
The Role of Team Effectiveness in Healthcare Delivery: a Case Study of Korle-Bu Teaching Hospital in Accra, Ghana

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Abstract

The use of formal work groups and work teams in organizations has increased since the 1990s (Bayerlein and Harris (1998)). Although teamwork is one of the 9 core values at the Korle-Bu Teaching Hospital [KBTH], it has not reached its “*tipping point*” as expected. The objective of this study was to identify the role of team effectiveness on healthcare delivery at the Korle-Bu Teaching Hospital (KBTH). This study is very relevant because effective teamwork in the workplace benefits the organization by increasing individual productivity and ensures maximum utilization of manpower.

A descriptive cross-sectional study was conducted using a sample size of 210 [85.4% response rate]. Respondents were purposively selected from different categories of health workers. Interviewer administered questionnaires, interviews and observations were used to collect the data. A 5-point Likert scale was used. Factor analysis was used in the analysis.

The study showed that, the level of understanding of teamwork [98.6%] and effectiveness [80.5%] among health workers were at variance with related literature. Goal setting was the weakest link (29.7%, p-value 0.9, p>0.05) of effectiveness. The team was effective only in role definition.

The team is less effective in all the 10 dimensions assessed except role definition. There was no consensus on the teams' goal. This impliedly have implications on patient outcomes and the quality of service which is a measure of productivity of health service.

Key Words: Team Effectiveness, Health care Delivery, Korle-Bu Teaching Hospital [KBTH], Outpatient Department [OPD], Ghana Health Service [GHS]

Introduction

The advent of healthcare teams became more formalized in the 1970s and has become more prevalent in many aspect of health care delivery (Laura (2004). The use of formal work groups and work teams in organizations has increased dramatically since the 1990s (Bayerlein and Harris 1998). Teamwork in the KBTH is not however at its "tipping point" where all the stakeholders expect it to be even though teamwork is of its 9 core values.

The definition of teamwork is represented by four important themes (Guzzo, 1986; Katzenbach and Smith, 1993; CHSRF, 2005); WHO, 2007) interdependent individuals with complementary skills; commitment to shared, meaningful and purposeful goal with clear roles and responsibilities, solving problems and conflict effectively and mutual accountability. For all the authors especially Guzzo (1986), the key element that distinguishes teamwork from a work group is the element of "interdependence". In Ghana, the need for teamwork among health workers is emphasized by the Ghana Health Service customer care and the quality assurance (QA). Other stakeholders including past and present health ministers in the country (Ghana) have at different fora advocated for teamwork among health workers to improve the quality of care (<http://www.ghanahealthservice.org>).

The delivery of healthcare has become so complex that, satisfactory delivery can only be achieved through teamwork between doctors, nurses and other professionals. Patient outcomes [a measure of productivity] are therefore dependent on effective interdisciplinary teamwork; hence

the need for health workers to learn how to work in teams to deliver efficient and effective care as posited by Chantler (1999); Leggat (2007). Well-coordinated collaboration across professions has the potential to allow comprehensive, population-based, cost-effective patient care and a new emphasis on health promotion and disease prevention, which will be essential in meeting contemporary health care challenges (Baldwin, 1994; Grant *et. al*; 1995; Tresolini *et. al*; 1995).

Literature

Primary healthcare teams dates back to the earliest twentieth century in the US. In 1915, teams of physicians, health educators and social workers were created at the Massachusetts General Hospitals out-patient department (OPDs). Since the 1970s, there has been a dramatic increase in the use of formal work groups and work teams in organizations. Eighty percent of organizations with over 100 employees report that half of their employees are a member of at least one team according to Bayerlein and Harris (1998). A work team is a group of interdependent individuals who have complementary skills and are committed to a shared, meaningful purpose and specific goals (Deming, 1982; Adair, 1987; Woodcock, 1989; Morrison, 1997). They (teams) have a common, collaborative work approach, clear roles and responsibilities, and hold themselves mutually accountable for the team's performance (Katzenbach, 1993; Dyer, 1984; Guzzo & Dickinson, 1996; Guzzo, 1986). The word “*interdependency*” is a key characteristic of work teams and is what distinguishes a work team from a work group. Many organizations implement work teams as a means of increasing workplace efficiency. Effective work teams can benefit employees by increasing quality, flexibility, coordination and productivity. Organizations have also reported improvements in safety, absenteeism and employee attitudes after effective work teams were implemented according to Cantu (2007). Other benefits of teamwork in healthcare includes improved communication and partnership among health providers and patients, clarity on the role of all health providers, better response processes in addressing the determinants of health, improved coordination of healthcare services, high levels of satisfaction on the delivery of services and effective use of health resources as suggested by Clements et al. (n.d).

