disappointed that I ever entered the pharmacy profession.
30. I like this profession too well to give it up.
31. If I could go into a different profession other than pharmacy which paid the same, I would probably do so.
Work-Home Conflict
In terms of work-home conflict… Answer category: Strongly disagree, Moderately disagree, Slightly disagree Neutral, Slightly Agree, Moderately Agree, or Strongly Agree
32. In general, the demands of work do not interfere with my home, family or social life.
33. In general, my work has disadvantages for my home, family or social life.
34. Often, my home, family or social life interferes with my responsibilities at work.
35. Often, my home, family or social life keeps me from spending time to do job or career-related activities.
Organizational Commitment
In terms of organizational commitment… Answer category: Strongly disagree, Moderately disagree, Slightly disagree Neutral, Slightly Agree, Moderately Agree, or Strongly Agree
36. I do not feel like "part of the family" at my organization.
37. I do not feel "emotionally attached" to this organization.
38. This organization has a great deal of personal meaning for me.
39. I do not feel a strong sense of belonging to my organization.

3. Results

The total number of participants who responded to the survey was 321 (13.0%) out of the 2,476 pharmacists contacted. Of these responses, 29 (1.2%) were unusable, with seven not currently practicing the profession, five were practicing in fields not within the scope of the study, four were not in the Philippines, and 13 did not consent to answer the survey. Hence, a total of 292 responses were included in the analysis, corresponding to a usable response rate of 11.8%. The sample size of 368 was not achieved.

The characteristics of the sample respondents were summarized in Tables 3 and 4. In terms of demographics, majority of the respondents were of young age (63.0%), mostly female (83.2%), single (56.2%), with no child (56.5%) and undergraduate degree holders (91.4%). For the work-related variables, almost half (44.5%) of the respondents are practicing in the community. Most of the respondents are working in private organizations (84.3%), work for less than 5 years in current job (62.0%), with staff position (69.5%), and have low-middle salary (51.7%). In the field of practice, those in the distributor field were combined with those in the pharmaceutical industry. Due to very low sample size of pharmacists in the drug information field, the field was not included in the analysis.

The mean scores of the quality of worklife dimensions measured were presented in Table 5. Meanwhile, Table 6 presented a summary of mean scores of quality of worklife dimensions by demographic and work-related variables. The scores of all the respondents were generated for each of the six dimensions: stress in work environment, control in work environment, job satisfaction, professional commitment, work-home conflict, and organizational commitment. Statistically significant results included the following: (1) stress varied according to the number of children; (2) control and (3) job satisfaction varied with age, civil status, number of children, years of practice in current job, or salary; (4) professional commitment varied with civil status, number of children, job position, or salary; and (5) organizational commitment varied with age, degree, civil status, number of children, years of practice in current job, or salary.

Table 3. Demographics of respondents.

Characteristic	n	Responses (%)
Sex		
Female	243	83.22
Male	49	16.78
Age (years)		
21–35 (Young)	184	63.01
36–55 (Middle-aged)	95	32.53
56 and above (Old-aged)	13	4.45
Highest degree attained		
Undergraduate or Bachelor's Degree	267	91.44
Master's Degree	19	6.51
Doctorate Degree	6	2.05
Civil status		
Single	164	56.16
Married	118	40.41
Separated/Divorced	6	2.05
Widowed	4	1.37
Number of children		
0 (None)	165	56.51
1–2 (Few)	88	30.14
3 or more (Many)	39	13.36

Table 4. Work-related factors of respondents.

Characteristic	n	Responses (%)
Current field of practice		
Academe	17	5.82
Community	130	44.52
Government	10	3.42
Hospital	74	25.34
Pharmaceutical Industry	37	12.67
Regulatory	24	8.22
Type of institution or organization		
Government	46	15.75
Private	246	84.25
Current job position		
Owner	40	13.70
Manager	49	12.78
Staff	203	69.52
Years of practice in current job		
≤5	181	61.99
6–15	65	22.26
16–30	40	13.70
≥31	31	2.05
Salary		
less than Php 10,000 (Low)	14	4.79
Php 10,000–20,000 (Low-Middle)	151	51.71
Php 20,001–40,000 (Middle)	96	32.88
greater than Php 40,000 (High)	31	10.62

4. Discussion

4.1. Stress

No significant differences in mean stress scores across all demographic and work-related variables were found except the number of children, although One-way ANOVA post-hoc test showed no significant differences between any two groups for the said variable. Consistent with these findings, a study on hospital pharmacists also showed no significance in terms of age and sex (Rothmann and Malan, 2007; Wolfgang, 1988). A previous study showed that the number of children had a negative influence on job stress. In contrast, the same study identified significant differences across practice setting

Table 5. Survey questionnaire used in the study which is adapted from the National Pharmacist Workforce Survey 2014 of the Midwest Pharmacy Workforce Research Consortium.

