Review

From service to academics: Analysis of a change process in the Department of Anaesthesiology
University of Port Harcourt Teaching Hospital (UPTH), Nigeria

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This paper examines a change process in the Department of Anaesthesiology of the University of Port Harcourt Teaching Hospital, Nigeria, as it transforms from a service-to an academic-oriented organization. Analysis was performed using the Herold and Fedor's comprehensive change framework. It covers key highlights of what needs changing, how to proceed, and implementation of change in relation to who will lead, who is expected to follow, internal and external contexts with a possibility of altering elements of the situation and/or reconsideration of the change process. It provides an overview of the key players in the department of anaesthesiology namely the change leader, the relationship with various stakeholders and followers. It further looks at the implementation of some changes in the department. The findings confirm that change is dynamic and organizations can transform in response to the environment.

Keywords: Change management, change leader, Department of Anaesthesia, Teaching Hospital, Nigeria.

INTRODUCTION

Anaesthesia in most tertiary hospitals in West Africa started as a service for surgery and obstetrics thus upgrading to an academic department has to be strategic i.e. carefully planned and deliberate (Lunenburg, 2011; Goodstein 2011). Cawseyet al. (2012) refer to organizational change as a planned alteration of organizational components to improve effectiveness. Interest in academic anaesthesia in the University of Port Harcourt developed from a need to include some basic knowledge of anaesthesiology and resuscitation into medical students’ curriculum, as well as to develop lecturers and researchers who will provide specialist training for doctors in the teaching hospital. This training would lead to the Diploma in Anaesthesia (DA) following an 18 months program which will supply middle-level manpower; and/or a maximum of 6 years program resulting in the Fellowship in Anaesthesia awarded by the West African College of Surgeons (FWACS) or the Fellowship of the Medical College of Anaesthesia (FMCA) awarded by the National Postgraduate Medical College of Nigeria (NPMCN) (Ajayi and Adebamowo, 1999; Bodeet al., 2008). The West African College of Surgeons (WACS) became a college in 1969 but prior to that year, it existed as the Association of Surgeons of West African which was founded in 1960 (Ajayi and Adebamowo, 1999). Globally, anaesthesia has become so highly specialized having been influenced by newer drugs with less hazardous profiles, techniques that are easy and safe to use, safeguarding technologies for anaesthetic machines and accurate monitoring techniques (Haller G, 2013; Botney R, 2008; Myles et al., 2004; Tinker et al., 1989). While academic departments of anaesthesia in the western world have experienced remarkable growth (Nunn, 1999), and offer "high tech, high precision" services, as well as pride themselves on running postgraduate training programmes and research as evidenced by the quality of journals, most specialist anaesthesiologists in Nigeria and West Africa are still
concerned with teaching and provision of simple but safe general and regional anaesthesia services (Bode et al., 2008). To expand their horizon, department of anaesthesiology of the University of Port Harcourt Teaching Hospital (UPTH) set out to design a process that will meet its manpower needs and also contribute to creating some unique academic skills that can become the standard and framework for training and research. Not trying to reinvent the wheel but borrowing from established academic departments all over the world, we evaluated our peculiar situation and created what was appropriate for UPTH. We realized that while teaching and training is both necessary, academic anaesthesia must develop and should be research driven.

