Texila International Journal of Public Health
ISSN: 2520-3134
DOI: 10.21522/TIJPH.2013.08.03.Art020

Study on Work Pressure, Family Care, and Depression among Managerial Staffs in Selected Pharmaceutical Companies in Lagos Nigeria

Onyeaboh A. Ekwe[1]*, Dora Akinboye[1]
[1]*Department of Public Health, Babcock University, Ilishan Remo, Nigeria*
**Corresponding Author: onyeaboh.ekwe@gmail.com[1]*

Abstract

Background: Work pressure and family work inter-role conflict are concepts that have generated concern as predisposing factors to developing depression among workers. Depression imparts on the quality of life of individuals affected, and has contributed significantly to the global burden of diseases.

Objective: This study sort to assess the level of work pressure, family life, health/wellbeing, and depression among managers working in large pharmaceutical manufacturing companies in Lagos State, Nigeria.

Methodology: A descriptive cross-sectional study of a sample size of 220 respondents, calculated using the modified Cochran formula for determining sample sizes in smaller populations. A 67-item validated Copenhagen Psychosocial Questionnaire II (COPSOQ II)' and The Perceived Stress Scale. (PSS) was used for data collection. Descriptive, correlations, and regression analysis at a 5% confidence level gave answers to the research questions and hypothesis using SPSS version 24.

Results: Results showed a Prevalence of 54.1% for work pressure, 54.8% for family life, 50.7% for health and wellbeing, and 40.9% for depression. Nexus with depression included, family life (r=0.179), stress (r=0.390), cognitive stress (r=0.385), depressive symptoms (r=0.353), burnout (r=0.339), and sleeping troubles (r=0.297). Health / Well-being had significant relationship with work pressure (r=0.342), family life (r=0.368), and depression (r=0.476). Being female (β-0.015; P=0.027) and having worked for long number years in the industry (β=0.043; P=0.015) correlated with depression development among the study population.

Conclusion: The high prevalence of depression and its strong relationship with the implicating variables suggest an intervention to control the rising trend that reduced the respondents' quality of life.

Keywords: *Work pressure, Family life, Health and Well-being, Depressive symptoms, Pharmaceuticals.*

Introduction

Work pressure is a concept that has generated much concern among workers and scholars alike. High work pressure may lead to significant work stress, work disability, less wellbeing, and increased social and economic disadvantage. Family life defined here to mean family work inter-role conflict may be a significant predisposing factor in the perceived causes of depression observed among workers in most cosmopolitan cities around the world, including Lagos. Work-family inter-role conflict and work pressure are many issues that workers face in Lagos. It may affect their wellbeing, mental health, and overall productivity. Depression results from either social, genetic, environmental, psychological, biochemical dispositions, and or a combination of two or more of these factors [1]. The personal and societal burden of depression calls for concern, especially when the proportion of affected people in the population are considered [1, 2].

Studies on work performances that investigated work pressure and depression at the workplace are few. Prevalence within the ranges of 30% - 60% in several industries and work environments were reported for work pressure [3]. Risk factors linked to a work environment, family, and or social environment may trigger depression if not effectively managed. Some studies have independently showed that the responsibilities and expectations of family over work demand negatively influenced many working populations' mental health status [4]. Situations associated with family life that influenced individuals' mental

health were life conditions, socioeconomic indicators, and socio-demographic variables [5]. These research works and many others [6, 7, and 8], invariably suggested that the decreasing mental health status seen among workers may be because of high indecencies of family-work inter-role conflicts.

Depression is a mental health condition that has far-reaching consequences on the quality of life of those affected. The global call of adopting preventive measures will depend on the understanding of how several implicating variables interplay in causing depression and the emerging risk factors among a given population. [9, 10,]. Several factors that causes depression suggest that the etiology is substantially psychosocial [11]. Studies on the effect of psychosocial stress at work and home on anxiety and depression on healthy employed men and women aged between 30-60 years, substantiated that job insecurity and home stress were most strongly associated with depression and anxiety symptoms [12]. Work-family conflict being more predominant with working mothers, [10] equally suggests that inter-role conflict should be unburdened to understand the dynamics of the construct better. On the strength of these, the authors suggested that stress management skills and probably emotional regulations might improve the mental health of female workers.

