

A Cross Sectional Observational Study to Assess Pharmacists Perspective and General Health Wellbeing During COVID-19 Pandemic in Saudi Arabia

Nagwa Ibrahim^{1*}, Asma Almuhsin², Raghad Alkhatabi³, Maryam Almulaifi¹, Ali Alrumaih⁴

How to cite this article: Ibrahim N, Almuhsin A, Alkhatabi R, Almulaifi M, Alrumaih A. A Cross Sectional Observational Study to Assess Pharmacists Perspective and General Health Wellbeing During COVID-19 Pandemic in Saudi Arabia. *Glob J Med Therap.* 2021;3(3):1-6. <https://doi.org/10.46982/gjmt.2021.105>

Copyright: This is an open access journal published under the Creative Commons Attribution Non-Commercial License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction, provided the original work is properly cited and its authors credited.

Abstract— Introduction: COVID-19 pandemic impacted all countries negatively. Regulatory bodies in Saudi Arabia and worldwide set a firm policies and guidelines to protect their nationals and residents from the virus. Pharmacists play a major role in health care. This study aims to assess pharmacists' perspective and general health wellbeing during COVID-19 pandemic in Saudi Arabia. **Methods:** We conducted a cross sectional observational study using a quantitative survey-based methodology. Data was collected from May to July 2020. **Results:** We were able to enroll 381 pharmacists working in different practice settings as governmental hospitals, healthcare centers, private hospitals and community pharmacies. The acceptable knowledge level score is 13 (60%) that has been reached by about 37% of participants. Male and female had similar scores. Level of knowledge among regions was variable, southern region scored the least with a mean score of 12.89 ± 3.91 and eastern region scored the highest level with a mean score of 15.07 ± 2.86 . There was a significant correlation between knowledge level, region of residency and level of experience. The maximum total awareness score was 7, the mean score was 5.18 ± 1.65 . There was a statistically significant correlation between awareness level and the region of residency variable. The general health questions section included 9 questions. The minimum score was 9, the maximum was 36 and the mean score was 17.51 ± 7.34 . The higher the score indicate the worsening of the general health. There is a strong correlation between gender, experience and the general health wellbeing. Men had better general health compared to women $p < 0.001$ and participants with range of experience 6-10 years had a lower level of general health. **Conclusion:** COVID-19 still has a negative impact worldwide. Maintaining awareness and education is essential to keep the protective measures as possible. In addition, there is a need to address the impact of COVID-19 on pharmacist's mental health to act accordingly.

Keywords: COVID-19; Pandemic; Pharmacists; Health wellbeing; Saudi Arabia.

1. INTRODUCTION

The novel corona virus COVID-19 pandemic was first reported in Wuhan, China December 2019. It continued to spread worldwide dramatically with development of new strains. On July 3, 2021 the global number of subjects affected is 184,033,886, number of deaths is 3,983,271 and the recovered patients are 168,425,378 [1]. In Saudi Arabia the total cases tell 3 July 2021 are 491,612, total deaths are 7,863 and total recovered are 471,550 [1].

Countries around the world started preparedness and response efforts to limit the spread of COVID-19. Saudi Arabia was one of the first countries anticipated the danger of the disease and started precautionary and preventative measures. These actions included activating Command and Control Centers (CCCs), firm actions taken to impose social distancing, strengthen key capabilities and resources on several fronts for virus containment, prevention, preparedness, detection, and treatment. Some of these measures included the suspension of Umrah, face to face education, and all international and domestic flights; the launch of Mass field testing; and the expansion of laboratory capacity to conduct over nine million COVID-19 tests. Other actions included a partial then total curfew in various regions of the Kingdom, and the decision to treat all citizens, legal and illegal residents for free without any consequences. In addition to development of national guidelines with the latest international scientific evidence-based information to cover all the possible scenarios as well as established a campaign called "We all are responsible" by Saudi Ministry of Health (MOH) aimed to raising the public awareness level and public health [2-5].

