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Original Article

Effect of Workload on Job Stress of Ghanaian OPD Nurses: The Role of Coworker Support

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ABSTRACT

Background: Although the concept of workload is important to nursing practice, only a few nursing researchers have focused on the issue of workload within the nursing context. Knowledge of how the dynamics of workload affects the job stress of nurses working in a specific unit or department in a hospital setting, and the influence of coworker support on this relationship, still remains limited. This study, therefore examined the effect of workload on job stress of Ghanaian outpatient department nurses and the moderating effect of coworker support on this relationship.

Methods: A cross-sectional survey design was used, and questionnaire was used to collect data from a sample of 216 outpatient department nurses from four major hospitals in Ghana. The data collected measured workload, job stress, and coworker support using National Aeronautics and Space Administration (NASA) Task Load Index, job stress scale, and coworker support scale, respectively. Data were analysed using descriptive statistics, correlation, and hierarchical regression.

Results: High levels of workload were associated with high levels of job stress of the nurses. Also, higher levels of workload were related to higher levels of job stress for nurses who received high levels of coworker support, but this was not the case for those who received low levels of coworker support (reserve buffering effect).

Conclusion: The finding reiterates the adverse effect of workloads on employees' health, and the reverse buffering effect implies that supporting a colleague at work should be conveyed in a positive manner devoid of negative appraisal.

1. Introduction

In recent times, higher demands on nurses and health-care workers in terms of work output have been a concern to government, researchers, and other stakeholders in the health sector. As a result, there is a growing interest in understanding the workload of health workers and its consequent effect on their health. Hospitals by their nature are stressful organisations [1], and nursing is also considered as a demanding profession [2] characterized by occupational stress and extreme workload [3,4].

Studies in the health sector have found that nurses experience the highest workload comparable with other health workers such as paramedics, support staff, and even doctors [5,6]. According to Needham [7], nursing workload is "the time taken to carry out 'direct' and 'indirect' care as well as other activities, including ward and organization management" (p. 84). Researchers have attributed the demanding nature of nurses' work to factors consisting of work interruptions, procedures, and processes involved in treating patients, prolonged work hours as well as facing work-related uncertainties [6,8]. More so, nurses are often confronted with emotional tasks emanating from making critical decisions under intense time pressure and caring for patients in critical conditions [9]. In Ghana, although there have been some significant improvements in the nurse–patient ratios from 1:1,251 in 2012 to 1:542 in 2016 [10], a previous report shows that nurses are still working under intense time pressure to deliver health-care services [11] According to Aiken et al. [12], aside nurses' core duties, they also undertake other responsibilities such as carrying food to

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patients, house-keeping works and transporting patients among others. The workload of nurses, therefore comprises of both professional and nonprofessional tasks and duties.

A plethora of studies have shown that the workload of nurses directly and positively relates to job stress with some associated negative emotions and feelings [13–15]. Nurses' job stress according to Nedd [16] and as adopted in this study refers to "the emotional and physical reactions resulting from the interactions between the nurse and his or her work environment where the demands of the job exceed capabilities and resources" (p.13). High levels of workload have been reported as one of the primary factors contributing to nurses' job stress [17]. Wazqar et al [18], in an integrative review of the influence of job stress on work performance of nurses, identified nurses' workload levels as the key determinant of their job stress. In Ghana, the case is similar; studies have attributed the nurses' job stress levels to their workload levels [11,19,20]. According to Donkor [20], 44.2 percent of the sources of nurses' stress in Ghana is related to high workload levels.

However, available evidence suggests that the presence of social supports in organisations provide extra resources that have enabled and empowered nursing staffs to better cope with their job stress [21–23]. The concept of social support is a multidimensional concept encompassing levels of support (low, moderate, or high), kinds of support (instrumental, emotional, or informational), and sources of support (spouse, friends, kin, coworkers, or supervisor). Specifically, coworker support refers to helpful social interactions with work colleagues in the workplace [24]. The coworker and supervisor supports are considered as organization-based support [25]. Ellis and Miller [26] further argued that organisation-based supports are far more efficient in mitigating the adverse effect of workloads and job-related stress at work than non–work-based supports. According to Almendra [21], it is easier and more practical to provide a supportive work environment for employees than attempting to reduce stressors at work. For instance, in a study involving nurses from some selected Spanish hospitals and health-care centres, Blanco-Donoso, Garrosa, Demerouti and Moreno-Jimenez found that although nurses' emotion regulation difficulties at work negatively affected their well-being resulting in fatigue and emotional exhaustion, availability of coworker support was found to have considerably minimised those health issues [23]. Other researchers have also found high levels of coworker support to be associated with reduced job stress levels among the nurses [27,28]. Relatedly, Winning et al. [29], found nurses' supports from coworkers moderate the positive relationship between their daily workload and anxiety and depression, such that low levels of anxiety and depression was associated with reduced daily workload for nurses who reported higher levels of coworker support but vice versa when supports were low, an indication of a buffering effect. However, Jenkins and Elliott found coworker support levels of nurses to strengthened the positive relationship between work stressors and depersonalization such that high levels of depersonalization were associated with high stressors for nurses who reported higher levels of social support, but this was not the case for those who reported low levels of social support. This is an indication of a clear case of a reverse buffering effect [28].