This research aims to evaluate the relationship work pressure, in addition to family life (FWC &WFC), has on health/wellbeing and depression among managers working in the pharmaceutical manufacturing sectors noted for its high pressure and job demands. Providing evidence that will support the existence of a family–work inter-role conflict, work pressure, and clarity on the dynamics between variables would enable critical evaluation and adoption of preventive initiatives. The specific objectives included evaluating the elements of work pressure, family life defined as family-work inter-role conflict, and analyzing the socio-demographic characteristics consistent with the respondents. This research work used the socio-ecology model as a structure for the conceptual framework. The conceptual framework focused on how the organizational factor (work pressure), interpersonal factor (family life), and intrapersonal factors (demographic factors) interacted to affect the wellbeing and depression among the respondents.

Study population

This study population were managers working in large pharmaceutical manufacturing companies located in Lagos State, Nigeria.

Sample size determination

The sample size was determined using the modified Cochran formula for sample sizes in smaller populations. For calculating the sample size, the modified Cochran Formula for determining sample sizes in smaller populations was used to calculate the sample size for the study.

Here *no* is Cochran's sample size recommendation, which is 385 (for a population of the large sample with a 95% confidence level and a least 5% plus or minus precision) "N" is the population size estimate of 480 Managers and "n"

$$n = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

is the new adjusted sample size. Calculating the target population

$$\frac{385}{1 + \left\lceil \frac{384}{4} \right\rceil} = 214 + 10\% = 235$$

The sample size targeted for this study as defined by the calculation was 235 managers Questionnaires were administered on a total respondent of 250 managers by the researcher. At the end 220 questionnaires were retrieved back and used for the data analysis.

Sampling technique

Purposeful Multistage sampling technique was used for the study. First was the selection of the Pharmaceutical manufacturing companies listed in Lagos state by the Pharmaceutical Association of Nigeria (PSN). The second stage was to select all the manufacturing Pharmaceutical companies that are members of the Pharmaceutical Manufacturing Association of Nigeria (PMG-MAN). Inclusion criteria were that participants should have been in the position of a manager for at least two years; they should be residing in Lagos state, and environs and the company for which the participants are working must be a member of the PMG-MAN. Exclusion criteria were that managers who were not available at the time of data collection, those who did not consent to be participants, and all those that did not meet up with the inclusion criteria were not selected.

Data collection

A 67-item validated Copenhagen Psychosocial Questionnaire II (COPSOQ II)' and The Perceived Stress Scale (PSS) card was used to collect data for this research. Work pressure (quantitative demand, cognitive demand, and workplace/emotional demand) were assessed on a 70-point reference scale. Family life defined as work-family inter-role conflict (WFC) & Family-work inter-role conflict (FWC) were measured on a 60-point reference scale. Health and wellbeing (that captured symptoms of respondents sleeping troubles, burnout, Stress, depressive symptoms, and cognitive Stress) were assessed on a100-point reference scale. The PSS 14 scores were assessed on a five-point of (0) "Never" to (4) "Very often." Possible scores ranged from 0 to 56, with higher scores indicating severe depressive symptoms. A PSS cut-off score of 18 is indicative of "significant" or "moderate" depressive symptoms, and a cut-off of 28 indicates "severe" depression. The instrument pretested with 10% of the sample size from a similar study population, but the actual study population gave a Cronbach alpha of 0.87. Babcock University Health Ethical Review committee (BUHREC) gave Ethical approval for this research work to be conducted. Information about the research and confidentiality statements were part of the written consent form distributed along with the instrument used for this research.

Data analysis

The data collected were entered, recorded, aggregated, and analysed using the statistical package for social sciences (SPPS) version 24. The analysis was done on the result of the data tables to determine the descriptive statistics (mean, frequency, percentages, and standard deviation) of the construct subscales. Correlation and regression analysis gave answers to the research variable relationship and hypothesis at 5% confidence level.