Stress in your work environment					
In general, how stressful is…	Not at all stressful	Not too stressful	Somewhat stressful	Highly stressful	N/A
1. Being interrupted by phone calls or people while performing job duties?	38 (13.0%)	124 (42.5%)	106 (36.3%)	21 (7.2%)	3 (1.0%)
2. Not being staffed with an adequate number of pharmacists?	24 (8.2%)	60 (20.6%)	96 (32.9%)	83 (28.4%)	29 (9.9%)
3. Not being staff with an adequate number of assistants (e.g., pharmacy assistants, research assistants)?	19 (6.5%)	60 (20.6%)	102 (34.9%)	85 (29.1%)	26 (8.9%)
4. Doing excessive paperwork or documentation (e.g., third-party work, patient records)?	14 (4.8%)	76 (26.0%)	115 (39.4%)	78 (26.7%)	9 (3.1%)
5. Learning to use new technology or automation	105 (36.0%)	115 (39.4%)	52 (17.8%)	15 (5.1%)	5 (1.7%)
6. Having to meet quotas set by the management	29 (9.9%)	59 (20.2%)	97 (33.2%)	55 (18.8%)	52 (17.8%)
7. Having so much work to do that everything cannot be done well?	18 (6.2%)	79 (27.1%)	101 (34.6%)	79 (27.1%)	15 (5.1%)
8. Dealing with difficult co-workers?	32 (11.0%)	65 (22.3%)	96 (32.9%)	89 (30.5%)	10 (3.4%)
9. Disagreeing with other health care professionals in the treatment of patients, ensuring quality of drug products, or provision of drug information?	23 (7.9%)	67 (23.0%)	105 (36.0%)	58 (19.9%)	39 (13.4%)
10. Keeping up with new developments in order to maintain professional competency?	65 (22.3%)	112 (38.4%)	88 (30.1%)	26 (8.9%)	1 (0.3%)
11. Dealing with difficult clients or patients?	14 (4.8%)	73 (25.0%)	123 (42.1%)	63 (21.6%)	19 (6.5%)
12. Possessing inadequate information regarding a patient's medical condition?	14 (4.8%)	68 (23.3%)	106 (36.3%)	52 (17.8%)	52 (17.8%)
13. Feeling ultimately responsible for patient outcomes from drug therapy, drug products, or drug information provided?	22 (7.5%)	87 (29.8%)	105 (36.0%)	37 (14.0%)	41 (12.7%)
14. Fearing that I will make a mistake in treating a patient, in ensuring quality of drug products, or in providing drug information?	22 (7.5%)	82 (28.1%)	102 (34.9%)	47 (16.1%)	39 (13.4%)
15. Delegating previous or new tasks to assistants (e.g., pharmacy assistants, research assistants)?	43 (14.7%)	129 (44.2%)	81 (27.7%)	14 (8.6%)	25 (4.8%)
Control in your work environment					
At your practice site, how much control do you have over…	No control	A little control	Moderate control	A lot of control	Total control	N/A
16. Your ability to take time from work for non-work activities?	8 (2.7%)	53 (18.2%)	111 (38.0%)	65 (22.3%)	54 (18.5%)	1 (0.3%)
17. The development of workplace policies?	36 (12.3%)	43 (14.7%)	104 (35.6%)	55 (18.8%)	53 (18.2%)	1 (0.3%)
18. The responsibilities delegated to support staff?	21 (7.2%)	43 (14.7%)	90 (30.8%)	75 (25.7%)	59 (20.2%)	4 (1.4%)
19. How workplace problems are solved?	6 (2.1%)	48 (16.4%)	110 (37.7%)	70 (24.0%)	58 (19.9%)	0 (0.0%)
20. The time spent in various work activities?	10 (3.4%)	35 (12.0%)	101 (34.6%)	89 (30.5%)	56 (19.2%)	1 (0.3%)
21. The quality of care, drug product, or drug information provided to patients?	7 (2.4%)	27 (9.3%)	69 (23.6%)	98 (33.6%)	64 (21.9%)	27 (9.3%)
Job Satisfaction					
In general, how satisfied are you with…	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
22. Your present job when compared to jobs in other organizations?	14 (4.8%)	24 (8.2%)	81 (27.7%)	114 (39.0%)	59 (20.2)
23. The progress you are making towards the goals you set?	13 (4.5%)	38 (13.0%)	72 (24.7%)	132 (45.2%)	37 (12.7%)
24. The chance your job gives you to do what you are best at doing?	12 (4.1%)	30 (10.3%)	78 (26.7%)	110 (37.7%)	62 (21.2%)
25. Your present job in light of your career expectations?	13 (4.5%)	46 (15.8%)	84 (28.8%)	101 (34.6%)	48 (16.4%)
26. Your present job when you consider the expectations you had when you took the job?	14 (4.8%)	39 (13.4%)	88 (30.1%)	107 (36.6%)	44 (15.1%)