CHANGE SITUATION

The UPTH occupied the General Hospital premises from September 1, 1983 till September, 2006 when it relocated to its permanent site (Onajin-Obembe and Otokwala, 2008). The department of anaesthesiology provides services to almost all the departments in the hospital. These include all surgical specialties, obstetrics and gynaecology, accident and emergency and the intensive care unit. It was a service department until 2001 when it received partial accreditation for the residency training programme. This seemed to be the turning point for the department. During the accreditation of the department by the WACS and the NPMCN in 2001, it had only two consultant anaesthetists/lecturer grade 1, and thereafter, a third and fourth consultant anaesthetists/lecturers grade 1 were employed in 2002 and 2005 respectively. Consequently, from having no anaesthesia faculty to a faculty staff of 4, and one of them now a senior lecturer, it became easier to carry out research and publish papers, attend conferences and develop academically. The quality of lectures given to the medical students improved and the post graduate presentations became more creative, scientifically interesting and were better supervised by the 4 member faculty. Prior to 2006, the department had an “out of the operating room” office complex which housed two consultant offices, one seminar room, and a hospital administrative staff office; in addition to these, there was a consultant office and reading room in the theatre. To support services, the teaching hospital employed a retired hospital consultant anaesthesiologist on contract. All consultants and resident doctors (specialists-in-training) rendered anaesthesia services by following a roster which covered all required services, as well as emergency calls. The hospital had only 5 operating theatres and a “low tech” high dependency (step-down progressive and intermediate care) unit that was under the direction of nurses. At that time, the passion and interest of each consultant was becoming evident by the papers they published and the conferences and workshops they attended or participated in. Unfortunately, consultants (lecturers) continued to rotate through the operating theatres with a focus on rendering services along with their resident anaesthetists (specialists-in-trainees). This work pattern promoted the consultants teaching skills over and above their research skills. After the relocation of the teaching hospital to its permanent site in 2006, the capacity for surgical operations increased.

The department had to provide services for 10 theatres located in 3 different complexes. These include 2 theatres in the Obstetric unit, 2 theatres near the ophthalmology ward shared by ophthalmology, Ear, Nose and Throat (ENT) and maxillofacial departments while the main complex had 6 operating theatres shared between the other units: orthopedic surgery, paediatric surgery, cardiothoracic and neurosurgery, general and urological surgeries and emergencies. An 8-bedded well equipped intensive care unit (ICU) was also commenced and the high dependency unit (HDU) nursing staff were now required to step up their care.

The anaesthesia faculty members (consultants) were required to move around from one complex to another. There was no specific responsibility or division of duty, thus all the consultants supervised anaesthesia for all surgical operations irrespective of personal interests or research focus. The faculty worked anywhere their attention and services were required just like the specialist in-training. To compound this, no office space was allocated to the department of anaesthesia during the relocation so the departmental staff became demotivated. The department had lost all that it once had: seminar room, reading room, administrative offices and consultants’ offices. The department was omitted in the relocation plan because of the assumption that the ten operating rooms and new pre-anaesthetic rooms in the theatre complexes were more than enough for the department to function.

Anaesthesiologists, as erroneously believed, are supposed to resume and work in the operating theatres, render the required services and go home. The relocation committee of the teaching hospital overlooked the administrative and academic functions of the anaesthesiology lecturers outside the operating room. Actually, the teaching hospital is an affiliate of the university and therefore requires infrastructure for research and academic pursuits. The residents became demoralized within the first two weeks of relocation because they had nowhere to study, meet or revise for that year’s October/November fellowship examinations. To them, the hospital seemed to have taken one step forward and five steps backwards.
The hospital relocation period from the end of 2006 and the beginning of 2007 was a very distressing period for the Department of Anaesthesia. There was a sense of urgency that required a quick response to the situation. Establishing a sense of urgency is the first of eight steps to transforming your organization (Kotter, 2007). The administrative staff of the department did not have an office to report to while the office furniture and computers were still in storage. The full commissioning of the operating theatres did not occur until four months after moving to the new hospital site. This is because some reconstruction work and inventory were being carried out in the main theatre complex thus requiring improvisation by the surgery and anaesthesia teams in order to provide services. It was a very chaotic situation because routine work was impossible and a fifth newly employed lecturer/consultant resumed in the midst of this. To get away from the stressful situation, three out of the five consultants simultaneously went on their annual leaves, many of the resident doctors who went for their fellowship examinations in October/November of 2006 also proceeded for their annual leave from the end of November to the beginning of 2007 thus distancing themselves from the perceived chaos. The department became a virtual department and processes were being re-organized, in certain words, “keep the plane flying” while repairs are going on. The CL was able to get his full board in order to keep the work going while the department found itself at that time which typified the white print thinking of Caluwe and Vermak (2004). This qualified the CL as a change agent who has a positive attitude toward conflict and crises. The CL also exhibited some characteristics of green print thinking which combines changing and learning through playing facilitating role and displaying attributes of empathy, creativity and openness (Caluwe and Vermak, 2004). Most CLs are internally motivated and know that “tough time’s never last but tough people do” (Robert H. Schullers, 1984). It was indeed a time to get tough and get going. This was a transformational change which is unpredictable and uncontrollable thus must be shaped and adapted as it unfolds (Anderson and Ackerman Anderson, 2001).

