STATISTICAL ANALYSIS ON TEAM COMPOSITION AMONGST HEALTH WORKERS IN NIGERIA: A CASE OF DELTA STATE

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Abstract

This study assessed team composition amongst health workers in Nigeria using Delta State health facilities as a case. The aim of this study was to examine the knowledge of team working for health care delivery in Delta State using Delta State Teaching Hospital (DSTH) and Federal Medical centre (FMC) Asaba, Nigeria. The statistical tool employed in this study include the Hotelling's T-Square analysis, Kruskal-Wallis analysis and descriptive statistical analysis such as bar chart and percentage distribution. Findings of the study revealed that majority of the respondents do not have knowledge of team working for healthcare for both DSTH and FCM during the Pre-Intervention. Result showed the intervention has significant impact on the knowledge of team working for health care for both DSTH and FMC. It was revealed that majority of respondents were unconcerned about attitude of team composition required for effective healthcare during the pre intervention stage for both DSTH and FMC. However, the result showed significant impact on the respondents response on attitude required for effective healthcare for both facilities during the post intervention. In addition, it was found that there exist no significant difference on knowledge of team working for healthcare in both facility. It was found that that majority of respondents have knowledge of inter-professional team composition in FMC than DSTH during the pre intervention. Also, result revealed that the intervention programme has positive effect on respondents knowledge of the inter-professional team composition. Also, it was found that there exist no significant difference on attitude of team composition required for effective healthcare delivery in both facilities.

Key Words *–Effective Healthcare, Hotelling's T-Square, Intervention,Team Composition, Team Working*

1   INTRODUCTION

Team composition at workplace provide realistic experiences that empower individuals to contribute to organizational common goals. The ability of individual(s) to build an effective and efficient team(s) has been identified as the key factor for most organizational success (Adjekukor *et al.*, 2015). Team composition involves the process of gathering the right people and getting them to work together for the benefit of a project. The main goals of team composition are to improve productivity and motivation. This is because taking employees out of the office helps groups break down political and personal barriers, eliminate distractions, and have fun. The benefits of team composition programs are so significant that many corporations have incorporated teambuilding strategies into their standard training curriculum. The benefit of team composition in any organization includes; help in improving morale and leadership skills, identifying the barriers that thwart creativity, clearly defines objectives and goals,

improves processes and procedures, improves organizational productivity, identifies a team's strengths and weaknesses, and improves the ability to solve task.

A team is a group of individuals who work together to deliver services or execute a given task for which they are mutually accountable. It should be noted that getting a group of people together does not make a *team* rather what makes the team is when group members are expected to work interdependently towards a common goal. Team members share goals and are mutually held accountable for meeting them, they are interdependent in their accomplishment, and they affect the results through their interactions with one another. Because the team is held collectively accountable, the work of integrating with one another is included among the responsibilities of each member. According to the National Health Service Management Executive (1993), the importance of team working in health care has been emphasized in numerous reports and policy documents on the National Health Service. They emphasized the importance of team working if health and social care for people are to be of the highest quality and efficiency. It should be noted that the best and most cost-effective outcomes for patients and clients are achieved when professionals work together, learn together, engage in clinical audit of outcomes together, and generate innovation to ensure progress in practice and service.

Factors such as gender issues, multiple lines of management, inter-agency working, perceived status differentials between different professional groups, and lack of organizational systems and structures for supporting and managing teams are identified as major challenges facing the creation of effective multidisciplinary teams in most organizations.

Model for team effectiveness in healthcare comprises of the following:

1. Team inputs; examples includes, size of team, the task, the diversity of members' professional backgrounds, health care environment, organizational context and team task.

2. Team processes; examples includes, information sharing, shared influence over decision making, conflict management, clarifying objectives, leadership, participation, task orientation, support for innovation, reflexivity, decision making and communication/ integration.

3. Team outputs; examples include, number of patients seen, quality of care, innovation, team member satisfaction and stress, clinical outcomes/quality of health care, cost effectiveness, team member mental health and team member turnover.

A team is a living and dynamic entity and as such, could progress from an early to a mature phase, independent of the nature of the team or the task it must perform. The Tuckman's model (2) proposed the following typical phases in team development (Tuckman and Jensen, 1977):

(a) Forming: This is the initial orientation period. The team is unsure about what it is supposed to do, members do not know each other well or are not yet familiar with the way the team leader and the other members function. This stage is complete when the members begin to see themselves as a part of the group.

(b) Storming: This is a sorting out period where members begin to find their place as team members. The team members now feel more comfortable giving their opinion and challenging the team leader's authority and recommendations. Some members may become dissatisfied and challenge not only the tasks of the team and how these will be carried out, but also the leader's role and style of leadership. This is the start of intra-group conflicts.

(c) Norming: Team members begin to use their past experiences to solve their problems and pull together as a cohesive group. This process should result in the team establishing procedures for handling conflicts, decisions, and methods to accomplish the team projects.

(d) Performing: In this phase the team has achieved harmony, defined its tasks, worked out its relationships, and has started producing results. Leadership is provided by the team members best suited for the task at hand. Members have learned how to work together, manage conflict and contribute their resources to meet the team's purposes.

