Original Research Article

Influence of motivation on health workers' performance at a teaching hospital, Ghana

Abstract

Aims: To determine the influence of intrinsic and extrinsic motivation on health worker performance among clinical health personnel.

Study design: An exploratory cross-sectional design was applied.

Place and Duration of Study: Korle-Bu Teaching Hospital in the Greater Accra Region of Ghana in June, 2016.

Methodology: Quantitative methods were employed where 324 clinical health personnel responded to a self-administered structured questionnaire. Stata Version 13 was used for the statistical analysis. An ANOVA test was conducted to compare the effect of motivation on job performance. Simple and Multiple Linear regression models were used to estimate the overall effect of the independent variables on the outcome variable. The level of significance was a probability less than 5% ($p<0.05$).

Results: The overall multiple regression model showed that both intrinsic ($F(4, 319) = 8.66$, $p<0.001$) and extrinsic ($F(6, 317) = 23.97$, $p<0.001$) motivation were significantly associated with job performance.

Conclusion: There is a need for policy makers, stakeholders, managers and all players of the health sector to develop appropriate strategies toward improving the motivation and performance of health workers.

Keywords ????

1. Introduction

Arguably, strengthening human resource tools can uphold and strengthen the professional ethics of health workers and increase their motivation, professionalism and address their professional goals such as recognition, and career development since continuous education increases their chances of performing better (Mathauer and Imhoff, 2006; Sallis, 2014). Therefore, the provision of appropriate structures for professional and personal support for quality management processes from members of the health force is essential in any health system (Sallis, 2014). Performance measurement is said to be a continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organisation (Aguinis, 2013). Notably, the performance of workers depends on ability, tools or equipment and motivation (Griffin and Moorhead, 2007; Lussier, 2008; Re'em, 2011). Similar recognition is that many factors influence employee performance such as satisfaction from the profession, work environment, and compensation policies, among others (Platis *et al*., 2015).

Consequently, improving the performance of workers has gained attention, especially in the public sector (Gould-Williams, 2003; Platis *et al*., 2015). This is particularly so because the evidence shows that public health clinics are often portrayed as low quality, with long waiting times and unexpected costs; in contrast to private clinics, which are seen to provide more convenient healthcare (Chhea *et al*., 2010). Gould-Williams (2003) suggests that attention needs to be placed on the effort of motivating

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workers while efforts are made to identify reasons that prevent optimal performance. Alhassan *et al*. (2013) recommended that most public health facilities should adopt a more comprehensive staff motivation intervention to enable quality improvement in performance for health workers, particularly in Ghana. Subsequently, several strategies, including contract management and health equity funds, were introduced to improve public sector performance and encourage the utilisation of health services in Cambodia (Chhea *et al*., 2010). The view is that every employee will perform better if the incentives package is rewarding and goes along with meeting the individual's needs, taking into consideration economic factors (Henderson and Tulloch, 2008; Platis *et al*., 2015). For instance, the important self-job performance parameters identified include 'self-satisfaction of quantity of work, self-satisfaction of productivity, self-satisfaction of initiatives, self-satisfaction of working targets, and self-satisfaction of quality improvements' (Platis *et al*., 2015:1).

Afful-Broni (2012) revealed that the problem of low job performance was due to a lack of motivation in Ghana. Thus, mechanisms to direct a proportion of funds to workforce financial incentives would enhance worker performance and contribute to improved outcomes (World Health Organisation (WHO), 2006; Platis *et al*., 2015). The World Health Organisation suggests that improved performance will mean availability, improved waiting time, adequate staff ratios, and attendance of health workers. For this reason, the World Health Organization declared 2006 to 2015 as 'a decade for the health workforce' with emphasis on the performance of adequate human resources for health (WHO, 2006; Platis *et al*., 2015). The reason was that the quality of the health workforce essentially impacts on health system performance (Rowe *et al*., 2009; Bonenberger *et al*., 2014). Bonenberger *et al*. (2014) admonished that, it is worth strengthening human resource management skills at the district level and supporting district health managers to implement retention strategies. These analysts justified this point by indicating that effective human resource management practices at the district level influenced health worker motivation and job satisfaction, thereby reducing the likelihood of turnover in Ghana (Bonenberger *et al*., 2014).

Studies have argued that performance does not depend only on knowledge and skills but on motivation and job satisfaction (Zurn *et al*., 2002; Zurn and Dumont, 2008; Alhassan *et al*., 2013). This position is supported by a study, which suggested that the effects of motivation and job satisfaction on turnover intention and motivation and satisfaction could be improved by district health managers to increase the retention of health workers in Ghana (Bonenberger *et al*., 2014). Zurn and Dumont (2008) argue that the working environment of a health facility will make great strides in improving the effectiveness and quality of the services provided by the health worker. The enthusiasm with which the health workers perform serves as a motivation for them to improve their performance and that of the health sector (Lutwama *et al*., 2012). Research showed that, in every organisation, employees' motivation is necessary, especially in government-owned healthcare facilities (Alhassan *et al*., 2013). Another study argued that the reward package matters a lot and should be of concern to both employees and employers (Muogbo, 2013).

Motivation is from the Latin word *movere*, which means to move, influence, affect or excite (Luthans, 2005; Latham and Pinder, 2005; Re'em, 2011). Aladwan *et al*. (2013:408) define motivation as 'the set of forces that lead people to behave in particular ways'. It is also 'the fuel that drives people towards achieving their goals

and objectives' (Okorley and Boohene, 2012:121). Ampofo (2011) argues that where there is motivation, there is a strong desire and an enthusiasm to achieve in Ghana, thus, a lack of motivation shows a lack of enthusiasm (Attrams, 2013). Kinicki and Williams (2008) also indicate that motivation is not observed but can be inferred from a person's behaviour.