Results and Discussion

This study investigated how work pressure, family life (WFC &FWC), correlated with health/wellbeing and depression among managers working in large pharmaceutical manufacturing companies in Lagos State, Nigeria. Table 1 presents the socio-demographic characteristics of the managers who completed the study. The mean age of the respondents was 41.1years implied that the majority of them were predominantly in their economically active age. 30.9% of the respondents were aged between 35 and 39 years, while 23.2% of the respondents were within the age range of 40 and 44 years.

The majority (79.5%) of the respondents are male, while only about 20% are female. Females, showing lower tilt in favor of more numbers for males, may indicate that females are not very much attracted to the profession, most probably because of the perceived job demands and work pressure associated with the industry.

More than half (70.9%) of the respondents had between 7-15 years of working experience, 16% and 12% had 16-20 years and 21-30 years of service in the profession, respectively—only 0.5% of the respondents had above 31 years of service in the profession.

The mean years of service as a manager for the entire population under study was 6.9 years. Half (51.8%) of the respondents had completed 3-4 years of service as a manager, while 27.3% had worked for 5-9 years, 16% had working experience of above ten as managers in the industry. (See Table 1 for more details)

Table 1. Socio-demographic characteristics

Characteristic	Frequency (n=220)	Percentage (%)
Age		
25-29	2	0.9
30-34	28	12.7
35-39	68	30.9
40-44	51	23.2
45-49	45	20.5
50 and above	26	11.8
Gender		
Male	175	79.5
Female	45	20.5
Marital Status		
Widowed/divorced /Separated	8	3.6
Married	212	96.4
Religion		
Christianity	181	82.3
Islam	33	15.0
Traditional Rel.	2	.9
Others	4	1.8
Ethnicity		
Ibo	59	26.8
Yoruba	93	42.3
Hausa	3	1.4
Others	63	28.6
Years of service in the profession		
7-15	156	70.9
16-20	36	16.4
21-30	27	12.3
31-40	1	.5
Years of service as a manager		
2-4	114	51.8
5-9	60	27.3
10-14	17	7.7
15 and above	18	8.2

Respondents' perception of Work Pressure

The study revealed that the majority of the respondents had a positive perception of 8-items (>50%) out of the 14-items measured as proponents of work pressure that captured information on quantitative demands, cognitive demands, and emotional demands of the respondents (Fig 1). The component of work pressure with the highest mean was the aspect that required that the managers remember a lot of things ($\bar{x}$=3.67±0.48, 73.3.). Severe work pressures included working very fast ($\bar{x}$=3.06±0.80), keeping the eyes on lots of things while working ($\bar{x}$=3.27 ±0.76), work requires making difficult decisions ($\bar{x}$=3.11±0.73), and work demands one to be good at coming up with new ideas ($\bar{x}$=3.55± 0.54). Total work pressure as a complete construct corresponded to a prevalence of 54.1 (see Fig 1for more details).

Texila International Journal of Public Health
ISSN: 2520-3134
DOI: 10.21522/TIJPH.2013.08.03.Art020