(e) Dissolving or re-orientating: The team dissolves when the team has completed the project. It may be reoriented to continue on a next phase of the project.

Hence, the need to examine the knowledge team working for healthcare delivery and equally assess the attitude of team composition required for effective healthcare delivery in Delta State not to be overemphasized.

The aim of this study was to examine the knowledge of team working for health care delivery in Delta State using Delta State Teaching Hospital and Federal Medical centre Asaba, Nigeria with the following specific objectives:

1. to determine whether health workers have knowledge team working for healthcare in Delta State.

2. to determine whether health workers in Delta State have attitude of team composition required for effective health care delivery in Delta State .

2   LITERATURE REVIEW

Positive effects of multidisciplinary team working in health care has been discussed by very few studies in Nigeria. However, one should not disregard the fact that there are many difficulties inherent in comparing evaluation studies, which include teams having different objectives and organization patterns, studies variously controlling for other concurrent changes in local services and the pre-existing variations in services and cultures (Jackson *et al.*, 1993). In terms of the delivery of care, teams have been reported to reduce hospitalization time and costs, improve service provision, enhance patient satisfaction, staff motivation and team innovation. Speaking on reduced hospitalization and cost of healthcare, Sommers *et al.* (2000) compared primary health care teams with physician care across 18 private practices, and concluded that primary health care teams lowered hospitalization rates and reduced physician visits while maintaining function for elderly patients with chronic illness and functional deficits. They found that reduction in hospitalization has significant effect on cost savings, which accounted for the costs of setting up the team and making regular home visits.

Jones (1992) reported that families who received primary health team care had fewer hospitalizations, fewer operations, less physician visits for illness and more physician visits for health supervision than control families. A similar pattern emerged for terminally ill patients, where their increased utilization of home care services more than offset savings in hospital costs, such that there were average savings of 18% in hospital costs (Hughes *et al.*, 1992). Primary care teams appear to produce better detection, treatment, follow-up and outcome in hypertension (Adorian *et al.*, 1990). Specifically, nurses in England reported that working together in primary health care teams reduced duplication, streamlined patient care and enabled specialist skills to be used more cost-effectively (Ross *et al.*, 2000). Hughes *et al.* (1992) compared the provision of hospital-based team home care and customary care for 171 terminally ill patients in a large U.S. Department of Veterans Affairs hospital. They noted increased access to home care services and improved patient and care givers satisfaction with hospital-based team home care. Both patients and caregivers of the team expressed significantly higher levels of satisfaction with continuous and comprehensive care at one month, and they continued to express higher levels of satisfaction at six months. The team program maintained patients at home for significantly more days than the control group, who were kept in hospital in general wards for longer. Patients of the team received almost twice as many home visits as the control group and visited the clinic significantly fewer times. Increased satisfaction by patients who had access to a primary health care team was reported to include a higher mean number of social activities, fewer symptoms and slightly improved overall health. These differences were noted in comparison to patients who only had access to a physician (Sommers *et. al.*, 2000).

Team effectiveness depends intemperately on the ability of individual members to successfully manage interpersonal relations with one another (Perkins and Abramis, 1990). This individual capacity is referred to as "interpersonal competence," which refers to the ability to maintain healthy working relationships and react to others with respect for ideas, emotions, and different viewpoints. Babcock (2004) noted that because of the potential benefits that can be realized from knowledge sharing, many organizations have invested considerable time and money into knowledge management (KM) initiatives including the development of knowledge management systems (KMS) which use state-of-the-art technology to facilitate the collection, storage, and distribution of knowledge. Despite these investments, it has been estimated that at least $31.5 billion are lost per year by Fortune 500 companies as a result of the failure to share knowledge.

West and Anderson (1996) carried out a longitudinal study of the functioning of top management teams in 27 hospitals and examined relationships between team and organizational factors and team innovation. Their results suggested that team processes best predicted the overall level of team innovation, while the proportion of innovative team members predicted the rated radical innovations introduced. Specifically, West and Wallace (1991) found that team collaboration, commitment to the team and tolerance of diversity were positively related to team innovativeness. By what means are these various benefits of team working in health care realized? Partly at least through their composition and through effective team processes such as communication, decision-making and problem-solving. We therefore briefly review research in these areas before turning to consider the influence of the organizations within which teams function. Wu *et al*. (2007) used social exchange theory to examine how trust and justice, two key components in interpersonal relationships, relate to knowledge sharing. They concluded that examining trust and justice is important because knowledge sharing involves providing knowledge to another person. Lipman (2007) maintained that team building activities create an open climate for communication, promote trust, build rapport, stimulate creativity, promote learning, provide opportunity for hidden problems to surface, and of course, strengthen teamwork and motivation. Schepers and Van den Berg (2007) explained that justice-knowledge sharing relationship has received little research attention although the role of justice in affecting the quality of social exchange relationships between employers and their employees may be well accomplished. They found procedural justice to be positively related to perception of knowledge sharing among employees. Lin (2007) using part-time business administration students in Taiwan found that both distributive and procedural justice had positive indirect effects on tacit knowledge sharing via organizational commitment while distributive justice also influenced knowledge sharing through trust among co-workers.