While motivation is seen as the most important factor in improving health worker performance, it is also the most difficult to manage (Kinicki and Kreitner 2009; Hafiza *et al*., 2011). The reason is that, if a worker lacks the ability or knowledge to perform, a training programme could help to acquire more skills: tools can also be provided if there are none. However, if motivation is the problem, there will be difficulty in determining what could be done to motivate the employee to work harder and well (Griffin and Moorhead, 2007; Attrams, 2013). A significant relationship between motivation and performance was found in Ghana (Afful-Broni, 2012). If individuals are highly motivated, they will perform better, thus improving the quality of health care delivered. Additionally, better performance may lead to a sense of achievement resulting in greater motivation. Thus, the view was that motivation was related to performance in Jerash (Ali and Howaidee, 2012). While some researchers disagree on how much influence motivation has on performance, others argue that high levels of performance can be difficult to achieve when there is little or no motivation to perform (Frederick-Recascino and Hall, 2003; Attrams, 2013).

Ghana is one of the Sub-Saharan African countries making considerable progress in many health outcome indicators (Alhassan *et al*., 2013). Alhassan *et al*. (2013) reported that the percentage of antenatal and postnatal coverage improved from 42.2% and 38.8% in 2008, to 91.3% and 64.7% in 2011, respectively. The percentage of deliveries attended by skilled health staff also increased from 44.2% in 2008 to 53.3% in 2011. However, these achievements were not sufficient to help the country attain the 2015 targets for health-related millennium development goals (MDGs). Perhaps, this was due to factors, including understaffing in health facilities, inequitable distribution of health sector human resources, demotivated staff and inadequate healthcare infrastructure (Alhassan *et al*., 2013). Dalinjong and Laar (2012) confirmed that the National Health Insurance Scheme (NHIS) had promoted access to healthcare among the insured. However, the increased use of health services by those who were insured had led to increased workloads for the health care providers, thus, influencing their behaviour, and culminating in long waiting time.

Consequently, the workload on staff at Korle-Bu Teaching Hospital (ATH) in southern Ghana has seen a significant increase over the years, especially since the introduction of the NHIS. The general outpatient attendances recorded were approximately 357,086 in 2010; 365,387 in 2012; and 369,798 in 2013. However, these did not correspond with the rate of increase in staff numbers by way of recruitment (Korle Bu Teaching Hospital (KBTH), 2013). The Korle-Bu Teaching Hospital cannot exempt itself from contempt of motivation, which is likely to affect the performance of staff. The compelling and competing demands facing the hospital are affecting the best delivery of health care to Ghanaians since it is one of about five teaching hospitals in the country/Ghana (Damanka *et al*., 2016). Most of the challenges facing the hospital are inadequate staff compounded with inadequate and frequently broken-down equipment. The shortage of staff cuts across all clinical departments. The continuous trend of this factor could affect the motivation and

performance, thereby affecting the overall quality of healthcare (KBTH, 2013). This explains why efforts aimed at ensuring quality of care and encouraging health staff retention should attempt to remove the institutional barriers that discourage the use of rural public health services (Chhea *et al*., 2010). Even though management has instituted some motivational packages, including an award system, it is believed that the current coverage is limited (KBTH, 2015). Arguably, the migration of health workers from Korle-Bu Teaching Hospital to better endowed clinics and hospitals is becoming common. This migration has created problems of understaffing and demotivation of staff due to excessive workloads. Moreover, requests from staff to be transferred to another hospital are being turned down (KBTH, 2015).

This could be linked to the boredom-prone workers who viewed themselves as underemployed, perceived less support from their organisation, and received lower performance ratings from their supervisors (Watt and Hargis, 2010). Watt and Hargis (2010) observed a relationship between trait boredom (i.e., boredom proneness), subjective underemployment, perceived organizational support, and job performance. Few studies have examined some aspects of motivation, job satisfaction and performance among health workers in Ghana in the areas of health worker (internal customer) satisfaction and motivation (Agyepong *et al*., 2004), motivational packages and their effects on employee performance (Ampofo, 2011), the relationship between motivation and job performance (Afful-Broni, 2012), the association between health worker motivation and healthcare quality efforts (Alhassan *et al*., 2013), motivation and employee satisfaction: perceptions of workers (Attrams, 2013), and the effects of health worker motivation and job satisfaction on turnover intention (Bonenberger *et al*., 2014).

Apparently, none of these existing studies has examined how intrinsic and extrinsic motivation factors could influence the performance of health workers at tertiary healthcare facilities in Ghana (see Afful-Broni, 2012; Damanka *et al*., 2016). This study assessed the association between both intrinsic and extrinsic motivation and health workers' performance at the Korle-Bu Teaching Hospital. The study was to identify how motivation could influence how health workers performed their duties and help management and policy makers to find ways to curb the present undesirable situation and understand pertinent motivation issues. The outcomes of the study will serve as a catalyst for improvement in staff motivation that will improve the quality of healthcare delivery at KBTH. In totality, when healthcare workers are motivated, they will perform better, and this will help uplift the hospital to a state that will make it more functional and, in a way, guarantee its effectiveness. This paper suggests the need for policy makers, stakeholders, managers, and all players in the health sector to develop appropriate strategies for improving the motivation and performance of health workers.