Methods

The study was undertaken to identify the role of team effectiveness on healthcare delivery in the Korle-Bu Teaching Hospital (KATH), Ghana. The study was a descriptive cross-sectional study. Data collection was done by the use of observation checklist, key informant interviews and structured questionnaire (attitude survey). A 5-point Likert scale was used and data was collected from July 14th-September 31st, 2012.

The study was conducted among health workers [i.e. workers who are either paid from the Controller and accountant General or the hospital's Internally Generated Fund (IGF)] of the Korle-Bu Teaching Hospital. Health workers who have been with the hospital for less than 3 months were excluded. Purposive sampling technique was used to select some heads of units/departments and simple random sampling was used to select the other respondents such as doctors, nurses, pharmacists, administrators etc. The estimated sample size was 246 with 85.4% response rate (210) at a 95% confidence interval.

Pretesting was done at the KATH on fifteen selected respondents. Qualitative data was analyzed thematically; simple statistics were used for analysis and presented in bar charts; quantitative data were analyzed using Exploratory Factor Analysis (EFA). Ethical clearance was sought from the School of Medical Sciences, Kwame Nkrumah University of Science & Technology (KNUST) and the Committee for Human Research Publications and Ethics (CHRPE) of KNUST.

Results

A total of 210 respondents were involved in the study. Analysis as presented in Figures 1a, 1b and 1c shows the demographic characteristics. Most of the workers were females nurses (60+ years) [Figure 1a]. Age profile shows that only medical doctors were 60 years and above [Figure 1b]; pharmacists were below 50 years and more than 50% of the nurses were single [Figure 1c]. Information on training in teamwork since appointment was analyzed and presented in Figure 2. Results show that about 98.6% of respondents understood teamwork to be “*a group of people*

working together to achieve expected results, objectives, purpose or goal". Only 1.4% understood teamwork to be *"members of a group working inter-dependently towards achieving a specific goal/objective"*. On the issue of whether or not they worked together as a team, about 87.6% of the health workers answered "Yes" and 12.4% thought otherwise. About 19.5% understood effectiveness to be *"the extent to which goals/objectives is achieved/ attained"* and 80.5% understood it differently; about 82.4% of respondents believed that their teams were effective; 98.6% of respondents said that there are benefits of an effective team; about 1.4% thought otherwise. Furthermore, 96.7% of respondents were willing to collaborate and work together because according to them *"no single professional body can work in isolation"*. Three factors (i.e. goal setting, decision making and participation) as depicted in Table 1 accounted for 50.956% of the total percentage variance when the eigenvalue was set at 1.0 [Figure 3]. Goal setting alone accounted for 29.722 of the total percentage variance and a p-value of 0.90 ($p > 0.05$). All the other factors (*decision making* 10.910%, $p = 0.656$; *participation* 10.323, $p = 0.288$; *listening* 9.505%, $p = 0.752$; *feedback* 8.214%, $p = 0.814$, *communication* 7.546%, $p = 0.202$; *leadership* 7.237%, $p = 0.142$; *conflict* 6.774%, $p = 0.642$; *creativity* 4.649%, $p = 0.708$) were ineffective ($p > 0.05$) except role definition ($p = 0.021$, $p < 0.05$). The scale reliability coefficient using Cronbach's alpha was 0.8214 (lying between the lower and upper limits of 0.70 and 0.90 respectively of Nunally, 1978 guidance) for the 10 items in the scale with an average interitem covariance of 0.09371.

Discussion

The study showed that only 1.4% of respondents had one of the four themes of team work (i.e. inter-dependent) which happens to be the key element in the definition of teamwork Guzzo (1986) right with 98.6% of the respondents (including all of the respondents who claim to have had one form of training or the other in teamwork) understanding of teamwork being inconsistent with Guzzo (1986); Katzenbach and Smith (1993); CHSRF (2005) and WHO (2007). With this understanding, more than two-thirds of the respondents said they believe that they (health workers) are working together as a team but this assertion is however inconsistent with findings by Wise (1994), that "getting a group of people to work together does not constitute teamwork".