In their contribution, Bock *et al.* (2005) stressed that it appears that job and organizational attitudes have a significant influence on knowledge sharing. Attitudes toward knowledge sharing has been found to not only have a direct effect on knowledge sharing but also have an indirect effect on self reported sharing behaviour through positively influencing intentions to share. Baker *et al*. (2005) observed that outside healthcare, teams working together in high-risk and high-intensity work environments make fewer mistakes than do individuals. They added that this includes empirical evidence from commercial aviations, the military, fire-fighting and rapid-response police activities. They found a strong relationship between qualities such as flexibility, adaptability resistance to stress, cohesion, retention and morale with effective team performance. Oandasan *et al.*, (2006), noted that teamwork, when enhanced by inter-professional collaboration, could have a range of benefits. Although the link is far from definitive, it appears that teamwork and team composition could have positive effects, particularly in quality and safety. Also, some recent attempts has endeavoured to capture and evaluate individual training programs which could enhance teamwork, with some evidence of effectiveness. They added that studies on patient safety found that team training and decision aids, such as checklists and communication protocols can be used to improve team processes. In their contribution on knowledge and attitudes towards the healthcare team, Gallangher *et al.* (2010) reported that there exists a significant difference in knowledge areas with increase in awareness of community agencies that provide healthcare services, increase in awareness of the skills and strengths of other healthcare team members and increase in the extent of experience working with other healthcare professionals.

Kvarnstrom (2008) using qualitative analysis, observed that majority of the primary care organizations in England and Wales identified the need to develop a strategic approach of inter-professional teamwork, to meet educational needs of primary care professionals and for fruitful alignment of objectives expected to be rewarding for participants. Mickan and Rodger (2000), noted that the ability to trust among team members originates from self-knowledge and competence. Trust must be slowly built up across team members who have different competencies, assumptions and priorities, through developing confidence in each other's competence and reliability. Trusting individuals are willing to share their knowledge and skills without fear of being diminished or exploited. They added that self-knowledge and an ability to trust others are the building blocks of commitment. Commitment to a unified set of team goals and values provides direction and motivation for individual members. Healthcare teams generate commitment through a shared goal of comprehensive patient care and a common belief that the team is the best way to deliver this coordinated care. Committed individuals are more willing to invest personally in the team, contribute to the decision making and respect the balance of interdependence and collaboration.

Ogbimi and Adebamowo (2006) regretted that the problem of poor inter-professional collaboration is seriously threatening the expected outcomes of team building in the healthcare sector as corroborated by a survey of doctors and nurses working in four university teaching hospitals in Southern Nigeria found that nurse-doctor working relationships were significantly statistically affected by poor social interaction, staff shortages, activist unionism, disregard for ones profession and hospital management and government policies. They added that team building training is the set of tools and methods that form an instructional strategy, which provides team members with the opportunities to practice skills and receive feedback in a rich learning environment. The strategy is dependent on many variables, such as the knowledge, skills and attitudes (KSAs) that need to be trained and the resources available. Regardless of the strategy, team building focuses on the development of a robust instructional method for influencing team processes (such as communication, collaboration and coordination) and results.

Gender is an important influence on communication within teams. Not only are men consistently more assertive in public situations and confrontations (Kimble, Marsh and Kiska, 1984; Mathison and Tucker, 1982), but also communication expectations differ for men and women. Sex-role stereotypes prescribe passive, submissive and expressive communication for women while men are expected to be active, controlling and less expressive communicators (LaFrance and Mayo, 1978). In support, Alexander, Lichtenstein and D'Aunno (1996) reported that the greater the gender diversity, the more positive were team members' assessment of how cohesively and harmoniously teams operated. Their research suggested that mixed gender teams included different orientations to work, namely a female focus on workplace processes and relationships and a male focus on tasks and outcomes. It is important that teams have the appropriate mix of clearly defined team roles. Jansson *et al*., (1992) assessed the records of general practitioners and district care givers over a six-year period across 2 districts in Sweden following the introduction of care teams into one region. They found that through the independent roles of nurses and doctors were retained in the primary health care teams, all team members interacted with the population in various situations, including home visits and complemented each other across different competencies. George (1990) suggests that if members of a team experience similar kinds of affective states at work (either negative or positive), then affect is meaningful not only in terms of their individual experiences, but also at a team level. A number of studies have demonstrated a significant relationship between team affective tone and behaviour such as absenteeism (George, 1995). George proposes that teams that are interested, strong, excited, enthusiastic, proud, alert, inspired, determined, attentive and active, enable cognitive flexibility, creativity and effectiveness (George, 1996). However, she argues that team affective tone may not exist for all teams, so it cannot be assumed a priori that it is a relevant construct for every team. George (1996) sees team affective tone and team mental models as having a reciprocal influence. So in a team with a negative affective tone, members would have different cognitive processes from those in a team with a positive affective tone, which then may influence team effectiveness.