2. Literature review

2.1. *Job performance and satisfaction*

Arguably, performance as a phenomenon is closely related to aspects of effectiveness, knowledge management, and quality from one side and to management, financing, and development of the organisation from the other; for doctors and nurses - performance issues are inextricably linked to patient safety (Platis *et al*., 2015). Thus, performance cannot be measured without attributes such as job satisfaction and motivation (Blaauw *et al*., 2013). Blaauw *et al*. (2013) contend that job satisfaction is

an important determinant of health worker motivation, retention, and performance, all of which are critical to improving the functioning of health systems in low-and middle-income countries. Platis *et al*. (2015, p.480) suggest that the most important parameters of job satisfaction are: 'satisfaction from manager, satisfaction from manager administration, satisfaction of ways of working, satisfaction of recognition, satisfactory of working hours and satisfactory of working security'. The challenge to achieving effectiveness among healthcare professionals may include exposure to psychological aggression at work (Schat and Frone, 2011). Schat and Frone (2011, p.23) demonstrated that exposure to psychological aggression at work negatively predicted both task performance and contextual performance, and that 'these relations were explained by decrements in job attitudes and health associated with exposure to psychological aggression at work'.

2.2. *Motivation*

Motivation is likely to strongly influence any effort to change or improve health workers and hospital practice (Mbindyo *et al*., 2009; Platis *et al*., 2015). There are two sources of motivation: intrinsic and extrinsic (Nawab *et al*., 2011; Afful-Broni, 2012). Intrinsic motivation means to perform a task because it is inherently interesting or enjoyable (Ryan and Deci, 2000). Extrinsic motivation means to perform an activity to attain an outcome (Jones and George, 2011; Re'em, 2011). Maslow (1943) argued that once people satisfy their social needs, they often would want to hold themselves and be held by others in high esteem. Esteem needs produce satisfaction as power, prestige, status, and self-confidence. It includes both internal esteem factors such as self-respect, autonomy, and achievement; and external esteem factors, such as status, recognition, and attention. A sense of the degree of importance emerges after a person feels 'belonging' to a group. Esteem needs are categorised as external motivations and internal motivations.

2.3. *Intrinsic motivation factors*

Cerasoli *et al*. (2014) found that intrinsic motivation predicted more unique variance in the quality of performance, whereas incentives were a better predictor of the quantity of performance. For the purposes of this study, emphasis is placed on the following intrinsic motivation factors: achievement, continuous education, supervision, and incentive packages.

Achievement: The need for achievement (n-Ach) is typical of people who are driven by the challenge of success and the fear of failure - these people normally want to do something better or more efficiently than it has been done before (McClelland, 1965; Ramlall, 2004; Helms, 2006; Cerasoli *et al*., 2014). Health workers' desire to achieve both personal and organisational goals may be likened to the theory of goal setting, which means that when workers are given specific and pronounced objectives, instead of vague ones, they achieve the former faster (Locke and Latham, 2005; Cerasoli *et al*., 2014). Lambrou *et al*. (2010) revealed that 'achievement' was ranked first among the four main motivators, followed by remuneration, co-workers, and job attributes, among medical and nursing staff in a public general hospital in Cyprus.

Continuous education, training and professional development: Dieleman *et al*. (2006) show that continual education, interactive training and professional development directed towards the priority health conditions and needs of the population could improve the health workers' competency and motivation (see Cerasoli *et al*., 2014).

The World Health Organisation (WHO, 2006) notes that training programmes with a focus on local needs can help improve health worker performance and lessen attrition. Manongi *et al*. (2006) placed emphasis on career development as one of the nine motivational themes identified. This enables workers to cope with job requirements and take more challenging tasks, thus contributing to job satisfaction and improved health delivery (Mathauer and Imhoff, 2006; Willis-Shattuck *et al*., 2008; Cerasoli *et al*., 2014). Prabhakar et al. (2016) suggested that training should made critical part of the government healthcare entity's organizational structure since training can influence health staff performance.

Supervision: Indeed, health workers perform well if there is supervision and feedback (Mathauer and Imhoff, 2006). Manongi *et al*. (2006) identified nine motivational themes and placed emphasis on supportive supervision as key. Improvement of communication between different levels of the health system promotes performance. However, in a facility where there are a lot of junior staff and supervision is reduced, the staff experience frustrations in career development and the use of skills (see Cerasoli *et al*., 2014). Tims *et al*. (2012) found that self-reports of job crafting correlated positively with colleague-ratings of work engagement, employability, and performance, while self-rated job crafting behaviours correlated positively with peer-rated job crafting behaviours.

Incentive packages: Arguably, the existence of periodic salary increases, bonuses and allowances contribute to health worker motivation and thus, the enthusiasm to improve performance (Henderson and Tulloch, 2008; Cerasoli *et al*., 2014). Manongi *et al*. (2006) revealed that, while money as a financial incentive remains the most significant strategy of motivation, this alone cannot motivate staff, but non-financial incentives like performance appraisal and promotions are prioritised by health workers for improving the services they deliver (Cerasoli *et al*., 2014). To create a balance, Miller and Babiarz (2014) suggested that research on performance incentives should focus on the underlying conceptual issues that constrain the design of better performance incentives in low-and middle-income countries' health programmes.