Pharmacists play a major role in healthcare. This study aims to measure pharmacists perspective on COVID-19 pandemic as well as their health wellbeing throughout the pandemic in Saudi Arabia.

¹Department of pharmaceutical services, Prince Sultan Military Medical City, Riyadh, Saudi Arabia.

²Deputyship of Therapeutic Services, Ministry of Health, Riyadh, Saudi Arabia

³Pharmacy Services Department, Ad Diriyah Hospital, Riyadh, Saudi Arabia.

⁴Pharmaceutical Care Department Medical Services Directorate, Ministry of Defense, Riyadh, Saudi Arabia.

*Corresponding Author: Nagwa Ibrahim, Pharm D, PhD.

Email address: nag_ibrahim@hotmail.com

Received: 13 July 2021

Accepted: 17 August 2021

Published: 23 August 2021

2. MATERIALS AND METHODS

2.1 Study Design

This is a cross-sectional, observational study targeting pharmacists from different practices in Saudi Arabia.

2.2 Survey Development

We used a quantitative survey-based methodology. The survey sections developed by the research team.

2.3 Survey Sections

The survey had total of 56 questions that divided into sections that include: 1) demographic data, 2) General Information about COVID-19, 3) Protective Measures, 4) Supplies shortage during the outbreak, 5) COVID-19 Guidelines and regulation awareness, 6) Education, 7) Prescription refill /patient counseling, 8) Staff general health and wellbeing.

Answers varied based on the type of questions such as yes/no/I don't know or to choose from planned answers. For the general Health and wellbeing section, we used the forced Likert-type scale from 1-4 (1=not at all, 4=all the time). The total score for this scale ranged from 9-36.

2.4 Sample Size

According to the Saudi MOH website, the total number of pharmacists is about 29,125(4) We used the online sample size calculator Raosoft®, Inc with margin of error of 5%, confidence level of 95%, and a response distribution of 50%, the minimum recommended sample size is 380 participants.

2.5 Validation

We used the content and face validity. The questionnaire was sent to 18 experienced practicing pharmacists. They suggested some modifications such as avoiding repetition of ideas, make some sentences clearer and adding not applicable or as needed to some questions. We edited the survey accordingly.

2.6 Data Collection

The questionnaire was made available online. Participation in the study was voluntary and confidential. The study duration was from May to July 2020.

2.7 Data Analysis

Statistical Analysis was carried out using IBM (SPSS) version 22. Demographic characteristics were analyzed using descriptive statistics including frequencies and percentages. Continuous variables were summarized using mean and standard deviation (SD), percentages were used for categorical variables. Independent sample t-test and one-way analysis of variance (ANOVA) was used to compare knowledge level among different demographic groups, as well as Chi-square tests. The reliability of internal consistency was calculated using Cronbach's alpha coefficient. The Statistical significance value for all the tests was $P < 0.05$.

3. RESULTS

3.1 Participants' Characteristics

The total study participants were 381 working in different practice settings as governmental hospitals, healthcare centers,

private hospitals and community pharmacies. **Table 1** demonstrates the demographic characteristics.

Table 1. Demographic Characteristics

Variable	N= 381	%
Gender		
Male	228	59.8
Female	153	40.2
Place of residency		
Central region	227	59.6
Northern region	19	5
Southern region	28	7.3
Eastern region	43	11.3
Western region	64	16.8
Qualification		
Diploma	9	2.4
Bachelor's degree	240	63
Master's degree	77	20.2
PhD	42	11
Other	13	3.4
Position		
Pharmacist	220	57.7
Senior pharmacist	69	18.1
Consultant pharmacist	40	10.5
Pharmacy technician	14	3.7
student	10	2.6
Other	28	7.3
Experience (years)		
Still in training	39	10.2
<3	101	26.5
3-5	35	9.2
6-10	71	18.6
11-15	40	10.5
16-20	40	10.5
> 20	55	14.4
Practice settings		
MOH hospital/institution	69	18.1
Governmental non MOH	193	50.7
Private	113	29.7
Other	6	1.6