West and Field (1995) interviewed 96 members of primary health care teams and described factors that impacted upon team working and communication in healthcare. Structured time for decision-making, team cohesiveness and team-building all influenced communication within teams. They highlighted the failure of healthcare teams to set aside time for regular meetings to define objectives, clarify roles, apportion tasks, encourage participation and handle change.   Other reasons for poor communication included differences in status, power, educational background, assertiveness of members of the team, and the assumption that the doctors would be the leaders (West and Pillinger, 1995; West and Slater, 1996). Cant and Killoran (1993) reached similar conclusions, based on their research study with 928 practice nurses, 682 health visitors and 679 district nurses. They argued that joint professional training and the instigation of regular team meetings were necessary to promote good communication.

Yeatts and Seward (2000) reported similar findings when they compared 3 self- managed work teams in a medium size U.S. rural nursing home. They concluded that enhanced communication between team members positively affected the service to residents. Observations of a high performing team's meetings showed that team members had a high level of respect for each other, listened to each other, and were not afraid to disagree when they held different views. Team members sought and valued approval from each other, and they assisted each other to complete tasks. Freeman *et al*. (2000) also developed a grounded theory about collaborative practice at the levels of the organization, group and individual. They conducted case studies of 6 teams working in a variety of specialist healthcare services (diabetes, medical ward, primary healthcare, neuro-rehabilitation unit, child development assessment, community mental health) and concluded that the meanings different professionals ascribed to teamwork shaped how they communicated and what they communicated about. When there was a lack of congruence about aspects of teamwork, communication could potentially be compromised. Individual perceptions determined the level of role understanding considered necessary, and the value assigned to others' contributions.

Differences in the understanding and valuing of team roles and levels of team learning exacerbated underlying resentments, undermined professional esteem and created conflict.

Hackman (1990) argued that training and technical assistance is required for teams to function successfully. Knowledge and training about team functioning is needed to supplement team members' own technical and medical skills and knowledge. In nursing care teams, Dreachslin, Hunt and Sprainer (2000) concluded that leadership mitigated the influence of race in self-perceived communication effectiveness. Participants' comments supported the theme that team leaders who encouraged discussion about differences enhanced perceived team effectiveness. They suggested that leaders provided a unifying force through validating the alternative realities and appreciating the different perspectives of team members, thus moderating the potentially negative effects of racial diversity on team processes. In their study, Aronu *et al.* (2013) measured the knowledge and attitude of team building activities amongst health workers at Anambra state and Enugu state in Nigeria using the Mantel test statistic. The findings of their study found a weak negative resemblance on the knowledge of team building activities among health workers at the two states with an association of -46.71% and a P-value of 0.87 which falls on the acceptance region of the hypothesis assuming a significance level of 5% ($\alpha = 0.05$). They also observed the existence of a strong positive resemblance on the attitude of team building activities among health workers at the two states with an association of 74.65 and a P-value of 0.00 which falls on the rejection region of the hypothesis assuming a significance level of 5% ($\alpha = 0.05$). They concluded that there exist a significant resemblance on the attitude of team building activities in the health sector of the two states.

Speaking on factors that affect the practice of team work in surgical teams, Leach *et al.*, (2011) observed that the factors affecting the practice of teamwork for most surgical teams were communication (14.29%), interpersonal relationships (14.29%), leadership (4.76%), managing the team (47.62%), teamwork /good cohesion (19.05%), ability to perform (5.88%), accountability (23.53%), consistency (5.88%), managing stress (35.29%), professionalism(11.76%), management style (5.88%), temperament (11.76%), creating the environment (77.78%), and patient-focused (22.22%). On their part, Delva *et al*, (2008) employed qualitative content analysis in their study and noted that the factors that affect team effectiveness are combining educational responsibilities (for resident health professionals) and clinical obligations to patient care; purpose, motivation and team goals; team membership, understanding of members roles; adjustment and problem solving as a team; team process; communication; recognition; support from fellow members; overcoming barriers to effective teamwork (which include absenteeism, disorganized teams, too little time for team building and unwillingness to accommodate a fellow member); organizational factors (governance); team meetings.

3   RESEARCH METHODOLOGY

3.1 STATISTICAL TOOLS USED IN THIS STUDY

The statistical tool employed in this study include the Hotelling's T-Square analysis, Kruskal-Wallis analysis and descriptive statistical analysis such as bar chart and percentage distribution.

3.2 SOURCE OF DATA COLLECTION

The source of data for this study was generated using questionnaire administered randomly to a sample of 200 workers of Delta State Teaching Hospital (DSTH) Oghara as study group and also 200 workers of Federal Medical Centre (FMC), Asaba both in Delta State of Nigeria. The sample was generated from a sampling frame obtained using systematic sampling technique from a population of 19 departments. The following departments were obtained as the sampling frame; Accident & Emergency, Anaesthesia/ICU, Community Medicine, Medicine, Nursing & Midwifery, Obstetrics & Gynaecology, Surgery, Paediatrics, Pharmacy and Administration.