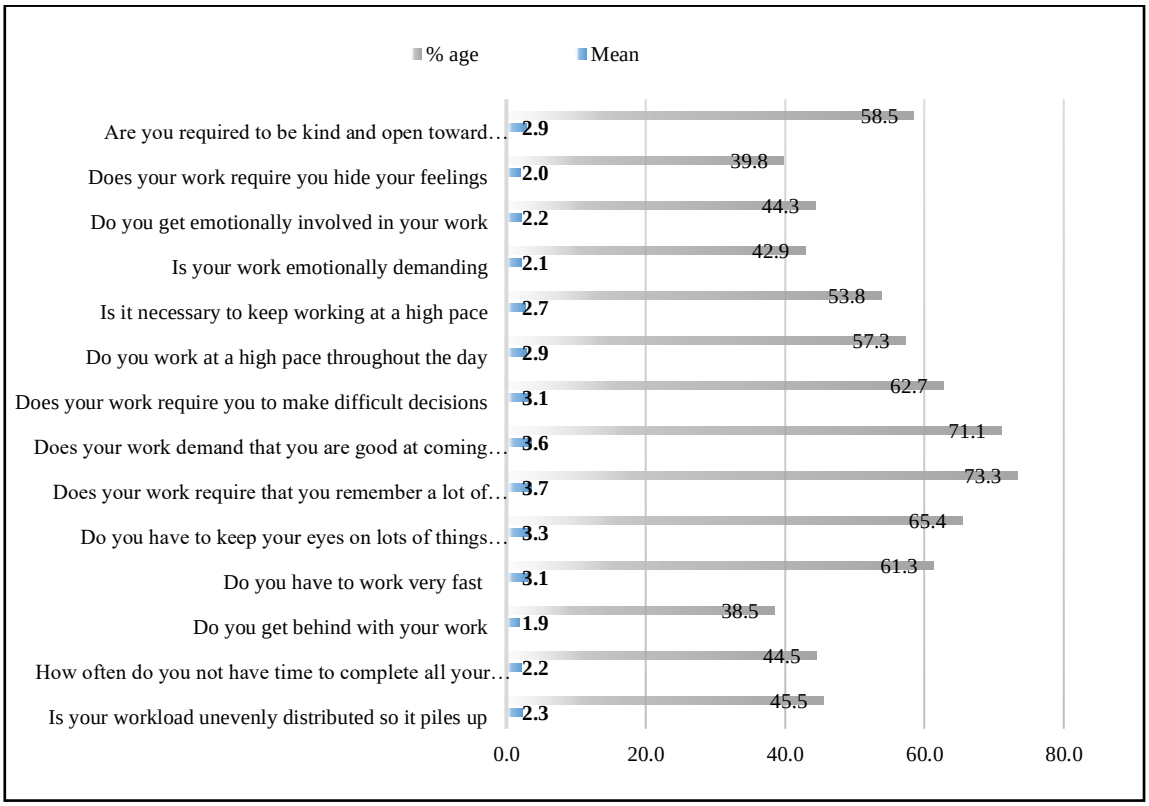

Figure 1. Respondents' perception of Work pressure

Work pressure prevalence reported by this study aligns with work pressure of between 30% - 60% reported for different categories of workers [13]. These authors believed that work demands and work pressure to achieve expectations existed in most working sectors and that increased pressure at work impacted the workers' health and wellbeing [14]

Respondents' perception of family life (WFC &FWC)

Family life measures showed that WFC that was of grave concern to the manager included work draining so much energy that it hurts the managers' private life ($\bar{x}$=3.83 ±0.74, 77%), changes in the plan of family activities that were due to work-related duties ($\bar{x}$=3.59 ±0.97. 72%), work taking too much of the mangers time that it harms their private life ($\bar{x}$=3.21±1.07, 64%) and that their job was producing strain that made it challenging for the managers to keep up with family duties ($\bar{x}$=3.13±1.01, 63%). FWC among the managers that are of consequence was that concerned with friends and family members telling them that they work too much ($\bar{x}$=3.67, ±1.14, 74%). The prevalence of family life represented as WFC and FWC was 54.8%. At the moderate level, the managers felt that the managers' families and friends were always telling them that they place family above work ($\bar{x}$=2.16 ± 0.98, 48%). Family life interfered with the managers' responsibilities at work, such as getting to work on time, accomplishing a daily task, and working overtime ($\bar{x}$=2.15±0.79, 48%). The family also interfered with respondents' ability to perform their duties ($\bar{x}$=2.10±0.74, 42%). Finally, respondents felt that their private life takes so much of their energy that it harms their job ($\bar{x}$=2.02±0.80, 40%). Family life had a 68% prevalence among the study population. Family work inter-role conflict among the respondents had a significant positive relationship with work pressure, wellbeing, and depression. This direct relationship implied that the respondents with more health/wellbeing issues and depression had higher work-family inter-role conflicts issues [6, 10]. The present study result is in agreement with these submissions, grading it as a serious factor that could lead to reduced QOL among workers [15].