Three models of the processes through which social support acts to offset workload pressures and job-related stress have been identified. The main effect or direct effect model argues that social support improves a person's health conditions because it enables basic human needs, such as needs for security, approval, belonging, and affection to be met irrespective of the volumes of work demands or pressures a person is exposed to [30]. Contrastively, the indirect effect model maintains that social support acts directly to reduce work stressors or demands, thereby reducing their adverse impact indirectly [25]. The buffering or interaction effect model theorizes that social support buffers or moderates the effects of work demands or stressors on strains [25]. Hence, the relationships between work stressors and work stress will be weaker for individuals with high levels of social support than those with low levels of such support.

Notwithstanding that studies have examined different aspects of the impact of work demand on job stress of health workers globally, there appear to be very limited studies conducted in Ghana on nurses' workload and its consequential effect on their health to guide health-care policies and practices [11,19,20]. Again, even though the moderating effect of social support has received major attention in stress management literature, very limited studies have examined its moderating effect on job stress within the Ghanaian nursing context. This study sought to fill these gaps by examining the effect of workload on job stress of Ghanaian outpatient department (OPD) nurses, and the moderating effect of coworker support on this relationship.

Based on the aforementioned text, the following hypotheses and corresponding conceptual models are shown in Fig. 1

Hypotheses

H1. There will be a significant positive relationship between the workload and job stress of Ghanaian OPD nurses.

H2. There will be a significant negative relationship between the coworker support and job stress of Ghanaian OPD nurses.

H3. Coworker support will significantly weaken the positive relationship between the workload and job stress of Ghanaian OPD nurses.

2. Materials and methods

2.1. Study design and sampling

The study used a cross-sectional design to sample 216 OPD nurses from 4 major hospitals in the Greater Accra region of Ghana: Ridge hospital, La General Hospital, Lekma hospital, and Police hospital. Aside the Greater Accra region being the highest populated region in Ghana, it also has a good representation of the nursing population in Ghana serving a large number of patients daily [11]. Subsequently, a convenience sampling technique was used to select the respondents because nurses work in rotation or shift; therefore, only those available during the time of data collection were sampled.

2.2. Measures

The study data were collected using self-administered questionnaires with 4 sections: demography, workload, job stress, and

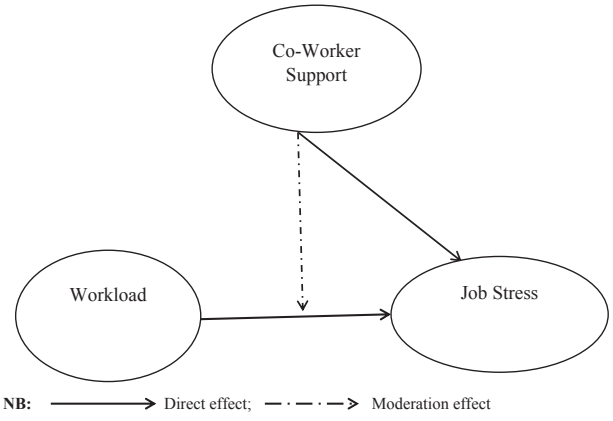

Fig. 1. A model of workload, coworker support, and job stress.