2.4. *Extrinsic motivational factors*

Herzberg *et al*. (1959) developed a two-factor theory arguing that certain groups of factors (motivations) could lead to job satisfaction whereas another group (hygiene factors) could prevent dissatisfaction. For the purposes of this study, emphasis is placed on the following extrinsic motivation factors: availability of equipment and materials, working environment, recognition and promotion, job security, salaries and benefits and interpersonal relationships.

Equipment and materials: Indeed, adequate resources and appropriate infrastructure can improve the morale of health workers significantly, thus improving performance – the absence is a source of demotivation (Willis-Shattuck *et al*., 2008; Cerasoli *et al*., 2014). Henderson and Tulloch (2008) conclude that the working environment has an influence on job satisfaction and performance since most workers require adequate facilities and conditions to do their work properly. Therefore, Anitha (2014) suggests that special focus and effort are required specifically on the factors regarding the working-environment, among others.

Job Security: Hitka and Sirotiakova (2009) note that job security is an important motivational factor for workers since work is central in the lives of people (Cerasoli *et al*., 2014). The lack of job security in the organisation may affect the personal lives of workers as well as the performance of the organisation. Sageer *et al*. (2012) suggest that organisation development factors responsible for employee satisfaction include job security factors; and opportunities that give satisfaction to employees such as promotion and career development.

Interpersonal relationship: Paillé *et al*. (2014) indicate that organisational citizenship behaviour for the environment fully mediates, among other things, the relationship between strategic human resource management and environmental performance. Studies revealed that health workers rated motivating factors such as good interpersonal relationships with colleagues at work as an enhancement to performance (Peters *et al*., 2010; Petteson *et al*., 2010; Cerasoli *et al*., 2014). Anitha (2014) suggests that the working environment should seek to enhance interpersonal relationships since the variables that have a major impact are the working environment and team and co-worker relationships.

Improved salary: Behavioural theorists argue that while higher salaries make employees happier, their absence could make people angry and lead to dysfunctional teams (Jenkins *et al*., 1998; Cerasoli *et al*., 2014). Importantly, payment of salaries and other allowances on a regular basis is a key driver of motivation and performance of health workers (WHO, 2006; Cerasoli *et al*., 2014). Willis-Shattuck *et al*. (2008) found that low salaries demotivated health workers as they felt that their skills were not valued. However, improved salaries and benefits have been found to be major monetary incentives for workers to remain in the health sector (Henderson and Tulloch, 2008; Cerasoli *et al*., 2014).

Workload: Glenton *et al*. (2013) report that, even though lay health workers (LHWs) were motivated by factors including altruism, social recognition, knowledge gain and career development, some health professionals thought that LHWs added to their workload and feared a loss of authority. Jaskiewicz and Tulenko (2012) propose that, when community health workers (CHWs) have a manageable workload in terms of a realistic number of tasks and clients and respect and acceptance from the community and the health system, they can function more productively and contribute to an effective community-based strategy. Therefore, it is recommended that each country facing shortages of health workers needs to identify the underlying reasons for the shortages and determine what motivates health workers to remain in the health sector (Henderson and Tulloch, 2008; Cerasoli *et al*., 2014). Canavati *et al*. (2016) found that stock-outs, difficulties in reaching out to migrant and mobile populations, insufficient means of transportation, and dwindling worker satisfaction also affected the job performance of Village Malaria Workers (VMWs) and Mobile Malaria Workers (MMWs) in Cambodia.

Recognition and promotion: Yavuz (2004) notes that workers will work harder if they notice that their work is recognized or if they are involved in decision-making that concern their work. Awases *et al*. (2013) found that among the factors affecting the performance of nurses negatively in Namibia were a lack of recognition of employees who were performing well and poor working conditions. However, Mafini and Dlodlo (2014) found statistically significant relationships between job satisfaction and

four extrinsic motivation factors: remuneration, quality of work life, supervision, and teamwork amongst employees in a public organisation in South Africa.

3.0. Materials and Methods

3.1. *Study setting and design*

The study adopted a cross-sectional design using the quantitative research approach at the Korle-Bu Teaching Hospital. The Korle-Bu Teaching Hospital is one of five teaching hospitals in Ghana with a bed capacity of over 2000, daily OPD attendance of over 1500 and patient admission of over 250; and delivers services in twenty-one clinical and diagnostic departments/units (Damanka *et al*., 2016; KBTH, 2013). As an NHIS accredited health provider located in southern Ghana, it provides healthcare services to the insured members of the NHIS. The Korle-Bu Teaching Hospital also serves clients from all parts of the country and beyond (KBTH, 2013).

3.2. *Study population and sampling*

A simple random sampling method was applied to select the participants (Lavrakas, 2008). The total numbers were selected according to the quota assigned to the categories of clinical health workers obtained from the administrative authorities of the surgical, radiology, maternity and laboratory departments in alphabetical order with numbers assigned to each. The clinical staff population of the hospital was approximately 2566 as at 2013 (KBTH, 2013). Clinical health workers, including nurses, midwives, doctors, pharmacists, biomedical scientists and radiographers made up the study population. Therefore, it is very diverse and has a fair representation of Ghana's health workers' population. The inclusion criteria involved all full time employed clinical staff with at least six months' work experience, among others. This was to gain a response from health workers who were more informed about the working environment. All clinical staff who were officially on leave or absent because of illness, and all categories of supporting staff who do not directly provide care to patients at the hospital were excluded. A similar method was applied in a study, which conducted a cross-sectional survey in three districts of the Eastern Region in Ghana and interviewed 256 health workers from several staff categories (doctors, nursing professionals, allied health workers and pharmacists) on their intentions to leave their current health facilities as well as their perceptions of various aspects of motivation and job satisfaction (Bonenberger *et al*., 2014).