3.2 Knowledge & Awareness about COVID-19

Knowledge questions included general information such as incubation period, ways of transmission, signs & symptoms, people at high risk and viability of the virus on different surfaces. Total knowledge score for this section was 21, with a mean score of 14.16 ± 3.1 and minimum score of zero. The acceptable knowledge level score is 13 (60%) that has been reached by about 37% of participants. Male and female had similar scores. Level of knowledge around Saudi Arabia was variable, southern region scored the least with a mean score of 12.89 ± 3.91 and eastern region scored the highest level with a mean score of 15.07 ± 2.86 . There was a significant

correlation between knowledge level, region of residency and level of experience (**Table 2**).

About 89% of participants answered that the incubation period for COVID 19 is 14 days, 58.5% were aware that COVID 19 is contagious after the remission of symptoms, 51.1% knew the contagious period, 93.7% knew that COVID 19 could be transmitted from a virus carrier without symptoms. Regarding the ways of transmission, about 50%, 91.6%, 67.5%, 75.6% answered airborne, droplets, vehicle, direct transmission respectively. The response for signs and symptoms as fever, cough, fatigue, shortness of breath were 98.2%, 94.2%, 80.8%, 96.3% respectively. The participants response to the risk factors were as follows 95.5% elderly, 94.8% chronic lung diseases, 77.2% serious cardiac diseases,

Table 2. Demonstrate the variables that were associated with total knowledge level and awareness level.

Variable	Knowledge score out of 21		Awareness score out of 7	
	Mean (SD)	P	Mean (SD)	P
Total	14.16 (3.09)		5.18 (1.65)	
Gender*				
Male	14.14 (3.41)	0.88	5.14 (1.66)	0.63
Female	14.19 (2.56)		5.23 (1.64)	
Residency**				
Central	14.48 (2.74)	<0.01	5.32 (1.58)	0.035
Northern	13.89 (2.62)		4.84 (2.12)	
Southern	12.89 (3.91)		4.32 (1.96)	
Eastern	15.07 (2.86)		5.26 (1.39)	
Western	13.08 (3.75)		5.09 (1.68)	
Experience (years)**				
In training	13.82 (2.79)	0.016	4.79 (1.45)	0.055
< 3	13.58 (2.55)		4.97 (1.75)	
3-5	13.91 (2.81)		5.23 (1.31)	
6-10	14.08 (3.24)		5.18 (1.74)	
11-15	15.23 (2.59)		5.33 (1.21)	
16-20	15.40 (2.22)		5.93 (1.47)	
> 20	14.05 (4.48)		5.15 (1.95)	

92.4% immunocompromised, 33.3% severe obesity with BMI > 40 and 57% kidney diseases. Regarding COVID 19 virus viability the answers were as follows, on aerosols 34.6% answered 3 hours, on stainless 37.8% replied 72 hours, on cardboard paper 24.7% answered 24 hours, on plastic 39.4% knew it is 72 hours, on copper 14.2% knew the correct answer which is 24 hours.

On the other hand, the maximum total awareness score was 7, the mean score was 5.18 ± 1.65 , the minimum score was zero. There was a statistically significant correlation between awareness level and the region of residency variable (**Table 2**).

The personal awareness was presented as follows 40.9% wear the gloves while they are in contact with patients only, 31.2% sometimes. About 50% of participants wear the surgical mask all the time, 90.8% agreed that they should isolate themselves and stay at home if they have fever, cough or other COVID-19 symptoms. Around 70.6% always applied the social distancing 1.5-2 meters, 90.8% always applied regular hand hygiene using sanitizer and washing hands, 82.2% always avoid direct contact, 75.3% always ensure regular cleaning

and disinfecting surfaces, 58% always avoid wearing accessories as watches and rings (**Table 2**).

There was a strong correlation between regular cleaning and disinfecting surfaces and the gender $p < 0.001$ as well as between years of experience and avoiding wearing accessories $p < 0.001$ and maintaining distancing $p < 0.004$.