coworker support. The demographic section includes items such as sex, age, and so on. Workload was measured using the National Aeronautics and Space Administration (NASA) Task Load Index (TLX) developed by Hart and Staveland [31] and scored on a 5-point Likert scale from 1 = very low to 5 = very high. An example of an item on the scale is "The physical demand of my assigned job is?" The NASA TLX has a reported Cronbach's alpha of 0.66 [11]; however, the Cronbach alpha for this study is 0.75. Job stress was measured with a 13-item job stress scale developed by Parker and DeCotiis and has a Likert scale ranging from 1 = strongly disagree to 5 = strongly agree [32]. An example of an item on the scale is "I have felt fidgety or nervous as a result of my job". The reported Cronbach's alpha for this instrument among the nursing populations are 0.84 [33] and 0.91 [21], but for this study, the reported Cronbach alpha is 0.91. A coworker support scale developed by Spooner-Lane [25] was adopted to measure the nurses' coworker support level. The items were scored on a 5-point Likert scale format, ranging from 1 = strongly disagree to 5 = strongly agree. An example of an item on the scale is "I feel comfortable asking my coworkers for help if I have a problem". Cronbach's alpha was 0.86 among the nursing population [25]. The new Cronbach alpha for this study is 0.90.

2.3. Control variables

The participants' demographic characteristics comprising of age, work experience, and work hours are used as control variables. According to Kowalski et al. [34], demographic variables such as age, work experience, and work hours of a person produces mixed results as to which variables increase the risk, are protective, and the magnitude of job stress effects, if any. For instance, Nabirye et al [35] also found a statistical significant difference in the age categories of nurses and job stress in Uganda, and their results showed the youngest age group to be less stressed than the oldest age group. Also, Mosadeghrad [36] found older nurses with more years of experience reporting less occupational stress than their younger colleagues with less years of experience. According to Caruso [37], long work hours of nurses did not only result in low performance or injuries but also culminated in a wide range of chronic diseases including stress. As a result, these variables are controlled for in this study to avoid their conflicting effects on the study results.

2.4. Data collection and analysis

Copies of the questionnaires were administered to the nurses working at the OPDs after an approval was obtained from Greater Accra Regional Health Directorate of Ghana Health Service and the Administrators of participating hospitals. In addition, ethical concerns such as privacy, anonymity, informed consent, and the right of withdrawal were keenly taken into consideration. The nurses were then given ample time of one to two weeks to complete the questionnaires by themselves and submit. The data collection period ranged from February to April 2017. Data were analysed using the IBM Statistical Package for Social Sciences (SPSS), version 22. The demographic characteristics of the respondents were analysed descriptively. Correlation analysis was used to examine the relationship among the study variables, whereas hierarchical multiple regression analysis was used to examine the moderating effect of coworker support on the relationship between workload and job stress of the OPD nurses.

3. Results

3.1. Demographic description of respondents

The demographic characteristics of respondents are analysed from the perspective of gender, age, work hours, and work experience as presented in Table 1. From Table 1, it can be observed that the majority of the respondents are females, 205 (95%), with the rest 11 (5%) being males. Most respondents fall within the age bracket of 25 to 34 years and work for 8 to 10 hours daily. The result further showed that most of the respondents had 1 to 3 years of work experience. The demographic description of the respondents is a true reflection of domination of the nursing profession in Ghana and globally by females.

Table 1
Demographic characteristic of respondents

Characteristics	N (%)	Workload			Job stress			CWS		
		Mean	SD	*p*	Mean	SD	*p*	Mean	SD	*P*
Sex				.11			.38			.42
Male	11 (5)	23.73	3.90		46.18	8.95		46.73	6.80	
Female	205 (95)	25.18	2.86		43.55	9.72		45.08	6.63	
Age:				.00			.00			.00
>18≤24 years	20	22.80	2.44		34.30	12.68		50.00	4.91	
>25≤34 years	147	25.43	2.91		43.83	8.88		43.23	6.26	
>35≤44 years	16	24.81	2.88		49.69	7.47		48.00	8.48	
>45≤55 years	16	24.25	2.74		44.44	8.93		49.88	2.58	
>55 years	17	26.06	2.59		47.06	7.94		49.06	4.70	
Work hours:				.03			.00			.00
>5≤7 hours	93	25.74	2.44		44.43	9.53		43.06	7.15	
>8≤10 hours	117	24.57	3.17		43.06	9.67		46.38	5.61	
>10≤12 hours	4	25.00	3.46		47.00	13.98		55.00	3.46	
>12 hours	2	25.10	3.53		38.50	13.44		55.50	6.36	
Work experience				.00			.00			.00
<1	21	22.38	2.20		35.05	11.50		48.81	4.27	
>1≤3	70	25.11	3.30		42.77	9.69		41.69	6.63	
>4≤6	57	25.44	2.29		46.79	8.40		47.00	2.96	
>7≤9	20	26.75	3.02		39.45	10.06		38.85	10.45	
>10	48	25.19	2.57		46.85	6.77		49.08	3.72	

SD, Standard deviation; *p*, significance level; CWS, coworker support.