How did we proceed?

Based on the critical number of resident doctors in the department of anaesthesia, definitely outnumbering the consultants at a ratio of 4:1, the CL had to have them on board in order to keep the work going while the department and processes were being re-organized, in other words, “keep the plane flying” while repairs are going on. The CL identified a very vocal senior resident doctor (potential problematic stakeholder) and through dialogue that took place along the corridors and in car parks at various times, the CL was able to get his full support. He was converted, became a motivator and was able to break any resistance from his colleagues to the change process. The CL also had a number of meetings with strategic stakeholders namely, the then Chairman of the Medical Advisory Committee (CMAC) who functions as the director of hospital services; and the Chief Medical Director (CMD) who is the chief executive of the hospital. These were initially advocacy meetings held with the CL only, but later included a senior colleague/consultant

**Leader’s Response**

The key elements of a comprehensive change framework (Herold and Fedor, 2008) will be used to analyze the leader’s response. This framework presents what needs changing, how to proceed, and implementation of change in relation to who will lead, who is expected to follow, internal and external contexts with a possibility of altering elements of the situation and/or reconsideration of the change process (Figure 1).

The needs were identified and the main question *WHAT do we think needs changing* was answered and can be categorized into five areas:

1. An urgent need for an office complex for the department of anaesthesia.
2. A need to improve the morale of the consultants and increase their commitment.
3. A need to get the residents doctors involved in the change process, motivate them and restore hope.
4. A need to get the technicians re-committed and be part of the change process taking place.
5. A need to get the new intensive care unit staff to work with the anaesthesia department and to realize that the new level of work required calls for partnership with the anaesthetists and also must be anaesthesia-led for it to be sustained.

The change process was not carried out in any particular order but was going on simultaneously. At the time of the change, the change leader (CL) did not have a model to follow but was instinctively leading the change process following logic in an attempt to save the situation that the department found itself at that time which typified the white print thinking of Caluwe and Vermak (2004). This qualified the CL as a change agent who has a positive attitude toward conflict and crises. The CL also exhibited some characteristics of green print thinking which combines changing and learning through playing a facilitating role and displaying attributes of empathy, creativity and openness (Caluwe and Vermak, 2004). Most CLs are internally motivated and know that “tough time’s never last but tough people do” (Robert H. Schullers, 1984). It was indeed a time to get tough and get going. This was a transformational change which is unpredictable and uncontrollable thus must be shaped and adapted as it unfolds (Anderson and Ackerman Anderson, 2001).
anaesthesiologist. This strategic stakeholder approach (Goodijk, 2003) to the dilemma facilitated a quick response manifesting as construction of office spaces for the department. Around this period, the CL was also dialoguing with the chief nursing officers (CNO’s) and nursing staffs of the intensive care units and sharing information and ideas with them so as to carry them along in the change process. It was a two-way relationship because the CL had initially experienced some hostility from the intensive care unit (ICU) CNO’s due to their lack of understanding of the mutually interdependent relationship that must be cultivated by both the anaesthetists and the intensive care nurses, in order to get the ICU fully functioning. The CL was simultaneously communicating with the technicians of anaesthesia department and the hospital consultant on contract with the hospital, who prior to his retirement had been head of anaesthesia for 15 years thus a major supporter stakeholder. Continuous communication with him ensured his buy-in to the change process as he wielded a large influence on residents and technicians and is seen as a father figure to all the staffs. Overall, communication was used as the main tool to establish proper understanding of the dilemma of the department. Indeed, people can be energized by communication because it creates meaning and sustains change by increasing understanding and acceptance (Proctor and Doukakis, 2003). Chaos will have a negative effect if action is not quickly taken and this was appreciated by all stakeholders. According to Bryson (1995) “strategies that do not take stakeholders into consideration are almost certain to fail”. All hands were on deck to make sure everything worked out fine. It became our problem and not just departmental problem and balancing the interest of various stakeholders (multitude of stakeholders) as suggested by Cummings and Worley (2001) was achieved.
Who was leading?