Respondents' perception of their health and wellbeing

The mean and standards deviation scores of the respondents on the perception of their general

wellbeing and health showed that the respondents had felt a certain way about their health and wellbeing at all times. Very high or severe negative perception about their health and wellbeing included but not limited to how often they were stressed ($\bar{x}$=3.58±0.83, 72%), how often they felt worn-out ($\bar{x}$=3.10±0.86, 62%), how often the managers felt tired ($\bar{x}$=3.08±0.86, 62%), and how often they have been physically exhausted ($\bar{x}$=3.07±0.84, 61%).

A moderate perception of health and wellbeing included, often having problems relaxing ($\bar{x}$=2.7±0.93, 54%). Having slept poorly or being restlessly ($\bar{x}$=2.69±0.92, 54%), being tensed ($\bar{x}$=2.6±0.86, 52%) often finding it difficult to think clearly ($\bar{x}$=2.56±1.13, 51%) and often finding it hard to go back to sleep ($\bar{x}$=2.509±1.04, 50%).

At the level of low to a moderated perception of wellbeing the managers identified often waking up too early and not able to get back to sleep ($\bar{x}$=2.44±1.07, 49%), often having to wake up several times and found it challenging to get back to sleep ($\bar{x}$=2.43±1.02, 49%), having been irritable ($\bar{x}$=2.41±0.79, 48%), not having an interest in everyday things ($\bar{x}$=2.14±0.71, 43%), having problems concentrating ($\bar{x}$=2.09±0.73, 42%), often having difficulty remembering ($\bar{x}$=2.04±0.79, 41%) and finally often finding it difficult in taken decisions ($\bar{x}$=2.00±0.69, 40%).

The perception that was of no consequence in the study group was quite a few. They included how often the respondent had a bad conscience of feeling guilty (38%), how often the managers felt they lacked self-confidence (38%), and how often they felt sad (34.8%).

Respondents' perception of depression

Depression was measured using the PSS-14 score card. Possible scores ranged from 0 to 56, with higher scores indicating more severe depressive symptoms. A PSS cut-off score of 18 - 27.9 (≥ 32%≤ 49%) is an indicator of "significant" or "moderate" depressive symptoms. In comparison, a cut-off of 28-56 (≥50%≤100%) indicates "severe" depression symptomatology. Severe depression symptoms included; how often the managers were angered because of things that happened that were outside of their control ($\bar{x}$=3.18±0.98, 78%), and how often they felt that they could not cope with all the things they had to do ($\bar{x}$=2.51±1.06, 63%) and how often they felt that they were not on top of things they needed to do ($\bar{x}$=2.10±1.03, 53%). Moderate issues that met the cut-off point of perceived depression symptoms included having felt that in the last one week, the inability to control the essential things in their life ($\bar{x}$=1.85±0.96, 46.4%), often having not been able to control the way the respondents spent their time ($\bar{x}$=1.69±1.30, 42.3%), feeling that difficulties piled up that one could not overcome them ($\bar{x}$=1.69±1.30, 42.3%). Other questions were of no consequence as they fell below scores of 18.

Result of the Mean Measure (Prevalence) of variables in the Study Population

The Mean measure (prevalence) of each condition (Maxi Point percentage) are shown in Table 2. Work Pressure measured on a 70-point rating scale showed that the respondents scored a mean of 37.8±5.4, which translated to 54.1% prevalence. Similarly, Family life measured on a 60-point scale showed a mean score of 32.8±6.0, translating to a prevalence of 54.8%. In comparison, wellbeing measured at a 100-point rating gave a mean score of 50.7±9.3, translating to a prevalence of 50.7%. However, depression measured on a 56-point rating scale using the PSS-14 gave a mean value of 22.8±4.66; this translated to a prevalence of 40.9% for the study population. (See table 2 for details).