(Mott et al., 2004).

The identified most stressful events identified were not being staffed with an adequate number of assistants (i.e., pharmacy assistants, research assistants), doing excessive paper work or documentation, and not being staffed with an adequate number of pharmacists. These top stressors supported the issue on pharmacists' shortage as recognized by Loquias and Robles (2012).

Table 5. Continued.

Professional Commitment					
In terms of professional commitment…	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
27. If I could do it all over again, I would not choose to work in the Pharmacy profession.	127 (43.5%)	109 (37.3%)	28 (9.6%)	16 (5.5%)	12 (4.1%)
28. For me, this is the ideal profession for a life's work.	11 (3.8%)	15 (5.1%)	78 (26.7%)	107 (36.6%)	81 (27.7%)
29. I am disappointed that I ever entered the pharmacy profession.	154 (52.7%)	104 (35.6%)	26 (8.9%)	6 (2.1%)	2 (0.7%)
30. I like this profession too well to give it up.	21 (7.2%)	22 (7.5%)	57 (19.5%)	107 (36.6%)	85 (29.1%)
31. If I could go into a different profession other than pharmacy which paid the same, I would probably do so.	78 (26.7%)	86 (29.5%)	83 (28.4%)	35 (12.0%)	10 (3.4%)

Work-Home Conflict							
In terms of work-home conflict…	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
32. In general, the demands of work do not interfere with my home, family or social life.	11 (3.8%)	43 (14.7%)	69 (23.6%)	39 (13.4%)	36 (12.3%)	55 (18.8%)	39 (13.4%)
33. In general, my work has disadvantages for my home, family or social life.	62 (21.2%)	45 (15.4%)	44 (15.1%)	41 (14.0%)	63 (21.6%)	26 (8.9%)	11 (3.8%)
34. Often, my home, family or social life interferes with my responsibilities at work.	70 (24.0%)	53 (18.2%)	55 (18.8%)	55 (18.8%)	41 (14.0%)	13 (4.5%)	5 (1.7%)
35. Often, my home, family or social life keeps me from spending time to do job or career-related activities.	65 (22.3%)	54 (18.5%)	49 (16.8%)	47 (16.1%)	46 (15.8%)	26 (8.9%)	5 (1.7%)

Organizational Commitment							
In terms of organizational commitment…	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
36. I do not feel like "part of the family" at my organization.	126 (43.2%)	62 (21.2%)	45 (15.4%)	38 (13.0%)	16 (5.5%)	4 (1.4%)	1 (0.3%)
37. I do not feel "emotionally attached" to this organization.	94 (32.2%)	62 (21.2%)	59 (20.2%)	46 (15.8%)	22 (7.5%)	7 (2.4%)	2 (0.7%)
38. This organization has a great deal of personal meaning for me.	9 (3.1%)	4 (1.4%)	20 (6.9%)	64 (21.9%)	50 (17.1%)	71 (24.3%)	74 (25.3%)
39. I do not feel a strong sense of belonging to my organization.	117 (40.1%)	61 (20.9%)	48 (16.4%)	43 (14.7%)	14 (4.8%)	7 (2.4%)	2 (0.7%)

Addressing these stressors may be helpful in enhancing professional commitment based on the resulting negative correlation between these two dimensions ($r = –0.1269$, $p = 0.0301$). Correspondingly, the study of Gaither (1999) suggested that an increase in one's commitment to the profession of pharmacy can reduce the negative effects of job stress.