The questionnaire were administered in two stages: stage one referred to as the pre intervention stage and the stage two referred as the post intervention stage. The first stage involves identifying the sample and assessing the knowledge of the respondents on team working and attitude required for effective team working. Then, a two-day training session was conducted in both facilities on team composition which involved not only the respondents but interested individuals in the facilities.

After the training , the same questionnaire was administered to the same sample of respondents and this is what we referred to as the post intervention stage.

4   DATA ANALYSIS

4.1 KRUSKAL-WALLIS TEST ON KNOWLEDGE OF TEAM WORKING FOR HEALTHCARE IN DSTH

Ho: There is no significant difference on knowledge of Team working for Health care in DSTH for Pre-Intervention

Table 1: Rank Analysis on Knowledge of Team working for Healthcare in DSTH for Pre Intervention

	Option	N	Mean Rank
Response	True	4	4.50
	False	4	6.50
	Not Applicable	4	8.50
	Total	12	

Table 2: Test Statistics for assessing Knowledge of Team working for Healthcare in DSTH for Pre-Intervention

	Response
Chi-Square	2.496
df	2
Asymp. Sig.	.287

The result of the Kruskal -Wallis test showed that there exist no significant difference on the knowledge of team working for healthcare at DSTH for Pre-Intervention since the test found a Chi-square value of 2.496 and a p-value of 0.287 which falls on the acceptance region of the hypothesis assuming a 95% confidence level (see Table 2). The result showed in Table 1 that option *Not Applicable* recorded the highest mean rank with a mean rank of 8.50, this result implies that majority of the respondents do not have knowledge of team working for healthcare delivery in DSTH. Hence, respondents does not have knowledge of team working for Healthcare in DSTH.

Ho: There is no significant difference on knowledge of Team working for Health care in DSTH for Post-Intervention

Table 3: Rank Analysis on Knowledge of Team working for Healthcare in DSTH for Post -Intervention

	Option	N	Mean Rank
Response	True	4	10.50
	False	4	6.50
	Not Applicable	4	2.50
	Total	12	

Table 4: Test Statistics for assessing Knowledge of Team working for Healthcare in DSTH for Post-Intervention

	Response
Chi-Square	9.881
df	2
Asymp. Sig.	.007

The result of the Kruskal -Wallis test showed that there exist significant difference on the knowledge of team working for healthcare at DSTH for Post-Intervention since the test found a Chi-square value of 9.881 and a p-value of 0.007 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 4). The result showed in Table 3 that option *Agree* recorded the highest mean rank with a mean rank of 10.50, this result implies that majority of the respondents have knowledge of team working for healthcare delivery in DSTH for Post-Intervention. Hence, respondents have knowledge of team working for Healthcare in DSTH for Post-Intervention.

4.2 KRUSKAL-WALLIS TEST ON ATTITUDE COMPETENCIES REQUIRED FOR EFFECTIVE HEALTHCARE IN DSTH

Ho: There exist no significant difference on attitude competencies required for effective Health care in DSTH for Pre-Intervention

Table 5: Rank Analysis on attitude competencies required for effective Healthcare in DSTH for Pre-Intervention

	Option	**N**	**Mean Rank**
Response	Agree	7	4.00
	Disagree	7	11.00
	Indifference	7	18.00
	Total	21	

Table 6: Test Statistics for assessing attitude competencies required for effective Healthcare in DSTH for Pre-Intervention

	Response
Chi-Square	18.516
df	2
Asymp. Sig.	.000

The result of the kruskal -Wallis test showed that there exist significant difference on attitude competencies required for effective Healthcare in DSTH for Pre-Intervention since the test found a Chi-square value of 18.516 and a p-value of 0.00 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 6). The result showed in Table 5 that option *Indifference* recorded the highest mean rank with a mean rank of 18.00,

this result implies that majority of the respondents were unconcerned about attitude competencies required for effective Healthcare in DSTH for Pre-Intervention.

Ho: There exist no significant difference on attitude competencies required for effective Health care in DSTH for Post-Intervention

Table 7: Rank Analysis on attitude competencies required for effective Healthcare in DSTH for Post-Intervention

	Option	N	Mean Rank
Response	Agree	7	18.00
	Disagree	7	11.00
	Indifference	7	4.00
	Total	21	

Table 8: Test Statistics for assessing attitude competencies required for effective Healthcare in DSTH for Post-Intervention

	Response
Chi-Square	17.841
df	2
Asymp. Sig.	.000

The result of the Kruskal -Wallis test showed that there exist significant difference on attitude competencies required for effective Healthcare in DSTH for Post-Intervention since the test found a Chi-square value of 17.841 and a p-value of 0.00 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 8). The result showed in Table 7 that option *Agree* recorded the highest mean rank with a mean rank of 18.00, this result implies that majority of the respondents have attitude competencies required for effective Healthcare in DSTH for Post-Intervention.