The CL happened to be acting for the head of department (HOD) who was on leave at that time. Even after the HOD’s resumption, the CL continued this role exhibiting an energizing example. The three dimensions of organizational transformation that change leaders must perform are envisioning, energizing and enabling (Anderson and Ackerman Anderson, 2001; Cummings and Worley, 2001). This change leader was successful in motivating one consultant/faculty at a time as they resumed and they became fully supportive thereby participated in the process. This confirms Herold and Fedor’s (2008) opinion that “in terms of potency, personal interactions are more powerful in influencing followers' behavior”. The CL had buckets of influence to draw from. Although this CL was a Lecturer 1/Consultant Anaesthesiologist, this CL at that time was also the public relations officer of the Nigerian Society of Anaesthetists, the treasurer of the Nigerian Medical and Dental Consultants Association, UPTH Chapter, and became the general secretary in February 2007 while the change process was on. The CL had goodwill with the surgeons having been the treasurer of the local organizing committee of the 3rd annual congress of the Association of Surgeons of Nigeria that was held in Port Harcourt in March 2005. The CL had a reputation for successfully organizing conferences as well as speaking in both national and international conferences. The CL was a hands-on person who was involved in managing challenging paediatric surgical cases and was also a certified European Resuscitation Paediatric Life Support Instructor. The CL’s ability to motivate everyone showed some charisma, as well as demonstrated some change savvy behaviors characteristic of motion leaders (Herold and Fedor, 2008;Fullan, 2010.). Although, the CL was not the head of department, thus not having positional influence, the CL drew from other reservoirs of influence namely, qualitative relationships, charisma and the excellent reputation that was built over the years. Having different sources of influence, which according to Herold and Fedor (2008) are not mutually exclusives, helps to increase the potential of a change leader for success.

Who followed?

It seemed that the change process quickly and steadily built up excitement and followership. The hospital management, consultants, resident doctors, nurses, anaesthesia department technicians as well as a large number of hospital staff all keyed into the process and wanted to be associated with the new developments in anaesthesia. Everyone concerned desired to see that the department of anaesthesia was quickly stabilized and optimally functional. Perhaps the two options were float or sink and majority of followers chose to float.

Internal Context

The consultants in anaesthesia had a lot to gain from the successful change process especially one that will provide offices for them and they were highly encouraged and expectant. The management of UPTH was very responsive and the construction required was to be funded from the relocation budget avoiding any delays. The department was a priority to management. Subsequently, the morale of the consultants and residents in the department was restored and became positive. The hospital management, and most especially surgery, obstetrics and gynaecology departments would all benefit from a highly motivated anaesthesiology staff because that will translate to more operating slots and higher returns on investment.

External Context

The social situation associated with the relocation of the hospital to its permanent site required innovation, creativity and some alterations in the work processes in the hospital generally. Because of the long distance of the new hospital site from the city centre where most hospital workers still lived, and the travelling time associated with coming to work, many departments reacted by changing from running three shifts to two shifts work-schedule. The benefits were a reduction in the frequency of travelling for employees, reduction in travelling expenses, and minimization of the risks involved in coming to the out-sketch of Port Harcourt (Choba) to work night shifts. Although, the working hours increased, most workers were willing to try new work schedule because the benefits which include more time off, outweighed the cost of more working hours. There was good alignment all round with most people in the theatre now working permanent mornings and shifts or calls that are similar. Although this was not the final work schedule, it was used for well over 3 years (last quarter of 2006 to 2010). Thereafter, it was observed that the relocation of the teaching hospital to Choba had opened up the area for new businesses, the population and traffic around the area continued to increase and safety improved. These new developments informed the management of UPTH to revert to the traditional three shifts common in healthcare organizations and hospitals. Other factors in the external environment was the risk of los-
ing accreditation by the postgraduate colleges for training of specialist anaesthesiology and the risk of losing accreditation by the Nigerian Medical and Dental Council for the training of medical doctors if the hospital failed to meet the minimum acceptable standards. The embarrassment of falling down the academic ladder and losing academic value will be too much to bear. There will be a domino effect on the other departments if one department failed because all the departments are interrelated. In the event of failure, the hospital may be downgraded. Being a Federal Government Hospital and the last referral center in the Rivers State of Nigeria, the urgency to maintain our standard and re-organize quickly was present. There is also the risk of losing our patients to our main competitor, the Braithwaite Memorial Specialist Hospital (BMSH) and therefore losing market share. This would have a major economic disadvantage for UPTH. Our specialists and hospital staff may leave the UPTH for greener pastures; therefore, change and upgrade were the only options.