Less than a third of respondents understanding of effectiveness were consistent with authors such as Sundstrom (1999), and Hick (1998). One unit head rhetorically posed: “young man, do you think we would be where we are if we were working effectively as a team?” No wonder the team is yet to reap the benefits of teamwork which includes better treatment outcomes, achieving set goals timely, patient satisfaction and provision of quality health ascribed by Morey *et. al;* (2002), Oandasan *et. al;* (2006); Manser (2009) and Lerner (2009). Again, the team demonstrated less effectiveness in all the 10 areas of assessment except role definition with goal setting alone accounting for the greatest percentage of variance (29.722%) and a p-value of 0.90 ($p > 0.05$) and invariably being the weakest as far as effectiveness is concerned. This was evident in the lack of consensus and cohesiveness about what constitutes the teams’ goal which obviously does not augur well for team effectiveness (Goni, 1999; WHO, 2007; and Lee, 2009). Interested researches are encouraged to identify the causes of these less effectiveness and the relationship that age, sex, status etc have on team effectiveness (if at all) as posited by Lichtenstein (2004).

Conclusions

Team effectiveness assessment among health workers which examined 10 of the 12 dimensions was not found in the literature review; and this comprehensive combination of dimensions has never been examined in a statistically sound research as this.

More than two-thirds of health workers’ understanding of teamwork and effectiveness was inconsistent and at variance with several authors such as Katzenbach & Smith (1993); Guzzo (1986); Sundstrom (1999) and WHO (2007).

The team is effective only in role definition and less effective in all the other 9 dimensions assessed. Goal setting contributed the greatest (29.722% variance, p-value 0.900, $p > 0.05$) to the teams less effectiveness.

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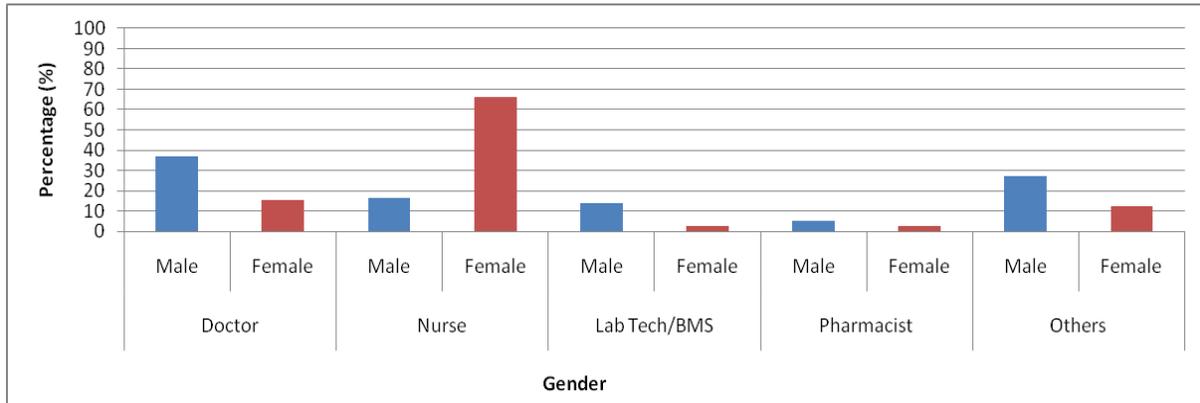