4.3 KRUSKAL-WALLIS TEST ON KNOWLEDGE OF TEAM WORKING FOR HEALTHCARE IN FMC

Ho: There is no significant difference on knowledge of Team working for Health care in FMC for Pre-Intervention

Table 9: Rank Analysis on Knowledge of Team working for Healthcare in FMC for Pre Intervention

	Option	N	Mean Rank
Response	True	4	2.50
	False	4	10.50
	Not Applicable	4	6.50
	Total	12	

Table 10: Test Statistics for assessing Knowledge of Team working for Healthcare in FMC for Pre-Intervention

	Response
Chi-Square	10.203
df	2
Asymp. Sig.	.006

The result of the Kruskal -Wallis test showed that there exist significant difference on the knowledge of team working for healthcare at FMC for Pre-Intervention since the test found a Chi-square value of 10.203 and a p-value of 0.006 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 10). The result showed in Table 9 that option *False* recorded the highest mean rank with a mean rank of 10.50, this result implies that majority of the respondents do not have knowledge of team working for healthcare delivery in FMC. Hence, respondents do not have knowledge of team working for Healthcare in FMC.

Ho: There is no significant difference on knowledge of Team working for Health care in FMC for Post-Intervention

Table 11: Rank Analysis on Knowledge of Team working for Healthcare in FMC for Post- Intervention

	Option	N	Mean Rank
Response	True	4	10.50
	False	4	6.50
	Not Applicable	4	2.50
	Total	12	

Table 12: Test Statistics for assessing Knowledge of Team working for Healthcare in FMC for Post-Intervention

	Response
Chi-Square	9.846
df	2
Asymp. Sig.	.007

The result of the Kruskal -Wallis test showed that there exist significant difference on the knowledge of team working for healthcare at FMC for Post-Intervention since the test found a Chi-square value of 9.846 and a p-value of 0.007 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 12). The result showed in Table 11 that option *Agree* recorded the highest mean rank with a mean rank of 10.50, this result implies that majority of the respondents have knowledge of team working for healthcare delivery in FMC for Post-Intervention. Hence, respondents have knowledge of team working for Healthcare in FMC after the intervention program.

4.4 KRUSKAL-WALLIS TEST ON ATTITUDE COMPETENCIES REQUIRED FOR EFFECTIVE HEALTHCARE IN FMC

Ho: There exist no significant difference on attitude competencies required for effective Health care in FMC for Pre-Intervention

Table 13: Rank Analysis on attitude competencies required for effective Healthcare in FMC for Pre-Intervention

	Option	N	Mean Rank
Response	Agree	7	8.14
	Disagree	7	17.86
	Indifference	7	7.00
	Total	21	

Table 14: Test Statistics for assessing attitude competencies required for effective Healthcare in FMC for Pre-Intervention

	Response
Chi-Square	13.449
df	2
Asymp. Sig.	.001

The result of the Kruskal -Wallis test showed that there exist significant difference on attitude competencies required for effective Healthcare in FMC for Pre-Intervention since the test found a Chi-square value of 13.449 and a p-value of 0.001 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 14). The result showed in Table 13 that option *Disagree* recorded the highest mean rank with a mean rank of 17.86, this result implies that majority of the respondents do not have attitude competencies required for effective Healthcare in FMC for Pre-Intervention.

Ho: There exist no significant difference on attitude competencies required for effective Health care in FMC for Post-Intervention

Table 15: Rank Analysis on attitude competencies required for effective Healthcare in FMC for Pre-Intervention

	Option	N	Mean Rank
Response	Agree	7	18.00
	Disagree	7	11.00
	Indifference	7	4.00
	Total	21	

Table 16: Test Statistics for assessing attitude competencies required for effective Healthcare in FMC for Pre-Intervention
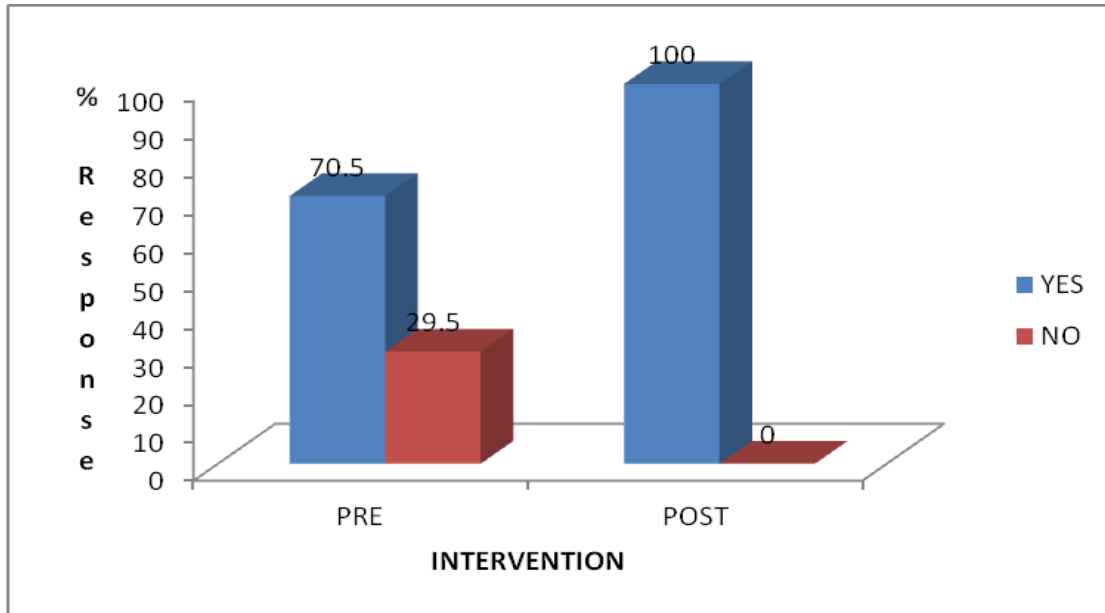
	Response
Chi-Square	17.841
df	2
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: Option	