Regarding protective measures by institutions, 63% agreed and 29.7% slightly agreed about the measures taken in the institutions where they work to decrease the spread of COVID-19 among staff and patients. About 59.3% agreed and 31% slightly agreed that they have adequate communication between the leaders and staff about COVID-19 measures. Around 52% of participants always utilize the virtual meetings in the places they work, while 33.1 % sometimes use it. Around half of participants always apply electronic communications as email, while 32.8% use it sometimes. Regarding supply shortage during COVID-19 outbreak, 42%, 26%, 37%, 26.8% had shortage in surgical masks, gloves, hand sanitizer, disinfectant wipes respectively. For medication shortages, 22% had < 5 items shortage, 20% had 5-10 items shortage, 44.6% did not face any shortages. About 66% applied home drug delivery and 62% provided telephone call consultation and counseling to their patients. About 80% used the national guidelines as a resource for COVID-19 and around 50% used institutional guidelines.

3.3 General Health Questions

The general health questions (GHQ) section included 9 questions. The minimum score was 9, the maximum was 36 and the mean score was 17.51 ± 7.34 . The higher the score indicate the worsening of the general health. In this section, there is a strong correlation between gender, experience and the general health presented in **Table 3**. Men had better general health compared to women $p < 0.001$ and participants with range of experience 6-10 years had a lower level of general health. The response to GHQ presented in **Table 4**. Moreover, **Supplementary Table 1** represents the correlation between GHQ and the variables gender & experience.

3.4 Internal Consistency

Cronbach's alpha coefficient was calculated to analyze internal consistency. The alpha value for the entire sample was

Table 3. Variables associated with GHQ score.

Variable	GHQ score out of 36	
	Mean (SD)	P
total	17.51 (7.34)	
Gender*		
Male	16.37 (7.12)	<0.001
Female	19.22 (7.35)	
Residency		
Central	17.65 (7.51)	0.852
northern	18.79 (6.47)	
southern	17.32 (5.52)	
Eastern	17.49 (8.46)	
Western	16.75 (7.01)	
Experience**		
Still in training	17.79 (7.73)	0.01
< 3 years	18.84 (6.85)	
3-5 years	16.80 (7.34)	
6-10 years	18.93 (7.21)	
11-15 years	17.73 (7.99)	
16-20 years	15.40 (7.58)	
> 20 years	14.89 (6.71)	

Table 4. Response to GHQ

Q	1 Not at all		2 sometimes		3 most of the time		4 all the time	
	N	%	N	%	N	%	N	%
I feel down and depressed	124	32.5	143	37.5	71	18.6	43	11.3
I feel tired and have less energy	107	28.1	144	37.8	88	23.1	42	11
I get trouble concentrating at work	152	39.9	124	32.5	77	20.3	28	7.3
I move or speak slowly	210	55.1	89	23.4	60	15.7	22	5.8
I feel nervous, anxious or on edge	155	40.7	106	27.8	73	19.2	47	12.3
I am not able to stop or control worries	182	47.8	107	28.0	51	13.4	41	10.8
I easily get annoyed or irritable	168	44.1	111	29.1	57	15	45	11.8
I feel afraid as if something bad might occur	142	37.3	129	33.9	61	16	49	12.8
My work and family affected	226	59.3	80	21	41	10.8	34	8.9

Table 5. Item-scale analysis of the GHQ-9

Statement	Corrected Item-Total Correlation	Cronbach Alpha if the item is eliminated
1. Down and depressed	0.779	0.933
2. Tired and have less energy	0.766	0.934
3. Trouble concentrating at work	0.749	0.935
4. Moving or speaking slowly	0.746	0.935
5. Feeling nervous, anxious or on edge	0.804	0.932
6. Not being able to stop or control worries	0.834	0.930
7. Easily annoyed or irritable	0.801	0.932
8. Feeling afraid as if something bad might occur	0.755	0.935
9. Did your work and family affected	0.711	0.937
Internal consistency of GHQ-9		
Entire sample	Alpha: 0.941	Standard alpha: 0.940
Men	Alpha: 0.947	Standard alpha: 0.947
Women	Alpha: 0.928	Standard alpha: 0.928

0.94, with a standard Alpha of 0.941. Item-scale correlations ranged from 0.71-0.83, with item 9 being the one with the lowest correlation coefficient (Table 5).