4.2. Control in the work environment

The three instances wherein the respondents have least control over were "the development of workplace policies" (2.16 ± 1.24), "ability to take time from work for non-work activities" (2.36 ± 1.06), and on "responsibilities delegated to support staff" (2.38 ± 1.18). These findings were logical in the sense that these aspects of the work environment are mostly controlled by those with higher job positions, while majority (69.52%) of the respondents in this study were staff.

The results revealed that younger pharmacists had significantly lower control mean scores than middle-aged or old-aged pharmacists (One-way ANOVA post-hoc test, $p = 0.036$). Moreover, pharmacists having ≤ 5 years of work experience and pharmacists with 6–15 years of work experience had significantly lower control mean scores than those with ≥ 31 years of experience ($p = 0.003$ and $p = 0.048$ respectively). In addition, pharmacists with low, low-middle, or middle salaries had significantly lower control mean scores than those with high salaries ($p = 0.003$, $p = 0.002$ and $p = 0.024$ respectively).

Correspondingly, staff pharmacists had significantly lower control scores than manager ($p < 0.001$) or owner pharmacists ($p < 0.001$). These may be attributed to having a higher job position, which is consistent with the results of this study that staff significantly scored lower on control than managers and owners. These findings may denote that being in the same job for ≥ 31 years may lead to the promotion of pharmacists to managerial positions, thus having more control over the work environment. Having higher job position may in turn mean higher salary, which is consistent with the results indicating that those with high salaries have higher control than those with low, low-middle or middle salaries.

Furthermore, single pharmacists had significantly lower control scores than married ones ($p < 0.001$). Likewise, those without children had significantly lower control scores than

Table 6. Summary of quality of worklife dimensions by demographic and work-related variables.