Table 2. Prevalence measure of the constructs

Variable	Min point %	Mean	Std. De	Max point %
Work pressure	70	37.9	5.40	54.1
Family life	60	32.8	6.01	54.8
Wellbeing	100	50.7	9.33	50.7
Depression	56	22.8	5.6	40.9

The key implicating issues were the manager's inability to cope with all the things they needed to do at work (workload), being on top of things, and becoming angered because of happenings outside their control. The prevalence reported currently is higher than the prevalence of 14.9% among health care providers [16], the prevalence of 19.1% in the US, 21.2% in France and, 26% in the UK [11], and

28.5% prevalence among the working class [17]. Depression is on the rise among this study population, as was substantiated by the result findings.

Results on the correlation analysis of the variable measures

Correlates between depression and hypothesized explanatory variables (Tablet 3) showed significant positive relationships between depression and family life (r = 0.178; P = 0.008), and respondents' perception of health and wellbeing (r=0.48; P = 0.00). Work pressure showed a positive significant relationship with family life measures (r = 0.444; p=0.00), and health/wellbeing (r=0.342; p=0.00). The relationship work pressure exhibited with depression (r=0.026, p=0.702), was not significant for the study population.

Table 3. Correlation analysis between the researches construct and depression

Variables		WP	FL	WB	Dep.
WP	P. Corr	1	.444*	.342*	.026
	Sig		.000	.000	.702
FL	P. Corr.	.444*	1	.368*	.179*
	Sig	.000		.000	.008
WB	P. Corr	.342*	.368	1	.476*
	Sig.	.000	.000		.000
Dep.	P. Corr	.026	.179	.476**	1
	Sig	.702	.008	.000	

*Correlation is significant at the 0.05 level (2-tailed).

Work pressure in this study, in addition to being significantly correlated with family life, also significantly correlated with adverse effects on the respondents; however, work pressure relationship was not significant with depression. This report does not support the significance between work pressure and depression [13] but in line with the findings of other studies [15, 18] that opined that increased pressure at work above the worker's capacity is a prerequisite to developing depression at the workplace. More Investigation is required to fully understand the dynamics within the construct that led to the increasing trend and the seeming stabilization, that resulted in the non-statistically significance recorded. Depression in the present study had a significant positive relationship with family life and wellbeing. The relationship with work pressure agrees with the findings that increased pressure at work above the worker's capacity might not necessarily lead to depression at the workplace [18]. The non-significant relationship reported in this study could be that the managers have developed an intrinsic mechanism that helped them balance work pressure toils over time. Some earlier research [13, 18, 19] individually opined that; control on workload with excellent work support, high job demands with sufficient recourses to achieve, and perceiving goals as not difficult to achieve, may reduce the negative effect of work pressure. The findings in this study suggest that the managers may have these stabilizing factors at their workplace, which, however, requires further evaluation. Wellbeing had a significant and positive relationship between family life and depression. Decreased cases in health and wellbeing reported in this study were mainly due to increases in work pressure, family life issues, and depression. This assertion aligns with earlier work [6] that demonstrated that work and family spillover among dual-earner couples positively correlated with psychological distress that led to increased mental health disorders in their study population

Result on Multiple regression analysis

Socio-demographic variables relationship with depression showed that F-statistics is significant at P<0.05. The model explains a significant amount of the variation in the dependent variable. The adjusted R-square is 0.45, which implies that the strength of generalization is 45%. This diagnostic result shows that the model is of a good fit. The result further shows that being female (r=-0.015; P=0.027) as well as an increase in the years of service as a manager (r=0.043; P=0.015) are the significant variables with their appropriate signs. (See table 4 for details).