4. DISCUSSION

COVID-19 pandemic affected all the countries worldwide negatively. Regulatory bodies in each country developed policies and guidelines based on the international recommendations from WHO and CDC to prevent the spread of the virus and to protect their nationals and residents as possible. Awareness of healthcare professionals about these recommendations is very important to achieve the national goals. Pharmacists played a major role during COVID-19 pandemic. We focused on pharmacists perspective about COVID-19 pandemic and their general health wellbeing in Saudi Arabia. In the used survey we included several items for assessment. Comparing our results in each section with other studies was difficult as the way of analyzing the data was variables. The obtained results showed that 37% of the participants reached an acceptable level score, which indicate the need for continuous education about COVID-19 to maintain the protective measures. Most of participants used the official websites as COVID-19 information resources such as MOH, CDC, WHO followed by the hospital resources such as emails, brochures and posters. While in Ruwidah Bonyan et al study, the main source of information was social media followed by awareness campaigns then television [13]. Regarding wearing the mask all the time, 50% of our participants did, while 23% did while in contact with patients

only. In the study of Zhong et al [14], 98% always wore the masks and in Emre Kara et al study [12] 72.6% stated that they were not wearing a mask always.

Our obtained results regarding knowledge score and awareness scores were higher in participants with higher experience. These results match with Bonyan et al [13] study and explained that elderly have more fear from the disease compared to younger participants that lead to increased level of practicing preventative measures.

COVID-19 has detrimental impact on the mental health of healthcare workers. Pharmacists have experienced an escalation in many areas of responsibilities that lead to increasing their burden and stress and negatively impacted their mental health and wellbeing. Mena A et al, Kisely S et al and Salari N et al [15-17] reported that there was clinically significant psychological stress among healthcare workers exposed to COVID-19 compared to the control. The most consistent risk factors were increased contact with affected patients, general medical illness, spending a prolonged time in quarantine, and lack of organizational support. In our study the GHQ was significantly less among females. There was a strong correlation between the variables sex and years of experience and GHQ mainly when they were asked about status of down & depressed, tired and have less energy, not able to stop or control worries, easily annoyed or irritable. Males had better general health compared to females. Participants with range of experience 6-10 years had a lower level of general health.

Pharmacy managers have an important role to encourage self-care and provide their staff with resources for better coping. It is important during COVID-19 to address the own need of pharmacists such as providing opportunities to take breaks to relieve pressure, establishing the right staffing levels and skill mix in the pharmacy to support safe and effective patient care.

Our study has variable strengths as we were able to include different information to assess pharmacists perspective. It was not easy to compare all the information with other studies as every study had a different aim and different method for data analysis. This is considered as limitation for our study.

5. CONCLUSION

COVID-19 still has a negative impact worldwide. Maintaining awareness and education is essential to keep the protective measures as possible. In addition, there is a need to address the impact of COVID-19 on pharmacist's mental health to act accordingly.

Conflict of Interest Statement: The authors disclose no conflict of interest.

Author contributions: N.I. had the idea. A.A.M., R.A., M.A., and A.A.R. distributed the survey. N.I., A.A.M., R.A., and M.A. performed the statistical analysis. A.A.M., R.A., and M.A. drafted the manuscript. N.I. and A.A.R. contributed in writing the manuscript. N.I. made substantial contributions to the conception and critically revised the manuscript for important intellectual content. All authors agree to be accountable for the content of the work.

Funding: The authors disclose no funding for this study.