Factor (Highest Possible Score)	Stress [a] (3)	Control [b] (4)	Job Satisfaction [c] (5)	Professional Commitment [c] (5)	Work-Home Conflict [d] (7)	Organizational Commitment [d] (7)
Mean Respondent Score (Mean Scores ± SD)	1.64 ± 0.54	2.42 ± 0.85	3.52 ± 0.93	3.93 ± 0.71	3.34 ± 1.18	5.53 ± 1.12
Sex						
Female	1.63 ± 0.55	2.43 ± 0.88	3.54 ± 0.89	3.94 ± 0.69	3.34 ± 1.16	5.53 ± 1.13
Male	1.66 ± 0.51	2.37 ± 0.72	3.40 ± 1.13	3.88 ± 0.78	3.31 ± 1.31	5.54 ± 1.06
Age						
21–35 (Young age)	1.67 ± 0.51	2.29 ± 0.83*	3.31 ± 0.97*	3.91 ± 0.69	3.42 ± 1.13	5.34 ± 1.14*
36–55 (Middle age)	1.57 ± 0.59	2.56 ± 0.85*	3.85 ± 0.76*	3.95 ± 0.74	3.26 ± 1.22	5.82 ± 0.99*
56 and above (Old age)	1.66 ± 0.68	3.12 ± 0.73*	3.95 ± 0.75*	4.02 ± 0.69	2.69 ± 1.50	6.23 ± 0.94*
Highest degree attained						
Undergraduate or Bachelor degree	1.62 ± 0.53	2.40 ± 0.86	3.48 ± 0.94	3.92 ± 0.70	3.34 ± 1.19	5.48 ± 1.12*
Master's degree	1.80 ± 0.70	2.55 ± 0.78	3.88 ± 0.77	3.98 ± 0.79	3.34 ± 1.14	6.13 ± 0.99*
Doctorate degree	1.67 ± 0.70	2.68 ± 0.76	3.80 ± 1.12	4.17 ± 0.98	3.25 ± 1.16	6.13 ± 0.72
Civil status						
Single	1.69 ± 0.50	2.23 ± 0.80*	3.31 ± 0.97*	3.79 ± 0.71*	3.39 ± 1.15	5.28 ± 1.13*
Married	1.57 ± 0.59	2.67 ± 0.86*	3.77 ± 0.84*	4.08 ± 0.67*	3.29 ± 1.23	5.80 ± 1.03*
Separated/Divorced	1.27 ± 0.74	2.80 ± 0.76	3.73 ± 0.41	4.47 ± 0.56	3.21 ± 1.09	6.42 ± 0.49*
Widowed	1.91 ± 0.25	2.17 ± 1.19	4.35 ± 0.25*	4.20 ± 0.65	2.75 ± 1.62	6.44 ± 0.97
Number of children						
0 (None)	1.71 ± 0.68	2.22 ± 0.68*	3.30 ± 0.99*	3.81 ± 1.33*	3.38 ± 1.31	5.32 ± 1.46*
1–2 (Few)	1.54 ± 0.60	2.65 ± 0.60*	3.73 ± 0.85*	4.05 ± 0.87*	3.26 ± 0.66	5.63 ± 1.29*
3 or more (Many)	1.57 ± 0.57	2.72 ± 0.57*	3.93 ± 0.94*	4.15 ± 0.65*	3.33 ± 0.59	6.22 ± 1.18*
Current field of practice						
Academe	1.79 ± 0.74	2.13 ± 0.55	3.75 ± 0.78	4.00 ± 0.96	3.40 ± 1.17	5.85 ± 1.05
Community	1.58 ± 0.54	2.61 ± 0.83	3.53 ± 0.98	3.96 ± 0.72	3.39 ± 1.24	5.54 ± 1.16
Government	1.64 ± 0.46	2.18 ± 0.69	3.92 ± 0.57	4.06 ± 0.60	3.35 ± 1.02	5.33 ± 1.20
Hospital	1.71 ± 0.53	2.25 ± 0.90	3.44 ± 0.85	3.88 ± 0.66	3.29 ± 1.19	5.59 ± 1.07
Pharmaceutical Industry	1.63 ± 0.51	2.27 ± 0.86	3.28 ± 1.03	3.82 ± 0.62	3.44 ± 1.11	5.45 ± 1.09
Regulatory	1.64 ± 0.52	2.44 ± 0.84	3.69 ± 0.95	3.98 ± 0.79	3.00 ± 1.06	5.30 ± 1.09
Type of institution or organization						
Government	1.57 ± 0.53	2.14 ± 0.90	3.59 ± 0.85	3.88 ± 0.63	3.35 ± 1.15	5.55 ± 1.08
Private	1.65 ± 0.54	2.47 ± 0.83	3.50 ± 0.95	3.94 ± 0.72	3.33 ± 1.19	5.53 ± 1.13
Current job position						
Owner	1.58 ± 0.51	3.16 ± 0.70*	4.10 ± 0.79*	4.21 ± 0.63*	3.61 ± 1.03	5.73 ± 1.04
Manager	1.71 ± 0.47	2.78 ± 0.65*	3.71 ± 0.99*	3.88 ± 0.79	3.44 ± 1.27	5.63 ± 1.10
Staff	1.63 ± 0.56	2.18 ± 0.81*	3.36 ± 0.89*	3.89 ± 0.69*	3.26 ± 1.19	5.47 ± 1.14
Years of practice in current job						
≤ 5	1.66 ± 0.52	2.27 ± 0.79*	3.33 ± 0.94*	3.90 ± 0.71	3.31 ± 1.14	5.39 ± 1.14*
6–15	1.59 ± 0.56	2.56 ± 0.88*	3.69 ± 0.91*	3.97 ± 0.69	3.37 ± 1.17	5.61 ± 1.07
16–30	1.62 ± 0.54	2.67 ± 0.90	3.89 ± 0.67*	3.96 ± 0.75	3.44 ± 1.33	5.93 ± 1.01*
≥ 31	1.67 ± 1.00	3.56 ± 0.34*	4.63 ± 0.37*	4.10 ± 0.63	3.21 ± 1.74	6.33 ± 0.70
Salary						
Less than Php 10,000 (Low)	1.60 ± 0.41	1.95 ± 0.89*	2.76 ± 1.03*	3.40 ± 0.68*	3.20 ± 1.28	5.30 ± 1.29
Php 10,000–20,000 (Low-middle)	1.66 ± 0.53	2.33 ± 0.82*	3.25 ± 0.91*	3.93 ± 0.68	3.31 ± 1.21	5.32 ± 1.13*
Php 20,001–40,000 (Middle)	1.58 ± 0.57	2.44 ± 0.84*	3.86 ± 0.76*	3.97 ± 0.72*	3.34 ± 1.19	5.81 ± 1.08*
Greater than Php 40,000 (High)	1.71 ± 0.54	2.97 ± 0.77*	4.10 ± 0.83*	4.05 ± 0.75*	3.51 ± 1.03	5.80 ± 0.84