3.3. *Data collection*

Data for the study were collected using the quantitative research approach from a total of 324 out of estimated 338 clinical health workers at the Korle-Bu Teaching Hospital in June, 2016. Data were collected using an adapted Likert scale questionnaire developed by Bennet *et al*. (2000), which was used to measure motivation of health personnel in district hospitals in Kenya (Mbindyo *et al*., 2009) and was validated at a community level hospital in Zambia (Mutale *et al*., 2013). The questionnaire was divided into three sections. Section A collected data on socio-demographic characteristics: age, sex, rank/position, educational background, ethnicity, religion and income. Section B collected data on the intrinsic motivation factors: achievement, continuous education, supervision, and incentive packages. Section C collected data on the extrinsic motivation factors: availability of equipment and materials, job security, interpersonal relationship, improved salary, workload, and recognition and promotion. The responses consisted of 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. The structured questionnaires

were self-administered after distribution to the participants by a research assistant who was orientated on the aims of the study and questionnaire administration with supervision by the researchers. Each respondent took 10 to 20 minutes to answer the questionnaire. The study variables measured have been shown (Table I about here).

Table I: Study Variables

Variables	Description	Measurement
Dependent		
Health worker performance	The variable is defined in this study as staff being available, competent, productive and responsive in order to improve upon the quality care given to clients.	Extent of Health worker agreement or disagreement to perception of performance
Independent		
Intrinsic Motivational factors		
Achievement	Achievement and satisfaction improve performance	Extent of Health worker agreement or disagreement
Continuous Education	Continuous education through training programmes	Extent of Health worker agreement or disagreement
Supervision	Working with little or no supervision	Extent of Health worker agreement or disagreement
Incentive packages	Incentive packages available at ATH	Extent of Health worker agreement or disagreement
Extrinsic Motivational Factors		
Equipment and Materials	Availability of materials and equipment to work with	Extent of Health worker agreement or disagreement
Job security	Availability of job security	Extent of Health worker agreement or disagreement
Interpersonal Relationship	Good interpersonal relationship among co workers	Extent of Health worker agreement or disagreement
Improved Salary	Improving salary of health worker	Extent of Health worker agreement or disagreement
Workload	Feeling burned out and emotional drained after work	Extent of Health worker agreement or disagreement
Recognition and promotion	Recognized for job done and appropriate reward	Extent of Health worker agreement or disagreement

3.4. *Data analysis*

Data entry and statistical analysis were done using Microsoft excel and STATA Version 13.0 (STATA Corp College, Stata TX USA). Continuous variables were summarised as means and standard deviations and discrete variables were summarised as frequencies and percentages. An ANOVA test was conducted to compare the effect of motivation on job performance. Simple and Multiple Linear regression models were used to estimate the overall effect of the independent variables (extrinsic and intrinsic motivation) on the outcome variable (job performance). The level of significance was set at a probability less than 5% ($p<0.05$).

3.5. *Ethical approval*

The study was approved by the Ghana Health Service Ethics Review Committee and Korle-Bu Teaching Hospital's Scientific and Ethics Review Board with reference number: KBTH-STC/IRB/00016/2016, before the study was conducted. Participants signed an approved consent form. Issues of confidentiality and anonymity were addressed.

4.0. Results

4.0. *Socio-demographic characteristics of respondents*

The study surveyed 338 employees and 324 completed questionnaires were received representing a response rate of 95.9% (324/338). About 191 (59%) respondents were females and 133 (41%) were males. Close to half, 143 (44.1%) were in the age group 30-39 years, 119 (36.7%) were in the age group 20-29 years while no one was above 60 years. About 118 (36.4%) had a bachelor's degree, 98 (30.2%) had a diploma while 39 (12%) had certificates. About 234 (72.2%) were nurses, 56 (17.3%) were doctors, 17 (5.2%) were midwives, 11 (3.4%) were pharmacists while the least, 3 (0.9%) were biomedical scientists and radiographers. About 98 (30.2%) had worked for 5-9 years, 74 (22.8%) had worked for 1-4 years and 36 (11.1%) had worked for more than 15 years. The results are shown (Table II about here).

Table II: Socio-demographic characteristics of respondents

Variable	Frequency	Percent (%)
Sex		
Male	133	41.0
Female	191	59.0
Total	324	100
Age group		
< 20	2	0.6
20-29	119	36.7
30-39	143	44.1
40-49	40	12.3
50-59	20	6.2
60 and above	0	0.0
Total	324	100
Level of education		
Certificate	39	12
Diploma	98	30.2
Bachelor's degree	118	36.4
Post graduate	55	17.0
Others	14	4.3
Total	324	100
Marital status		
Married	194	59.9
Single	124	38.3
Divorced	2	0.6
Separated	4	1.2
Widowed	0	0.0
Total	324	100
Profession		

Doctor	56	17.3
Nurse	234	72.2
Midwife	17	5.2
Pharmacist/Technician	11	3.4
Biomedical scientist	3	0.9
Radiographer	3	0.9
Total	324	100
Duration of work		
Less than a year	61	18.8
1-4	74	22.8
5-9	98	30.2
10-14	55	17.0
15 years and above	36	11.1
Performance as quality of care		
Agree	318	98.1
Disagree	6	1.9
Total	324	100

4.2. *Intrinsic motivation factors and job performance*

The results of the ANOVA showed that certain intrinsic factors were significantly associated with job performance whereas others were not. There was a significant association between achievement and satisfaction at the job place and job performance (F (1, 322) =9.28, p=0.003). Incentive package available at the job place was found to be significantly associated with job performance (F (1, 322) =24.55, p<0.001). Continuous education through training and working with little or no supervision were found to be insignificantly associated with job performance, given a statistic of (F (1, 322) =1.34, p=0.248) and (F (1, 322) =2.32, p=0.137) respectively. The results are displayed (Table III about here).