The result of the Kruskal -Wallis test showed that there exist significant difference on attitude competencies required for effective Healthcare in FMC for Post-Intervention since the test found a Chi-square value of 17.841 and a p-value of 0.00 which falls on the rejection region of the hypothesis assuming a 95% confidence level (see Table 16). The result showed in Table 15 that option A*gree* recorded the highest mean rank with a mean rank of 18.00, this result implies that majority of the respondents have attitude competencies required for effective Healthcare in FMC for Post-Intervention.
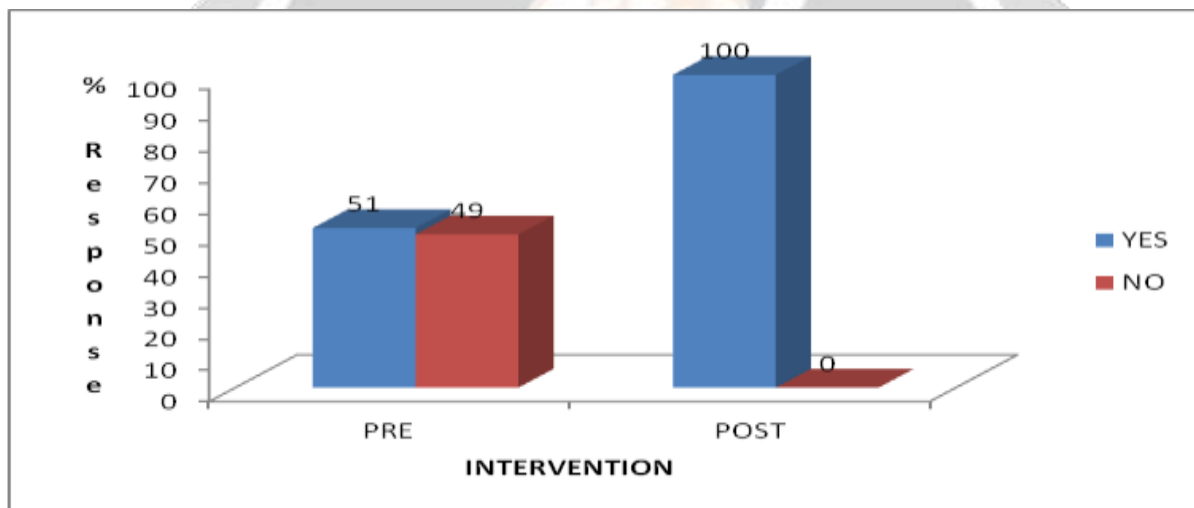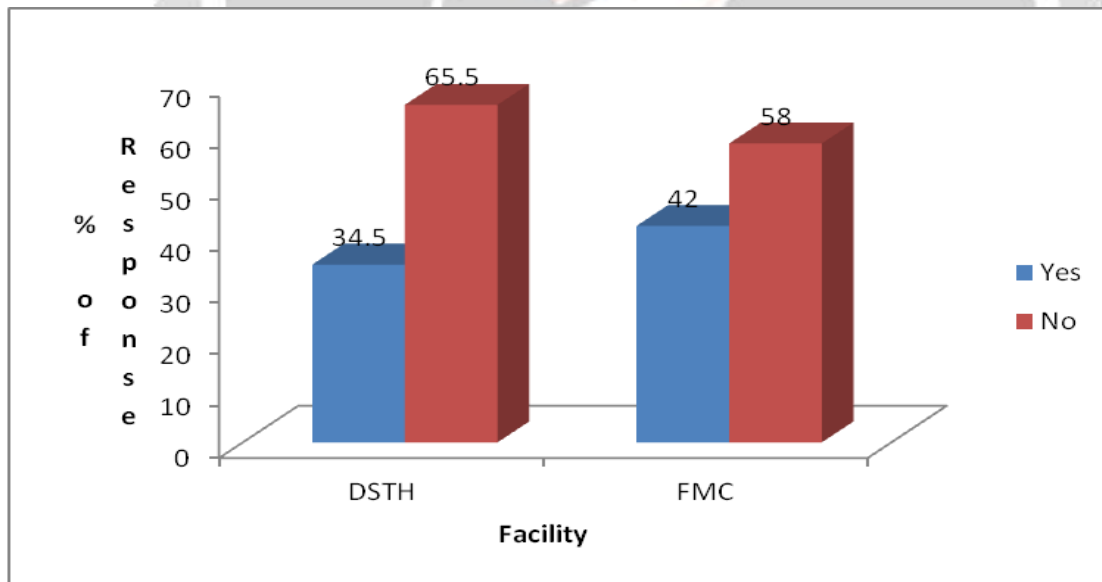