[a] Scale is as follows: 0 = not stressful, 1 = not too stressful, 2 = somewhat stressful, and 3 = highly stressful
[b] Scale is as follows: 0 = no control, 1 = a little control, 2 = moderate control, 3 = a lot of control, and 4 = total control
[c] A 1- to 5-point scale was used, 1 representing low and 5 representing high. Scores > 3 mean "positive response," < 3 mean "negative response," 3 mean neutral response"
[d] A 1- to 7-point scale was used, 1 representing low and 7 representing high. Scores > 4 mean "positive response," < 4 mean "negative response," 4 mean neutral response"
* p-value < 0.05

those with few ($p < 0.001$) or many ($p = 0.003$). This shows that the personal experiences and status of pharmacists may affect their actual or perceived control over their work environment.

Control scores were also found to have low positive linear correlation with those of satisfaction ($r = 0.3890$, $p < 0.0001$). This is consistent with research studies that found a positive association between high work control and job satisfaction (Greenberger et al., 1989; MacLaney and Hurrell, 1988; O'Neill, 1994; Sargent and Deborah, 1988). That is, an individual with higher work control could have higher job satisfaction. Moreover, control scores had been found to have low positive linear correlation with professional commitment ($r = 0.2372$, $p < 0.0001$) and organizational commitment ($r = 0.2679$, $p < 0.0001$). This means that respondent pharmacists who have high control are more likely to be committed to the profession and the organization.

On the other hand, the findings showed a very low negative correlation between control and work-home conflict ($r = –0.1730$, $p < 0.0001$), which may mean that having good control in the work environment could prevent work spillovers into home, thus lowering work-home conflict.

4.3. Job Satisfaction

This study showed that job satisfaction scores were found to be significantly lower in young pharmacists than middle-aged or old-aged pharmacists (Kruskal Wallis H Test, $p < 0.0001$ and $p = 0.0258$ respectively). This is consistent with results of previous studies indicating that age positively affects job satisfaction (Rahim, 1982), wherein older pharmacists experience the greatest job satisfaction (Gebretekle and Fenta, 2013; Hardigan and Carvajal, 2007; Lau et al., 2011; Liu and White, 2011; Noel et al., 1982).

A study conducted by Mott et al. (2004) reported that pharmacists who are married have higher job satisfaction relative to those who are not. Correspondingly, the study showed that single pharmacists have significantly lower job satisfaction scores than married ($p = 0.0003$) or widowed pharmacists ($p = 0.0390$). De Los Angeles (1965) stated that marriage is used as measure of fertility in the Philippines. Incidentally, results of this study revealed that pharmacists with no children were reported to have significantly lower job satisfaction than those with few ($p = 0.0015$) or many ($p = 0.0001$) children. These findings may be explained by the fact that marriage and having children increase an individual's responsibilities, therefore increasing "his or her" job satisfaction because a steady job is more valuable and important to "him or her" (Azim et al., 2013).

Furthermore, lower job satisfaction scores were observed among staff pharmacists compared to manager ($p = 0.0103$) or owner ($p < 0.001$) pharmacists. Studies on determining job position as a significant determinant of job satisfaction are somewhat contradictory. Mott et al. (2004) reported that staff pharmacists have higher job satisfaction than manager pharmacists as opposed to that of Liu and White (2011) who stated that job position, either manager or staff pharmacist, is not a significant factor in determining job satisfaction. Nonetheless, it may be inferred from this study that variations in job satisfaction of the respondent-pharmacists may be attributed to variations in job position. This may be supported by the fact that higher positions in organizations have corresponding higher compensation. In this study, pharmacists with low salary had lower job satisfaction than those with middle or high salaries (One-way ANOVA, $p < 0.001$ and $p < 0.001$ respectively), while those with low-middle salary had lower job satisfaction than middle ($p < 0.001$) or high ($p < 0.001$) salaries.