Table III: Intrinsic motivation factors and job performance

Intrinsic motivational Factors	**Mean score (SD)**	**F**	**p-value**
Achievement	4.13 (0.82)	9.28	0.003
Continuous education	4.37 (0.92)	1.34	0.248
Little or no supervision	2.32 (1.16)	2.32	0.137
Incentive package	3.10 (1.49)	24.55	<0.001

4.3. *Extrinsic motivation factors and job performance*

The results showed that all the extrinsic motivation factors were significantly associated with job performance. These extrinsic motivation factors include availability of materials and equipment to work with, availability of job security, good interpersonal relationship among co-workers, improving salary of health worker, feeling burned out and emotionally drained after work, and recognition and promotion at the job place. They all had a p value <0.001 except for feeling burned out and emotionally drained after work which had a p of 0.002. The results are presented (Table IV about here).

Table IV: Extrinsic motivation factors and job performance

Extrinsic motivational factors	Mean Score (SD)	F	p-value
Availability of equipment	4.02 (1.17)	34.84	<0.001
Job Security	4.08 (0.96)	48.81	<0.001
Interpersonal relation	4.36 (0.74)	54.39	<0.001
Recognition and Promotion	4.09 (0.91)	72.21	<0.001
Improved Salary	3.65 (1.23)	38.34	<0.001
Workload	4.15 (0.97)	11.93	0.002

4.4. *Association between intrinsic, extrinsic motivation factors and job performance*
The results revealed that achievement and satisfaction at the job place and incentive package available at the job place were the intrinsic motivation factors that were significantly associated with job performance in the unadjusted linear regression model. The effect of a unit increase in a respondent's achievement and satisfaction and incentive package on their job performance was 0.51 and 0.44 respectively. All the extrinsic motivation factors were significantly associated with job performance at the unadjusted linear regression model. The results revealed that the effect of a unit increase in availability of equipment on job performance was 0.66, the effect of a unit increase in job security on job performance was 0.94, the effect of a unit increase in good interpersonal relationship with co-workers on job performance was 1.28, and the effect of a unit increase in recognition and promotion on job performance was 1.18. Moreover, the effect of a unit increase in improved salary on job performance was 0.66, and the effect of a unit increase in feeling burned out and emotionally drained after work on job performance was 0.48.

The overall multiple regression model showed that intrinsic motivation was significantly associated with job performance ($F(4, 319) = 8.66$, $p<0.001$). Continuous education through training and working with little or no supervision were intrinsic motivation factors that did not significantly predict job performance ($p>0.05$). The multiple regression model further showed that extrinsic motivation could significantly predict job performance ($F(6, 317) = 23.97$, $p<0.001$). Even though feeling burned out and emotionally drained after work significantly predicted job performance in the simple linear regression model, its significance disappeared in the multiple linear regression model after controlling for the effect of other extrinsic motivational factors ($p=0.080$). The results are shown (Table V about here).

Table V: Simple and Multiple Linear regression: Association between intrinsic, extrinsic motivation factors and job performance

Motivational factors	Unadjusted model Coefficients (95% CI)	p-value	Adjusted model Coefficients (95% CI)	p-value
Intrinsic motivation				
Achievement	0.51 (0.18, 0.83)	0.003	0.49 (0.15, 0.83)	0.005
Continuous education	0.17 (-0.12, 0.47)	0.248	-0.07 (-0.38, 0.24)	0.650
Little or no supervision	0.18 (-0.06, 0.41)	0.137	0.14 (-0.08, 0.37)	0.217
Incentive package	0.44 (0.27, 0.62)	<0.001	0.42 (0.24, 0.60)	<0.001
Extrinsic motivation				
Availability of equipment	0.66 (0.44, 0.88)	<0.001	0.29 (0.07, 0.52)	0.012
Job Security	0.94 (0.67, 1.20)	<0.001	0.30 (0.02, 0.59)	0.038
Interpersonal relation	1.28 (0.93, 1.62)	<0.001	0.70 (0.35, 1.04)	<0.001
Recognition and Promotion	1.18 (0.90, 1.45)	<0.001	0.56 (0.26, 0.86)	<0.001
Improved Salary	0.66 (0.45, 0.87)	<0.001	0.28 (0.08, 0.49)	0.007
Workload	0.48 (0.21, 0.76)	0.002	0.21 (-0.03, 0.46)	0.080

5.0. Discussion

Maslow (1943) explains that esteem needs produce satisfaction as power, prestige, status and self-confidence. It includes both internal esteem factors like self-respect, autonomy and achievement; and external esteem factors, such as status, recognition and attention. Based on this premise, the study identified intrinsic motivation factors, which were perceived by respondents as impacting on their job performance. Achievement and satisfaction at the job place were significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model.