REFERENCES

1. WHO Coronavirus (COVID-19) Dashboard. Accessed 3 July 2021 [WHO Coronavirus \(COVID-19\) Dashboard | WHO Coronavirus \(COVID-19\) Dashboard With Vaccination Data](#)
2. The Kingdom of Saudi Arabia's Experience – in Health Preparedness and Response to COVID-19 Pandemic. Accessed 3 July, 2021. [COVID-19-NATIONAL.pdf \(moh.gov.sa\)](#)
3. COVID-19 Coronavirus Disease Guidelines. Accessed 3 July, 2021. [Coronavirus-Disease-2019-Guidelines-v1.2.pdf \(moh.gov.sa\)](#)
4. World Health Organization Website. Accessed 3 July 2021. <https://www.who.int/home>
5. Ahmad, A., Alkharfy, K.M., Alrabiah, Z. *et al.* Saudi Arabia, pharmacists and COVID-19 pandemic. *J of Pharm Policy and Pract* **13**, 41 (2020). <https://doi.org/10.1186/s40545-020-00243-1>
6. Worldometer – Coronavirus Updates. Accessed 3 July 2021. [Worldometer - real time world statistics \(worldometers.info\)](#)
7. Hussain, R., Dawoud, D. and Babar, Z., 2021. Drive-thru pharmacy services: A way forward to combat COVID-19 pandemic. *Res Social Adm Pharm*. 2021; 17(1), 1920-1924. doi: [10.1016/j.sapharm.2020.07.015](https://doi.org/10.1016/j.sapharm.2020.07.015)
8. Hoti, K., Jakupi, A., Hetemi, D. *et al.* Provision of community pharmacy services during COVID-19 pandemic: a cross sectional study of community pharmacists' experiences with preventative measures and sources of information. *Int J Clin Pharm* **42**, 1197–1206 (2020). DOI: [10.1007/s11096-020-01078-1](https://doi.org/10.1007/s11096-020-01078-1)
9. Zheng SQ, Yang L, Zhou PX, Li HB, Liu F, Zhao RS. Recommendations and guidance for providing pharmaceutical care services during COVID-19 pandemic: A China perspective [published online ahead of print, 2020 Mar 26]. *Res Social Adm Pharm*. 2020;S1551-7411(20)30284-9. <http://doi:10.1016/j.sapharm.2020.03.012>
10. Zaidi, S. and Hasan, S., 2020. Personal protective practices and pharmacy services delivery by community pharmacists during COVID-19 pandemic: Results from a national survey. *Res Social Adm Pharm*. 2021;17(1), 1832-1837. <https://doi.org/10.1016/j.sapharm.2020.04.020>
11. Basheti, I., Nassar, R., Barakat, M., Alqudah, R., Abufarha, R., Mukattash, T. and Saini, B., 2020. Pharmacists' readiness to deal with the coronavirus pandemic: Assessing awareness and perception of roles. *Res Social Adm Pharm*. 2021; 17(3), 514-522 <https://doi.org/10.1016/j.sapharm.2020.04.020>
12. Kara E, Demİrkan K, Ünal S. Knowledge and Attitudes Among Hospital Pharmacists About COVID-19. *Turk J Pharm Sci*. 2020;17(3):242-248. doi:10.4274/tjps.galenos.2020.72325 [TJPS-17-242.pdf \(nih.gov\)](#)
13. Bonyan R, Al-Karasneh AF, El-Dahiyat F, Jairoun AA. Identification of the awareness level by the public of Arab countries toward COVID-19: cross-sectional study following an outbreak. *J Pharm Policy Pract*. 2020; 13:43. <http://doi:10.1186/s40545-020-00247-x>
14. Zhong BL, Luo W, Li HM, Zhang QQ, Liu XG, Li WT, Li Y. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. *Int J Biol Sci*. 2020;16:1745-1752. [ijbsv16p1745.pdf \(nih.gov\)](https://doi.org/10.1186/s40545-020-00247-x)
15. Mena Alrais. Implications of COVID-19 for the mental health of pharmacists. *US Pharm*. 2021; 46(6):25-29. Accessed on 24 July 2021 [Implications of COVID-19 for the Mental Health of Pharmacists \(uspharmacist.com\)](#)