Kruskal-Wallis H Test showed that pharmacists practicing in their current job for ≤ 5 years had significantly lower job satisfaction scores compared to those practicing for 6–15 ($p = 0.0376$), 16–30 ($p = 0.0016$) or ≥ 31 years ($p = 0.0012$). Moreover, those practicing for 6–15 years had lower job satisfaction scores than those practicing for ≥ 31 years ($p = 0.0286$). As supported by previous studies, job satisfaction tends to be higher for those pharmacists who are employed longer in their jobs as opposed to those newly-employed ones (Liu and White, 2011; McCann et al., 2009; Noel et al., 1982).

Lastly, job satisfaction was found to have low positive correlation with professional commitment ($r = 0.3679$, $p < 0.0001$) and organizational commitment ($r = 0.3834$, $p < 0.0001$). This is in line with the study conducted by Savery and Syme (1996) that reported increasing job satisfaction have significant impact on pharmacists' commitment to the organization.

4.4. Professional Commitment

Kruskal-Wallis H Test results showed that married pharmacists ($p = 0.0047$) and those with few ($p = 0.0317$) and many ($p = 0.0047$) children were more professionally committed compared to single pharmacists and those with no children, respectively. This implies that those who have more experience in commitment in their personal lives are more likely to be committed to the profession as well. Work-home conflict had a very low negative correlation ($r = –0.1580$, $p < 0.001$) with professional commitment, further supporting that personal experiences may indeed affect professional commitment.

Staff pharmacists were found to have significantly lower professional commitment than owner pharmacists (Kruskal Wallis H Test, $p = 0.0130$). Pharmacists with a low salary were less professionally committed than those receiving middle or high salary (One-way ANOVA, $p = 0.046$ and $p = 0.041$ respectively). These results show that rank in the organization, as well as salary may also affect a pharmacist's commitment to the profession, and not just to the organization. This is in conjunction with the positive correlation ($r = 0.3834$, $p < 0.001$) observed between professional and organizational commitment.

4.5. Work-Home Conflict

There were no significant differences in the mean work-home conflict scores across all demographic variables. A

study by Mott et al. (2004) indicating that there are no significant differences in the home-work conflict level of pharmacists across demographic variables supported these results. Furthermore, these results strengthened the information gathered from the 2014 National Pharmacy Workforce Survey stating that home-work conflict scores between males and females, and years of experience are comparable.

On the other hand, Mott et al.'s (2004) study reported that pharmacists practicing in chain pharmacies have the highest levels of work-home conflict and that staff pharmacists reported less work-home conflict than manager pharmacist, whereas no such differences were observed in this study. This could be explained by differences in family and work culture in the United States and in the Philippines.

The results also showed that home-work conflict was inversely correlated ($r = –0.1799$, $p < 0.0001$) with organizational commitment. This is consistent with the results of a study by Netemeyer et al. (1996).

4.6. Organizational Commitment

This study showed that organizational commitment scores were lower in young pharmacists than middle-aged or old-aged pharmacists (Kruskal Wallis H Test, $p = 0.0012$ and $p = 0.0212$ respectively) which are consistent with previous studies indicating that organizational commitment is positively related to age (Kong et al., 1992; Savery and Syme, 1996). This may mean that old-aged pharmacists are more likely to be committed to the organization compared to the younger ones which may be attributed to that fact that the former may have more job opportunities and the latter may be more concerned about job security.

Furthermore, pharmacists with Master's degrees were reported to be more committed to the organization than those with bachelor's degrees ($p = 0.0223$). In line with this, Salami (2008) reported that it is likely that employees with high educational qualifications occupy higher positions and hence expected to have high level of commitment to the organization. However, this finding contradicts the study of Kong et al. (1992) that indicated that respondents with Ph.D. degree are reported to have lower commitment to their organization compared to those without Ph.D. The inconsistency may be due to the difference in the sample populations (i.e., pharmaceutical scientists against pharmacists) and geographical location and time period of the conduct of the researches.