3.2. Assumption testing

To ensure that the data set fits the choice of analysis, the assumption of normality was tested. From Table 2, the z-scores of skewness for workload, job stress, and coworker support were -1.084, -0.590, and -1.410, respectively. Also, the z-scores for kurtosis were 0.073, -0.561, and 0.855 for workload, job stress, and coworker support, respectively. The results showed that the z-scores of skewness and kurtosis of the study variables fell within the recommended values of +1.96 and -1.96 [38]. Therefore, the data set is normally distributed and fit for further analyses.

3.3. Bivariate relationships among the study variables

The intercorrelations among the study variables as seen in Table 3 indicate low and moderate correlation coefficients between the independent variables which means there is no case of multicollinearity to the analysis. From the results, there exist a significant positive correlation between workload and job stress ($r = .37$, $p < 0.01$). Although coworker support negatively correlated with workload, this association is not statistically significant ($r = -.10$, $p > 0.05$). Interestingly, coworker support has a positive but insignificant correlation with job stress ($r = .04$, $p > 0.05$).

3.4. Predicting job stress

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Table 2
Normality testing of the measured variables

Variables	Skewness	Std. error	Z-scores	Kurtosis	Std. error	Z-scores
Workload	-0.180	0.166	-1.084	0.024	0.330	0.073
Job stress	-0.098	0.166	-0.590	-0.185	0.330	-0.561
Co-worker support	-0.234	0.166	-1.410	0.282	0.330	0.855

Std. error, standard error.

Table 3
Correlation matrix of the relationship among the study variables

Variables	Mean	SD	1	2	3	4	5	6
1. Age	2.37	1.02	—					
2.WE	3.02	1.30	.73**	—				
3. WH	2.61	0.57	.30**	.13*	—			
4. WL	25.10	2.93	.10	.19**	-.15*	—		
5. JS	43.68	9.68	.23**	.24**	-.06	.37**	—	
6. CWS	45.16	6.64	.21**	.18**	.33**	-.10	.04	—

SD, standard deviation; WE, work experience; WH, work hours; WL, workload; JS, job stress; CWS, coworker support.
**Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed).

3.5. Testing the hypotheses

Hypothesis 1. There will be a significant positive relationship between the workload and job stress of Ghanaian OPD Nurses.

The first hypothesis which looks at the relationship between workload and job stress of Ghanaian OPD nurses was tested using Pearson's product moment correlation analysis. From Table 3, the result showed a significant positive correlation between workload and job stress ($r = .37$, $p < 0.01$). In addition, a regression analysis was carried out to determine if the nurses' workload level predicted their job stress level. As shown in Table 4 (Step 2), the level of workload has a significant positive effect on job stress level ($\beta = .333$, $p < 0.01$) after controlling for age, work experience, and work hours. Workload explained 18% ($\Delta R^2 = .104$) of variance in job stress. As a result, Hypothesis 1 was supported.

Table 4
A hierarchical regression showing predictors of job stress

Step 1	B	Std error	β	p	R	R^2	ΔR^2
(Constant)	42.738	3.163		.000	.280	.078	.078
Age	1.609	.962	.170	.096			
WE	.976	.725	.132	.179			
WH	-2.229	1.171	-.133	.058			
Step 2							
(Constant)	41.733	2.994		.000	.426	.182	.104
Age	1.636	.909	.172	.073			
WE	.437	.692	.059	.529			
WH	-1.244	1.122	-.074	.269			
WL	1.102	.213	.333	.000			
Step 3							
(Constant)	42.587	3.189		.000	.429	.184	.002
Age	1.626	.910	.171	.075			
WE	.380	.697	.051	.586			
WH	-1.497	1.169	-.089	.202			
WL	1.117	.214	.338	.000			
CWS	.076	.098	.052	.434			
Step 4							
(Constant)	44.768	3.075		.000	.512	.262	.078
Age	1.009	.877	.106	.251			
WE	.932	.675	.126	.168			
WH	-2.318	1.128	-.138	.041			
WL	1.301	.208	.393	.000			
CWS	.037	.094	.025	.693			
WL*CWS	.129	.028	.301	.000			

a. Dependent variable: Job stress.
B, unstandardized beta; std. Error, standard error; β, standardized beta; R^2, R square; ΔR^2, R square change; p, significance level; WE, work experience; WH, work hour; WL, workload; CWS, coworker support.