16. Kisely S, Warren N, McMahon L, et al. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. *BMJ*. 2020; 369:m1642. <https://doi.org/10.1136/bmj.m1642>
17. Salari, N., Hosseini-Far, A., Jalali, R. *et al.* Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: a systematic review and meta-analysis. *Global Health* **16**, 57 (2020). <https://doi.org/10.1186/s12992-020-00589-w>

Supplementary Table 1. Correlation between GHQ and the variables gender & experience in each statement

Table 1. Correlation between BQ and the variables Gender or Experience in each statement												
		Gender		P	training N (%)	>3 N (%)	3-5 N (%)	Experience (years)			P	
		Male N (%)	Female N (%)					6-10 N (%)	11-15 N (%)	16-20 N (%)		>20 N (%)
<i>I feel down and depressed</i>												
Q	1	94 (41.2)	30 (19.6)	<0.001	10 (25.6)	17 (16.8)	14 (40)	17 (23.9)	14 (35)	22 (55)	30 (54.5)	<0.001
	2	81 (35.5)	62 (40.5)		16 (41)	43 (42.6)	11 (31.4)	27 (38)	16 (40)	12 (30)	18 (32.7)	
	3	39 (17.1)	32 (20.9)		8 (20.5)	25 (24.8)	8 (22.9)	18 (25.4)	5 (12.5)	2 (5)	5 (9.1)	
	4	14 (6.1)	29 (19)		5 (12.8)	16 (15.8)	2 (5.7)	9 (12.7)	5 (12.5)	4 (10)	2 (3.6)	
<i>I feel tired and have less energy</i>												
Q	1	81 (35.5)	26 (17)	<0.001	11 (28.2)	19 (18.8)	9 (25.7)	19 (26.8)	8 (20)	14 (35)	27 (49.1)	0.002
	2	85 (37.3)	59 (38.6)		12 (30.8)	44 (43.6)	15 (42.9)	18 (25.4)	18 (45)	19 (47.5)	18 (32.7)	
	3	42 (18.4)	46 (30.1)		13 (33.3)	25 (24.8)	9 (25.7)	25 (35.2)	6 (15)	4 (10)	6 (10.9)	
	4	20 (8.8)	22 (14.4)		3 (7.7)	13 (12.9)	2 (5.7)	9 (12.7)	8 (20)	3 (7.5)	4 (7.3)	
<i>I feel trouble concentrating at work</i>												
Q	1	103 (45.2)	49 (32)	0.022	16 (41)	34 (33.7)	13 (37.1)	26 (36.6)	14 (35)	19 (47.5)	30 (54.5)	0.139
	2	74 (32.5)	50 (32.7)		11 (28.2)	34 (33.7)	13 (37.1)	19 (26.8)	15 (37.5)	14 (35)	18 (32.7)	
	3	38 (16.7)	39 (25.5)		9 (23.1)	23 (22.8)	7 (20)	23 (32.4)	6 (15)	3 (7.5)	6 (10.9)	
	4	13 (5.7)	15 (9.8)		3 (7.7)	10 (9.9)	2 (5.7)	3 (4.2)	5 (12.5)	4 (10)	1 (1.8)	
<i>I move or speak slowly</i>												
Q	1	133 (58.3)	77 (50.3)	0.165	23 (59)	53 (52.5)	18 (51.4)	33 (46.5)	22 (55)	25 (62.5)	36 (65.5)	0.596
	2	47 (20.6)	42 (27.5)		9 (23.1)	25 (24.8)	8 (22.9)	20 (28.2)	10 (25)	8 (20)	9 (16.4)	
	3	38 (16.7)	22 (14.4)		4 (10.3)	18 (17.8)	8 (22.9)	15 (21.1)	3 (7.5)	4 (10)	8 (14.5)	