Figure 1a: Demographic Characteristics of Health Workers

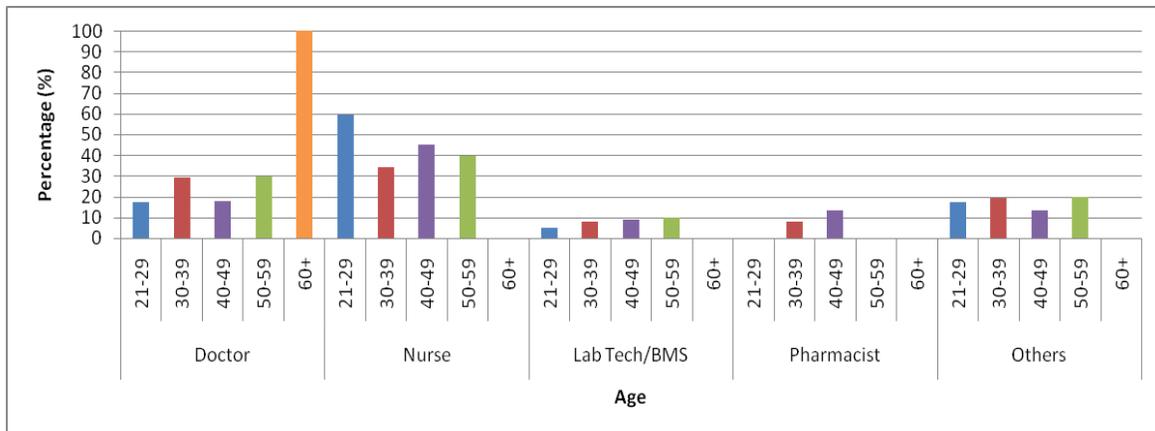


Figure 1b: Demographic Characteristics of Health Workers

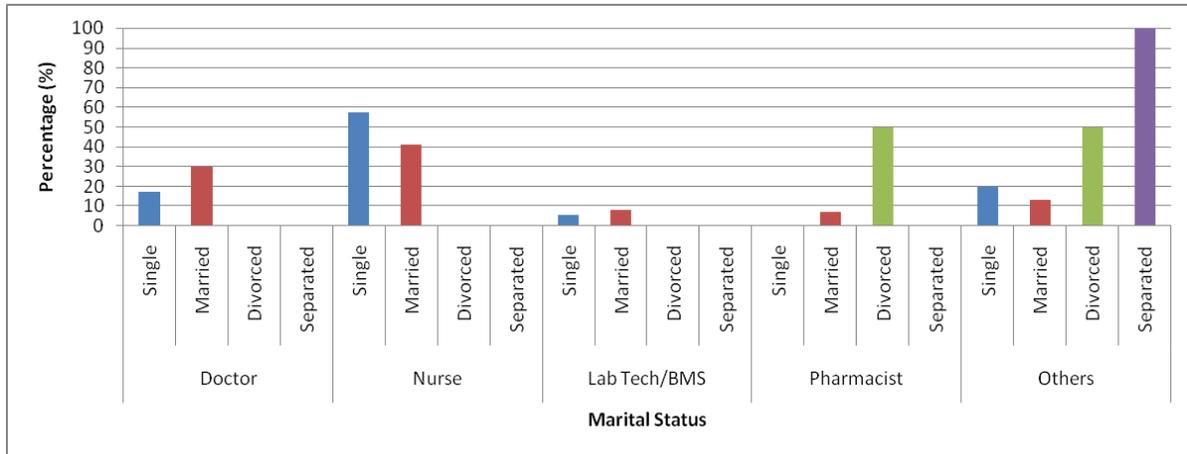


Figure 1c: Demographic Characteristics of Health Workers

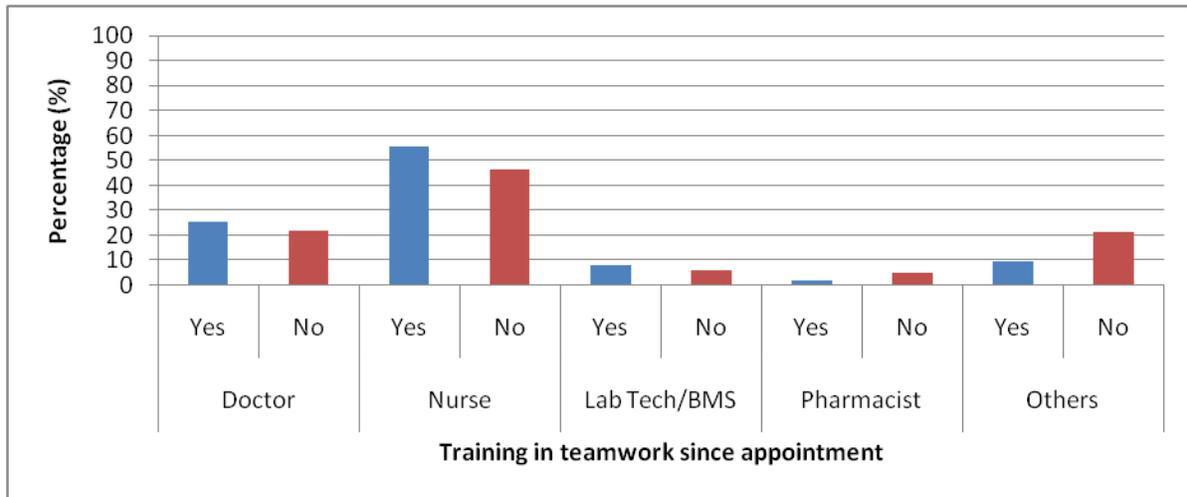


Figure 2: Training in Teamwork since appointment as a Health Worker

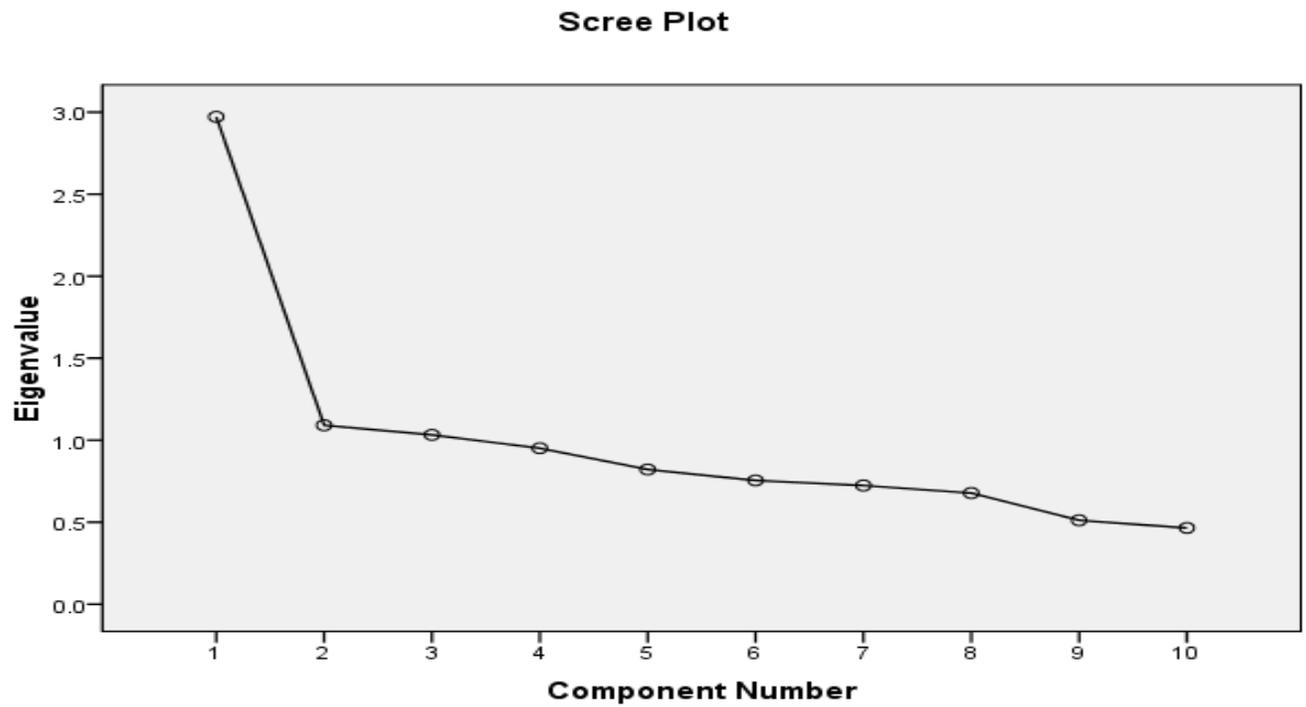


Figure 3: Scree Plot for all original Team Effectiveness Dimensions

Table 1: Exploratory Factor Analysis for Team Effectiveness Dimensions

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.972	29.722	29.722	2.972	29.722	29.722	2.198	21.983	21.983
2	1.091	10.910	40.633	1.091	10.910	40.633	1.728	17.276	39.259
3	1.032	10.323	50.956	1.032	10.323	50.956	1.170	11.698	50.956
4	0.951	9.508	60.464						
5	0.821	8.214	68.678						
6	0.755	7.546	76.225						
7	0.724	7.237	83.462						
8	0.677	6.774	90.236						
9	0.511	5.114	95.351						
10	0.465	4.649	100.000						

Extraction Method: Principal Component Analysis.

Source: Field Survey, 2011