Figure 1: Distribution of response on Knowledge of Team Working for Healthcare for DSTH

The result obtained in Figure 1 showed that there is an increase on the number of respondents who claim to have knowledge of team working for health care for DSTH in the post intervention stage.
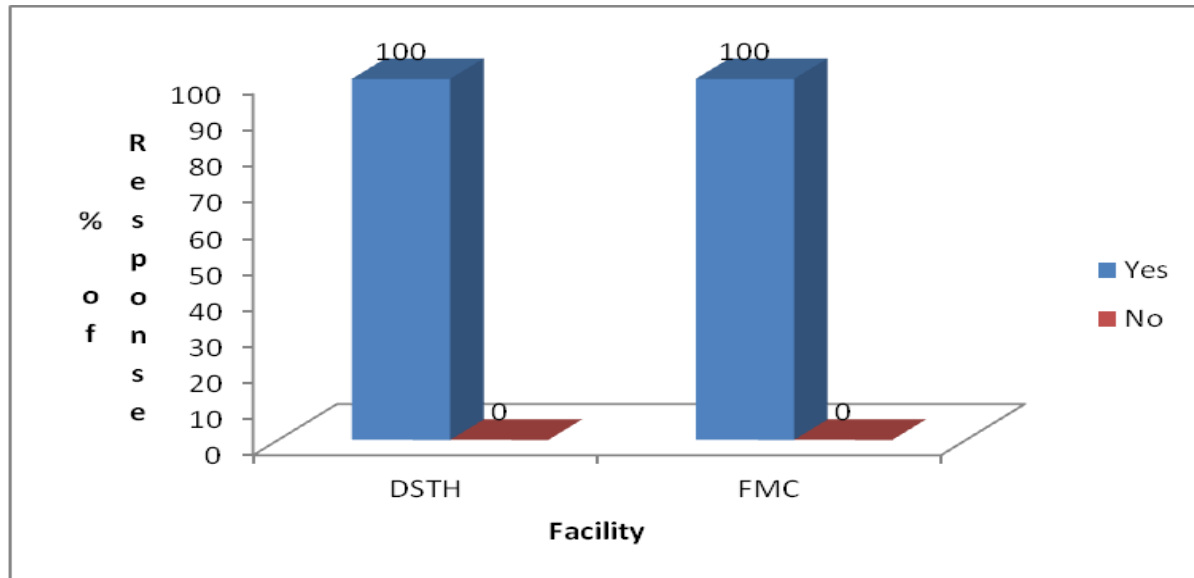
Figure 2: Distribution of response on Knowledge of Team Working for Healthcare for FMC

The result obtained in Figure 2 showed that there is an increase in the number of respondents who claim to have knowledge of team working for health care for FMC in the post intervention stage.

Figure 3: **Distribution of response on Knowledge of Inter-professional Team Composition for Healthcare during Pre- Intervention**

The result obtained in Figure 3 showed that majority of respondents have knowledge of inter-professional team composition in FMC than DSTH since FMC recorded about 42.0% while DSTH recorded 34.5% of respondents who claim to have knowledge of inter-professional team composition during pre-intervention.

Figure 4: Distribution of response on Knowledge of Inter-professional Team Composition for Healthcare during Post- Intervention

The result obtained in Figure 4 showed that all respondents have knowledge of inter-professional team composition after intervention. This result implies that the intervention has positive effect on respondents knowledge of the inter-professional team composition

5   CONCLUSION

This study assessed team composition activities amongst health workers in Nigeria using Delta State health facilities as a case. Findings of the study revealed that majority of the respondents do not have knowledge of team working for healthcare for both DSTH and FCM during the Pre-Intervention. Result showed the intervention has significant impact on the knowledge of team working for health care for both DSTH and FMC.

It was revealed that majority of respondents were unconcerned about attitude of team composition required for effective healthcare during the pre intervention stage for both DSTH and FMC. However, the result showed significant impact on the respondents response on attitude required for effective healthcare for both facilities during the post intervention. It was found that that majority of respondents have knowledge of inter-professional team composition in FMC than DSTH during the pre intervention. Also, result revealed that the intervention programme has positive effect on respondents knowledge of the inter-professional team composition. Also, it was found that there exist no significant difference on attitude of team composition required for effective healthcare delivery in both facilities. Hence, there is urgent call for intervention programs on knowledge and attitude of team composition required for effective healthcare delivery in Delta State.

We advocate that the Federal Ministry of Health in Delta State should focus on institutionalization of inter-professional team composition trainings at all levels of healthcare system in the State. This we believe would most likely reduce the incessant inter-professional (inter-departmental) and intra-professional (intra-departmental) conflicts that is believed to have bedeviled the health system in Nigeria.

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