Hypothesis 2. There will be a significant negative relationship between the coworker support and job stress of Ghanaian OPD nurses.

The second hypothesis which looks at the relationship between coworker support and job stress of Ghanaian OPD nurses was examined using Pearson's product moment correlation analysis. As shown in Table 3, the result indicated that the level of coworker support among the respondents did not significantly correlate with their level of job stress ($r = .04$, $p > 0.05$). Also, a regression analysis showed no significant effect of the level of coworker support on job stress level ($\beta = .052$, $p > 0.05$), see Table 4 (Step 3). Therefore, Hypothesis 2 was not supported.

Hypothesis 3. Coworker support will significantly weaken the positive relationship between workload and job stress of Ghanaian OPD nurses

The third hypothesis aims to determine the moderating effect of coworker support on the relationship between workload and job stress level of the nurses. This hypothesis was tested using hierarchical multiple regression as suggested by Baron and Kenny. However, workload and job stress were centered before creating their product or interaction term (workload*coworker support) to prevent high multicollinearity [39]. As shown in Table 4, in Step 4, the interaction term of workload and coworker support had a significant positive effect on job stress ($\beta = .301$, $p < 0.01$) and accounted for 7.8% of variance in job stress ($\Delta R^2 = .078$). The result, therefore, showed a moderating effect of coworker support level on the relationship between workload level and job stress level of the nurses.

To examine the nature of this interaction, the coworker support level was split into two groups (low and high) using the median value of the total coworker support level (47). The job stress level was regressed on workload level for each split coworker support group. Surprisingly, as shown in Table 5, the workload significantly predicted job stress for high level coworker support group ($\beta = .497$, $p < 0.01$), but this was not the case for low level coworker support group ($\beta = .180$, $p > 0.05$). The result means that high workload levels predicted high job stress levels for nurses reporting high levels of coworker support but not for nurses with low levels coworker support (reverse buffering effect).

4. Discussions

One of the key challenges nurses face globally is high work demands and the resultant ill effect on their health. This study aimed to determine the effect of workload on job stress of Ghanaian OPD nurses and the effect of coworker support on this relationship. The findings from the bivariate correlation showed significant positive relationship between workload and job stress levels of the OPD nurses; however, coworker support did not significantly correlate with the job stress level of the respondents. Further analysis showed that coworker support strengthened the positive relationship between workload level and job stress level of the respondents.

4.1. The effect of workload of OPD nurses on job stress

The findings show that the workload of OPD nurses has a positive effect on their job stress, such that as the workload of nurses increases their level of stress relating to their job also increases. This finding supports research theorists who posited that adverse work conditions such as high workloads can lead to job stress among workers [40]. The finding is also consistent with the strain hypothesis which states that high job demands facilitate job strains [24]. Again, the result corroborates the finding of Almendra who

reported that increases in psychological and physical demands of nurses lead to increased job stress levels [21]. Likewise, Kwansah et al., Cudjoe, and Donkor arrived at a similar conclusion that nurses' job stress is associated with their workload [11,19,20]. In Ghana, although there have been some improvements in the doctor-to-patient ratio as well as the nurse-to-patient ratio, nurses are still under intense time pressure to deliver health-care services as they are overwhelmed with large number of patients [11]. This pressurised work environment characterizing the nurses work conditions may contribute to their job stress. With workload being a crucial and important factor for employees because of its effects on their health both physically and psychologically, it is not surprising that the result of the study found it to predict the OPD nurses' job stress. In most hospitals in Ghana, OPD nurses are the first point of call for patients and emergency situations and are, therefore, required to respond to these emergencies as well as provide information to families of these patients. Handling these tasks in addition to their assigned duties could add up to their workload resulting in the job stress.

4.2. The effect of coworker support on job stress of OPD nurses

Coworker support levels did not significantly correlate with job stress levels of the OPD nurses. More surprisingly, a close look at the result showed a positive relationship between coworker support levels and job stress levels. This finding is inconsistent with the main effect model of social support, whereby research theorists posited that individuals with low levels of social support will be more vulnerable to stress, whereas those with high levels of social support will be shielded from stress-related effects [26,30]. The finding is also not in line with findings by several other researchers: Blanco-Donoso et al and AbAlRub who all found high levels of coworker support decreased high job stress levels [23,27]. This contrary finding to what was hypothesized could mean that the support the nurses reported receiving from their colleagues rather served as a source of distraction for them such that the more support they received, the more they were distracted on their job leading to the increased stress level. In addition, nurses who receive more support than required might develop a sense of guilt and indebtedness which could be the reason why their stress level increased. According to Bowling et al. [41], an individual who experiences over-reciprocation, thus receiving more than giving, develops a feeling of remorse, guilt, and dishonour which can lead to stress.