In addition, the study of Salami (2008) on demographic and psychological factors predicting organizational commitment reported that workers who are married were more committed than individuals who are single. This is consistent with the results of this study showing that married ($p = 0.0004$) or widowed ($p = 0.0467$) pharmacists were more committed to the organization than the single ones. Furthermore, pharmacists in this study with no children had lower organizational commitment scores than those with few ($p = 0.0387$) or many ($p < 0.0001$) children. It was also found that those with few children had organizational commitment scores lower than those with many ($p = 0.0105$) children. This may be attributed to the fact that pharmacists who have commitments to a partner, or a family tend to have more financial needs, and thus have a higher commitment to the organization, than those who do not have such commitments.

This study found that pharmacists with ≤ 5 years of practice in the current job were less committed to the organization relative to those with 16–30 years in practice ($p = 0.0147$). This is supported by a study by Savery and Syme (1996), that showed that as the length of time in the present job increases, organizational commitment grows. Hence, those with higher commitment are more likely to stay longer within the organization.

Moreover, this study showed that pharmacists with low-middle income had lower organizational commitment than those with middle income (One-way ANOVA, $p = 0.010$). This is supported by a study of Kong et al.(1992) which reported that higher salary among pharmaceutical scientists has significant effect on organizational commitment.

4.7. Conclusion

This study provided an overview of the quality of worklife of respondent-pharmacists in the Philippines, in terms of the following dimensions: (1) stress, the respondent-pharmacists reported their experiences in the work environment as not too stressful; (2) control, the respondent-pharmacists reported having moderate control in their work environment; (3) job satisfaction, the respondent-pharmacists reported a positive response; (4) professional commitment, also a positive response; (5) work-home conflict, respondent-pharmacists reported negative work-home conflict; and (6) organizational commitment, a positive response. Logical correlations between some of these dimensions existed. There were variations in the mean dimension scores that may be attributed to the demographic and work-related variables. Variations in stress may be attributed to variations in number of children. For variations in control and job satisfaction: age, civil status, number of children, current job position, years of practice in current job, or salary. For variations in professional commitment: civil status, number of children, job position, or salary. For variations in organizational commitment: age, degree, civil status, number of children, years of practice in current job, or salary. No variations in demographic and work-related variables were found to be attributed to variations in control. In addition, this study provided insights on the specific stress or control events that mostly affect the respondent-pharmacists. These findings may be helpful for organizations to better manage the workforce, enhance its overall effectiveness, and ensure public safety and quality patient care. Ultimately, the findings from this study may serve as baseline information on the

quality of worklife of pharmacists in the Philippines and may pave the way for future workforce researches, geared towards the improvement of the profession in the country.

4.8. Limitations

Since sample size was not achieved, there was reduced generalizability of the key findings of the study, as well as a possibility that the significant differences found were due to chance. There may also be non-response bias wherein respondents differ significantly from non-respondents. More specifically, bias on social desirability cannot be completely ruled out, despite assurance of confidentiality, especially since the survey asks about professional and organizational commitment.

Although the survey questionnaire was pilot tested, it was limited to a small subset of the sample population. Also, face validity through checking by a psychometrician and principal components analysis had not been performed. These, in turn, would reduce the validity of the questionnaire in assessing the quality of worklife of Filipino pharmacists.

The mean scores presented in the results for the different dimensions were arbitrary and did not have any set interpretations. While comparisons were made between such means, and correlations were measured, these results cannot be used to comment on the actual status of each of these dimensions for Filipino pharmacists.

The survey questionnaire was self-administered which may have caused some questions to be interpreted differently from what is intended.

Moreover, it was administered online requiring the use of internet connection and technological advances. With this, geographical and technological inaccessibility may have hindered some respondents to answer the survey. Since the study only utilized an online survey, some of the potential respondents were not able to accomplish the survey due to inaccessibility to an internet connection in their area. This may have caused an exclusion bias on respondents.

At the time of the study, the most updated database available was utilized as sampling frame. Nevertheless, since some of the pharmacists changed fields of practice at the time of the data collection of the study, comparison of the QWL dimensions scores among the different fields was possible but could not be considered representative of each field. Still, the data on other demographic and work-related variables provided insight on the sample population, revealing significant differences on QWL dimension scores. In addition, correlations were discovered between the dimensions. Ultimately, this data serves as baseline information on the quality of worklife of pharmacists in the Philippines and may pave the way for future workforce research, geared specifically towards the improvement of the profession in the country.

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