Texila International Journal of Public Health
ISSN: 2520-3134
DOI: 10.21522/TIJPH.2013.08.03.Art020

Table 4. Multiple regression analysis of the influence of socio-demographic characteristics of the respondents on depression

Variables	β	t-value	Sig.
(Constant)	22.957	5.920	0.000
Age at last birthday	0.042	0.365	0.716
Sex	-0.015*	-2.160	0.027
Years of service in your profession	-0.139	-1.173	0.242
Years of service as a manager	0.043*	2.182	0.015

P<0.05, F = 1.716, Adjusted R^2 = 0.451

The female respondents being significant, implies that female managers were more predisposed to developing depression than their male counterparts. Also, years of service as a manager was significant with a positive sign. These two findings align with the study that showed a correlation between depression developments with socio-demographic factors (gender, age, marital status) in 15 out of 18 countries studied [11, 20]. Women in this study also reported a two-fold increased risk of developing major depression than males

Results on the correlation analysis of the sub-construct measures

Results in Table 5 showed that all the research sub-construct had a significant correlation with depression with the exemption of quantitative demand on the managers (r=0.022; p=0.744). Further review of the result showed that cognitive demand had a negative correlation with depression (r=-0.113; p=0.095). The nexus between the sub-constructs of wellbeing and depression measures were very significant. For example: sleeping troubles (r=0.297; p=0.00); burnouts (r=0.339; P = 0.00); stress (r=0.390; p=0.00); cognitive stress (r=0.385; p=0.00) and depressive symptoms (r=0.353; p=0.00). See table 5 for more details.

Table 5. Correlation between the sub-research construct and depression;

Sub constructs		DEPRESSION
Quantitative demand	Pearson Correlation	0.022
	Sig. (2-tailed)	0.744
Cognitive demand	Pearson Correlation	-0.113
	Sig. (2-tailed)	0.095*
Work/emotional demand	Pearson Correlation	0.085
	Sig. (2-tailed)	0.207*
Family life (WFC)	Pearson Correlation	0.084
	Sig. (2-tailed)	0.214*
Family (FWC)	Pearson Correlation	0.215*
	Sig. (2-tailed)	0.001
Wellbeing (Sleeping trouble)	Pearson Correlation	0.297**
	Sig. (2-tailed)	0.000
Wellbeing (Burnout)	Pearson Correlation	0.339**
	Sig. (2-tailed)	0.000
Wellbeing (Stress)	Pearson Correlation	0.390*
	Sig. (2-tailed)	0.000

Wellbeing Depressive symptoms	Pearson Correlation	0.353*
	Sig. (2-tailed)	0.000
Wellbeing Cognitive stress	Pearson Correlation	0.385*
	Sig. (2-tailed)	0.000
Depression	Pearson Correlation	1
	Sig. (2-tailed)	

*Correlation is significant at the 0.05 level (2-tailed).

The extent by which this study group exhibited the depressive health concerns that might lead to a reduction in the workforce's overall productivity requires further evaluation following the significant effect the issuing variables had on the health, wellbeing, and mental health of the managers.

Conclusion

This study confirmed that intrapersonal factors, sex, and years of service correlated significantly with depressive symptoms. The female population showed a higher propensity toward mental health problems than the males. The study equally validates that, as the number of years spent on the job as a manager increases, the implicating variable harms the respondents' health and mental health status.

The interpersonal level of interaction in this study underscores that family responsibilities that manifested as family work conflicts and vice versa significantly correlated with the State of Wellbeing and depression of the respondents. This intrinsic factor is common to both the male and the female respondents.

At the organizational level, the research revealed that increases in work pressure among the managers lead to declining wellbeing and increasing depressive symptoms.

The implication is that family life or home demands on the manager in consonance with work pressure affects workers' wellbeing and, most importantly, mental health among the managerial staff working in the Pharmaceutical manufacturing companies located at Lagos.

Acknowledgments

The researchers' expresses thanks to everyone who contributed to the success of this research.

References

[1]. World Health Organization, 2008, The Global Burden of Disease; 2004 update. http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.

[2]. Jacob, K., S., 2012, Depression: A Major Public Health Problem in Need of a Multi-Sectorial Response; Indian Journal of Medical Research: 136(4): 537-538.

[3]. Van Roon, A., M., Mulder, L., J., M., Veldman, J., B., P., and Mulder, G., 1995, Beat-to-beat blood pressure measurements applied to studies on mental workload. Homeostasis in Health and Disease, 36, 300-310.