An achievement can motivate employees to look up to solving more difficult tasks and thereby increasing their performance. This finding supports the reason why 'achievement' was ranked first among the four main motivators among health professionals in a public general hospital in Cyprus (Lambrou *et al*., 2010). Personal satisfaction also propels employees to look forward to each day at work and psyche them up to overcome any challenge they might encounter. Job satisfaction has been an important predictor of an individual's intention to leave the workplace - it was able to measure job satisfaction among maternal and newborn health workers in Nepal (Batura et al., 2016).

Respondents were of the view that incentive packages at the hospital could impact on their job performance as incentive package available at the job place was significantly

associated with job performance in both the unadjusted linear regression model and overall multiple regression model. This suggests that when incentives are appropriately given to achieve the intended purpose, they usually lead to improved performance. On the other hand, when there is inequity in the package provided, it could lose its purpose and this will negatively affect their performance. This explains why another study argued that financial incentives alone may not be able to motivate staff since non-financial incentives like supportive supervision, performance appraisal and promotions are prioritised by health workers for improving the services they deliver (Manongi *et al*., 2006).
This notion was confirmed by other studies, which reported that financial and non-financial incentives and human resources management tools play an important role with regards to increasing motivation of health professionals (Mathauer and Imhoff, 2006). This finding supports the suggestion that mechanisms to direct a proportion of funds to workforce financial incentives would enhance worker performance and contribute to improved outcomes (WHO, 2006). It is anticipated that every employee will put up improved performance if the incentive packages are rewarding (Henderson and Tulloch, 2008). This explains why a study argued that work environment is a major factor for better performance of human resource for health in any organisation – these factors include jobs matched with incentives (Aziz et al., 2015).

As previously stated, behavioural theorists argue that, while higher salaries make employees happier, its absence make people angry and leads to dysfunctional teams (Jenkins *et al*., 1998). Against this background, the study findings showed some relationship between extrinsic motivation factors and job performance. The study found that availability of the right materials and equipment make achieving tasks easier and quicker and this leads to improved performance. This extrinsic motivation factor was significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model. Materials such as gloves, syringes, and oxygen outlets enable health professionals to work more efficiently. Their absence could slow work down and prevent staff from delivering quality service.

Moreover, without adequate gloves, health professionals may expose themselves to harmful and hazardous materials and this may prevent them from working efficiently. This supports the earlier conclusion that, to improve performance, working conditions must be improved (Alhassan *et al*., 2013). This finding is consistent with another argument that the performance of workers depends on ability, skills, tools or equipment and motivation (Griffin and Moorhead, 2007; Lussier, 2008; Re'em, 2011). Hence, Sallis (2014) contends that appropriate structures for professional and personal enhancement for quality management processes from members of the health workforce are crucial in any health system. Moreover, adequate resources and appropriate infrastructure may improve the morale of health workers significantly, thus improving performance (Willis-Shattuck *et al*., 2008). Henderson and Tulloch (2008) support this view by concluding that the working environment has a strong influence on job satisfaction and performance, since all workers require adequate facilities and improved conditions to do their work effectively (see Aziz et al., 2015).

Availability of job security was significantly associated with job performance. This extrinsic motivation factor was significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model. This

means that job security is essential in providing the needed psychological stability to staff to enable them to work more efficiently (see Mpembeni et al., 2015). Some studies argue that, when there is the possibility of losing a job hangs on the neck of a staff, they would lack the confidence and peace to put in their best. This eventually affects their day to day performance, leading to an overall minimal performance. The lack of job security in the organisation may affect the personal lives of workers as well as the performance of the organisation (Hitka and Sirotiakova, 2009). Hitka and Sirotiakova (2009) argue that when people feel they have job security, they tend to put in their best and are eager to improve their skills to enhance their performance. A study confirmed that community health workers were more likely to be motivated by community respect and hope for employment in Tanzania (Mpembeni et al., 2015).

All respondents in the study agreed that good interpersonal relationships with co-workers enhance work performance. This extrinsic motivation factor was significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model. A study observed associations between changes in stress management skills and changes in relationships in Sierra Leone (Vesel et al., 2015). The health profession is an interdisciplinary team involving contributions from other specialised areas within the workforce. When there is a lack of interpersonal relationships with co-workers, it is very difficult to communicate with each other and this could adversely affect the quality of output in the hospital. At every stage, communication (whether verbal or written) is required for continuity of health provision. When communication is poor, the process is either truncated or its quality is compromised, leading to reduced performance. In cases where interpersonal communication is effective, exchange of ideas, skills and experience is often used to obtain optimum care for the patient, and this leads to improved performance. A similar assertion has been documented in previous studies (Peters *et al*., 2010; Petteson *et al*., 2010). The need for interpersonal relationships among health workers to improve job performance and cooperation at work has been emphasized (Grujičić et al., 2016).

Recognition and promotion were also identified as a major factor in motivating staff to improve job performance. This extrinsic motivation factor was significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model. When this happens, the staff may become aware that their efforts have been recognised both in private and publicly. This gives the staff some enthusiasm and they will want to do more. Such situations lead to improved performance across the value chain. However, when the system fails to recognise the contribution of staff, they become discouraged and refuse to give their best. This gradually leads to apathy towards assigned roles and responsibilities, leading to a decline in the general performance similar to earlier observations (Mbindyo *et al*., 2009; Grujičić et al., 2016).