Table 5
Multiple regression showing predictors of job stress for split groups of coworker support

Low CWS	B	Std error	β	p	R	R^2	Adjusted R^2
(Constant)	23.623	9.360		.013	.327	.107	.076
Age	3.877	1.817	.217	.035			
WE	.368	.857	.044	.669			
WH	-.902	1.744	-.049	.606			
WL	.545	.293	.180	.066			
High CWS							
(Constant)	-4.773	8.961		.596	.598	.307	.329
Age	.348	1.364	.045	.799			
WE	1.484	1.190	.210	.216			
WH	-1.763	1.453	-.111	.228			
WL	1.895	.329	.497	.000			

a. Dependent variable: Job stress.
B, unstandardized beta; std. error, standard error; β, standardized beta; R^2, R-square; p, significance level; WE, work experience; WH, work hour; WL, workload; CWS, coworker support.

4.3. How coworker support strengthens the positive relationship between workload and job stress of Ghanaian OPD nurses

The finding showed that coworker support strengthened the positive relationship between workload and job stress (reverse buffering effect). This means that higher job stress levels are related to higher workload levels for OPD nurses reporting higher levels of coworker support but not the case for those reporting lower levels of coworker support. This finding is sharply in contrast with that of Winning et al. [29], who found coworker support to weaken the positive relationship between workload and job stress levels of nurses. Beehr [42], in explaining this occurrence, attributed it to communication issues with employees when deliberating on work issues. According to Beehr, coworkers in some instances change their colleagues' perspectives from positive to negative and making them believe that things are actually worse than they first believed [42]. Another possible explanation could be, as the support levels for the nurses' increase, they might possibly overrate their workload as being difficult, hence, the main reason for the support that may be offered. This perception could place more burden on them which might further increase their job stress levels. Liang et al. asserted that negative self-image due to situations where a person solely relies on someone for help, and also not being able to take charge over one's affairs during stressful situations because of overrating of one's own problems, may not only detract the person from the benefits of any support given but also increase the person's psychological distress [43].

4.4. Implications/recommendations

The findings of this study have some practical implications. First, it has reinforced the point that nurses' workload is a key determinant of their job stress. Health-care managers including hospital administrators and nurse managers need to closely pay attention to the amount of work duties assigned to nurses per their shift period. Because nurses with high levels of workload are susceptible to high levels of job stress, recruitment of more nurses to improve the nurse-to-patient ratio will help reduce the work burden on the existing staff.

Second, the reverse buffering effect indicates that receiving more support from a colleague at work might not automatically help deal with work-related issues. Hence, nurses should not be over reliant on their colleagues for assistance because if this support is not well communicated, it could alter their perceptions of the problem at hand or fuel an already negative appraisal of work situations. Therefore, nurses when discussing patient-care issues with their colleagues are advised not to dwell much on the challenges they encounter.

4.5. Conclusions

The following conclusions are drawn based on the research findings: the job stress of Ghanaian OPD nurses was found to be related to their workload. Job resources such as role clarity, autonomy, and supervisor support if provided could help the nurses manage their workload. The surprising exacerbation effect of coworker support on the positive relationship between workload and job stress bespeaks the crucial role of coworker support in stress management interventions; however, the reported case of the reverse buffering effect questions the success of such intervention within some contexts. It can be concluded that for support to be effective, nurses would have to focus on discussions relating to successful patient management ideas and drastically reduce negative appraisal of patient management related issues.

4.6. Limitations of the study

The use of a cross-sectional design to collect the study data limit a definite conclusion about the causal relationship between the study variables. Future studies should collect data across different time periods to minimize this limitation. In addition, the use of the convenience sampling technique could result in self-selection bias and selection of respondents that are unrepresentative of the population. It could also be that most of the nurses who availed themselves for the study are those that felt being stressed by their workload; therefore, see the study as a means to express their feeling, hence exaggeration of their workload and job stress levels. The use of probability sampling technique in future studies could help minimise this potential effect. The use of a quantitative approach limits the detailed explanation of some of the research findings. Therefore, future studies should use a qualitative approach to get an in-depth understanding of the reverse buffering effect.

Conflicts of interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.shaw.2019.04.002.

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