	4	10 (4.4)	12 (7.8)		3 (7.7)	5 (5)	1 (2.9)	3 (4.2)	5 (12.5)	3 (7.5)	2 (3.6)	
<i>I feel nervous, anxious or on edge</i>												
Q	1	107 (46.9)	48 (31.4)	<0.001	18 (46.2)	33 (32.7)	18 (51.4)	21 (29.6)	12 (30)	23 (57.5)	30 (54.5)	0.061
	2	59 (25.9)	47 (30.7)		8 (20.5)	32 (31.7)	8 (22.9)	23 (32.4)	13 (32.5)	8 (20)	14 (25.5)	
	3	47 (20.6)	26 (17)		6 (15.4)	17 (16.8)	7 (20)	18 (25.4)	10 (25)	6 (15)	9 (16.4)	
	4	15 (6.6)	32 (20.9)		7 (17.9)	19 (18.8)	2 (5.7)	9 (12.7)	5 (12.5)	3 (7.5)	2 (3.6)	
<i>I am not able to stop or control worries</i>												
Q	1	127 (55.7)	55 (35.9)	<0.001	17 (43.6)	37 (36.6)	18 (51.4)	31 (43.7)	22 (55)	21 (52.5)	36 (65.5)	0.017
	2	49 (21.5)	58 (37.9)		11 (28.2)	42 (41.6)	7 (20)	17 (23.9)	9 (22.5)	14 (35)	7 (12.7)	
	3	36 (15.8)	15 (9.8)		5 (12.8)	9 (8.9)	7 (20)	16 (22.5)	4 (10)	2 (5)	8 (14.5)	
	4	16 (7)	25 (16.3)		6 (15.4)	13 (12.9)	3 (8.6)	7 (9.9)	5 (12.5)	3 (7.5)	4 (7.3)	
<i>I easily get annoyed or irritable</i>												
Q	1	116 (50.9)	52 (34)	0.006	19 (48.7)	39 (38.6)	18 (51.4)	19 (26.8)	18 (45)	23 (57.5)	32 (58.2)	0.031
	2	63 (27.6)	48 (31.4)		10 (25.6)	30 (29.7)	8 (22.9)	23 (32.4)	14 (35)	11 (27.5)	15 (27.3)	
	3	27 (11.8)	30 (19.6)		4 (10.3)	22 (21.8)	3 (8.6)	18 (25.4)	3 (7.5)	3 (7.5)	4 (7.3)	
	4	22 (9.6)	23 (15)		6 (15.4)	10 (9.9)	6 (17.1)	11 (15.5)	5 (12.5)	3 (7.5)	4 (7.3)	
<i>I feel afraid as if something bad might occur</i>												
Q	1	97 (42.5)	45 (29.4)	0.017	14 (35.9)	30 (29.7)	17 (48.6)	21 (29.6)	18 (45)	18 (45)	24 (43.6)	0.595
	2	77 (33.8)	52 (34)		10 (25.6)	37 (36.6)	10 (28.6)	26 (36.6)	12 (30)	13 (32.5)	21 (38.2)	
	3	32 (14)	29 (19)		9 (23.1)	18 (17.8)	3 (8.6)	15 (21.1)	5 (12.5)	6 (15)	5 (9.1)	
	4	22 (9.6)	27 (17.6)		6 (15.4)	16 (15.8)	5 (14.3)	9 (12.7)	5 (12.5)	3 (7.5)	5 (9.1)	
<i>My work and family affected</i>												
Q	1	136 (59.6)	90 (58.8)	0.391	28 (71.8)	48 (47.5)	24 (68.6)	39 (54.9)	23 (57.5)	28 (70)	36 (65.5)	0.076
	2	49 (21.5)	31 (20.3)		3 (7.7)	28 (27.7)	4 (11.4)	14 (19.7)	10 (25)	8 (20)	13 (23.6)	
	3	27 (11.8)	14 (9.2)		4 (10.3)	16 (15.8)	5 (14.3)	12 (16.9)	2 (5)	1 (2.5)	1 (1.8)	
	4	16 (7)	18 (11.8)		4 (10.3)	9 (8.9)	2 (5.7)	6 (8.5)	5 (12.5)	3 (7.5)	5 (9.1)	

*1= not at all, 2= sometimes, 3= most of the time, 4= all the time.