Therefore, a study recommends the need for awards for good job performance; and promotion and advancement opportunities to increase the level of work motivation and job satisfaction of health workers in rural areas (Grujičić et al., 2016). Employees look out for promotions when they are due (Hitka and Sirotiakova, 2009; Grujičić et al., 2016). When this fails to happen, they tend to think that their efforts are not good enough and they are not needed by the organisation. They then tend to put in minimal effort, which gradually affects their performance. However, when they are promoted

as they envisaged, it motivates them to find more effective ways of improving their contribution to the organisation, leading to improved performance. When both recognition and promotion occur at the appropriate time, the performance improvement is twofold and vice versa. A related study suggests that, while recognition is highly influential in health workers' motivation, adequate resources and appropriate infrastructure may improve the workers' morale significantly (Willis-Shattuck *et al*., 2008; Grujičić et al., 2016). For this reason, a study concludes that reward package matters a lot and should be of concern to both employees and employers (Muogbo, 2013).

Respondents in the study were unanimous in their opinion on the impact of improved salary on overall job performance. This extrinsic motivation factor was significantly associated with job performance in both the unadjusted linear regression model and overall multiple regression model. A study concludes that financial rewards and professional development were the two main predictors of job satisfaction/performance (Zhang et al., 2016). Respondents were of the opinion that an improved salary was enough to meet their expenses and influence their performance. Arguably, when salaries are low, staff are unable to meet their normal expenses and they might want to find alternative sources of income. This gives them divided attention and they may come to work exhausted from other jobs. Therefore, they are unable to put in their best, leading to reduced performance. A similar argument has been recorded in earlier studies (McCoy *et al*., 2008; Zhang et al., 2016).

However, when salaries are adequate and are paid on time, it motivates staff to concentrate on their assigned roles and be committed to their work. They become more motivated to give their utmost best, leading to improved performance. This finding relates to an earlier suggestion that improved salaries and benefits are major financial incentives for workers to be retained in the health sector (Henderson and Tulloch, 2008). It was against this motive that Vietenam has encouraged doctors to work in communities in remote and less privileged areas by establishing permanent staff positions with salaries and allowances from the state budget since the 1990s (Henderson and Tulloch, 2008; Zhang et al., 2016).

6.0. Conclusion

The study examined how intrinsic and extrinsic motivation factors could influence the performance of health workers at a tertiary healthcare facility in Ghana. The study identified achievement and personal satisfaction and incentive package as intrinsic motivation factors that could influence performance of health workers at the Korle-Bu Teaching Hospital in Ghana. The study argues that the effect of a unit increase in a respondent's achievement and satisfaction and incentive package on their job performance was 0.51 and 0.44 respectively. This contradicts the conclusion that financial incentives alone are not enough to motivate workers (Agyapong *et al*., 2004). However, continuous education and working with little or no supervision were not significantly associated with job performance. This may contradict the revelation that supportive supervision may be important in motivating workers to improve their performance (Manongi et al., 2006).

The study concludes that all the extrinsic motivation factors (availability of equipment, job security, good interpersonal relationship with co-workers, recognition

and promotion, improved salary, workload or feeling burned out and emotionally drained after work) could significantly predict job performance. For instance, the effect of a unit increase in a good interpersonal relationship with co-workers on job performance was 1.28. The findings are similar to previous studies, which concluded that effective interpersonal relationships, recognition and promotion were influential factors that could enhance health workers' performance (Henderson and Tulloch, 2008; Peters *et al*., 2010; Petteson, *et al*. 2010).

The study concludes that the availability of equipment and drugs could motivate staff to work to enhance their performance. Furthermore, a similar study documented that improved salary and a lesser workload were other extrinsic motivation factors that could influence health workers' performance in a health institution (Willis-Shattuck *et al*., 2008). However, there appears to be a lack of relationship with this study, which found that while feeling burned out and emotionally drained after work significantly predicted job performance in the simple linear regression model, its significance disappeared in the multiple linear regression model after controlling for the effect of other extrinsic motivational factors.

It is therefore recommended that management of healthcare institutions and health policy makers (in Ghana and elsewhere) should involve employees at all stages of designing motivational factors that directly influence performance to ensure buy-in from all. There is a need for employees as well as managers to be educated thoroughly on the impact of motivational factors on job performance. This will ensure that subjectivity and office politicking do not distort the reviews as suggested - managers should have the ability to listen, coach, counsel and develop rather than focus on judgment alone (Johns, 2010).

6.1. *Limitations and future research*

The first limitation was that, since the study focused on the influence of intrinsic and extrinsic motivation factors on the performance of employees at a teaching hospital (KBTH), any conclusions drawn from the study may not fit into every health institution within Ghana and beyond. However, the conclusions might extend to other health institutions that share similar organisational structure, hierarchy, and culture. The second potential limitation was that employee survey data was used as the basis for evaluating employees' understanding of the influence of motivation factors on performance. Such data is limited to making descriptive analysis and associations and does not provide insight into the cause and effect of the factors studied.

The third limitation was the fact that the data might be subject to bias by how the questionnaire was structured and the sincerity of respondents' answers. Recall bias may also have influenced the acquisition of information from the respondents. Perhaps, new evidence might have emerged since the study was conducted. Nonetheless, the internal and external validity of the study was not adversely affected (Malterud, 2001). The other limitation is that the delay in the publishing process means that new evidence might have emerged since the study was conducted.

Future researchers should seek to examine the influence of intrinsic and extrinsic motivational factors on health workers' performance by increasing the number of participants and health facilities in the country. There will be a need to apply

qualitative research methods to understand the perspectives of the health workers of the quantitative responses provided.

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