[4]. Keyes, C., L., M., 2002. The mental health continuum: from languishing to flourishing in life. Journal. Health Soc. Behav. 43, 207–222. doi: 10.2307/3090197.

[5]. Khumalo, I. P., Temane, Q. M., and Wissing, M. P., 2012, Socio-demographic variables, general psychological wellbeing, and the mental health continuum in an African context. Soc. Indic. Res. 105, 419–442. doi: 10.1007/s11205-010-9777-2.

[6]. Shimazu, A., Kubata, K., Bakkar, A., Demerouti, E., Shimada, K., and Kawakami, N., 2013, Work-to-family conflict and Family-to-work conflict among Japanese dual-earner couples with preschool children: a spillover crossover perspective. Journal Occup. Health. 55(4): 234-43.

[7]. Akintayo, D., I., 2010, Work-family role conflict and organizational commitment among industrial workers in Nigeria. Journal of Psychology and Counselling, 2(1), 1-8.

[8]. Amstad, F.T., Meier, l. L., Fasel, U., Elfering, A., and Semmer, N., K., 2011, A meta-analysis of work-family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. Journal of Occupation. Health psycho, 16, 151-169.

[9]. Marina Marcus, M., Taghi, Y., Mark van, O., Dan, C., and Shekhar S., 2012, Depression a Global Public Health Concern, Depression WHO Department of Mental Health and Substance Abuse. https://www.who.int/mental/depression/who_paper_depression_wfmh.

[10]. Ajala, E., 2017, Work-Family-Conflict, and Family-Work-conflict as correlates of job performance among working mothers: implications for industrial social workers. *African Journal of Social Work*, 7(1) 52-62.

[11]. Bromet, E., Andrade, L., H., Hwang, I., Sampson N., A., Alonso, J., de Girolamo G., de Graaf R., Demyttenaere, K., Hu, C., and Iwata, N., 2011, Cross-national epidemiology of DSM-IV major depressive episode. BMC, Med. 9, 90-98.

[12]. Fan, L., Blumenthal, J., A., Watkins, L., L., and Sherwood, A., 2015, Work and home stress: associations with anxiety and depression symptoms. Occupational medicine, 65 2, 110-6.

[13]. Demerouti, E., and Bakker, A., 2011. The Job Demands–Resources model: Challenges for future research. SA Journal of Industrial Psychology, 37(2), 9 pages. doi: https://doi.org/10.4102/sajip.v37i2.974.

[14]. Eby, L., T., Casper, W., J., Lockwood, A., Bordeaux, L., and Brinley, A., 2005, Work and Family research in IO/OB: Content analysis and review of the literature (1980-2002). Journal of Vocational Behaviour, 66: 124-197.

[15]. World Health Organization, 2017, depression a public health concern. Going International, https://www.goinginternational.eu/new/115/.

[16]. Obi, I., E., Aniebue, P., N., Okonkwo, K., O., B., Okeke, T., A., and Ugwunna, N., C., W., 2015, the prevalence of depression among health workers in Enugu, southeast Nigeria. Nigerian Journal of Clinical Practice, 8(3), 342-347.

[17]. Iloh, G.U.P., Aguocha, G., U., Amadi, A., N., and Chukwuonye, M., E., 2018, depression among ambulatory adult patients in a primary care clinic in southeastern Nigeria. Niger Postgrad Med J. 25(4):204-21.

[18]. Goh, J., Pfeffer, J., and Zenios, S., 2015. The Relationship between Workplace Stressors and Mortality and Health Costs in the United States. J. Management of Science Articles. https://doi.org/10.1287/mnsc.2014.2115.

[19]. Siegrist, J., and Li, J., 2017, Work Stress and Altered Biomarkers: A Synthesis of Findings Based on the Effort-Reward Imbalance Model. *International journal of environmental research and public health*, 14(11), 1373. doi: 3390/ijerph14111373.

[20]. Zhou, S., Das, S., Guo, H., and Zhang, X., 2018, Work-family conflict and mental health among female employees: A sequential mediation model via negative affect and perceived stress. Front. Psychol, 9, 544. DOI 10.3389.