Implementation

Construction of office complex for department of anaesthesiology

The result of the meetings with the CMAC and CMD was a decision to convert a wide corridor into a long block of offices for the anaesthesia department. The first phase of the construction immediately took off and this gave hope to the staff of the department of anaesthesia. It was completed within 3 months, a visible progress observed and monitored by all stakeholders. The new department had 1 seminar room, 4 consultants’ offices and 1 head of department’s office with a secretary’s office. In addition to this, the theatre revolving fund’s (TRF’s) office was conveniently placed in this complex. TRF is the business unit of the theatre and was run by a multi-professional committee and chaired by the head of anaesthesiology department. The revolving fund scheme was introduced as a system of recycling all internally generated funds so as to supplement government subventions (Ugboma and Ugboma 2009; John et al., 2000). The second phase of the construction was completed by the end of 2008 with 5 more offices created to accommodate the growing anaesthesia faculty. By 2009, the department had 9-member faculty made up of one associate professor, two senior lecturers, three lecturers’ grade 1, and three newly appointed lecturers’ grade 2. In addition, the head of department’s office was enlarged on the request of hospital management and provost of the college of health sciences. The department of anaesthesia was jointly furnished by the teaching hospital and the university now being recognized as both service and academic offices.

Creation of an academic focus for Consultant Anaesthesiologists

The transformational change involved the commencement of dialogue between the initial 5 faculty members/consultants on how to share the work based on each person’s academic interest. Instead of the work flow to be based on provision of services, it will eventually be performed based on the passion of each consultant. Plans were also made to train and research along each consultant’s sub-specialty of choice and by 2008, when yet another consultant was employed; the work was crafted along 7 different groups of interest, as shown below: 1. ICU, Anaesthesia for General Surgery and Advanced Life Support 2. Anaesthesia for Neurosurgery and General Surgery 3. Obstetric Anaesthesia and Epidural Service 4. Anaesthesia for Orthopaedic Surgery, Regional Anaesthesia and Chronic pain management 5. Anaesthesia for Ear, Nose and Throat Surgery, Plastic Surgery and Urology. 6. Paediatric Surgery, Maxillofacial Surgery and Ophthalmology. 7. Theatre Administration and logistics

All the consultants were to provide gynaecology services until such a time that more consultants were employed and the work further split. The hospital consultant will dedicate his time to theatre administration and logistics. This, the academic consultants agreed is a welcome relief and will enable them to focus on research. The consultants work schedule commenced in 2008, but was further enriched in 2009 by the return of a consultant after completing a 6 months post fellowship obstetric anaesthesia training in Israel. The consultants’ new work schedule will encourage knowledge and skills development as each of them takes ownership of his/her sub-specialties; has the potential to improve the working relationship between consultant anaesthesiologists and their surgeon colleagues; as well as encourage collaborative research. What was demonstrated is known as job crafting defined by Wrzesniewski and Dutton (2001) as the process of employees redefining and reimagining their jobs in personally meaningful ways. Meaningful work refer to the work that the employees believe is significant because it serves an important purpose (Pratt and Ashforth, 2003; Berg et al., 2013) and this has a positive correlation within created job satisfaction, motivation and performance (Grant, 2007).
Strengthening of Resident Anaesthetists teams

The resident’s roster was also changed and teams made up of 2 or 3 levels of anaesthetists were formed when new residents joined the training programme in 2009. These teams were initially led by the consultants but as soon as the sub-specialties became operational, the teams became led by the most senior registrar (resident). Teamwork which actually started before the relocation, around 2004 was further fine-tuned and progressively improved over the years. The teams get reshuffled from time to time to enable interactive learning and sharing amongst different members of anaesthesia teams.

Reorganization of Anaesthetic department Technicians

These very important group in the anaesthesia workforce where not left out of the change process. The technicians traditionally worked three shifts irrespective of their level and experience and they can be posted anywhere depending on the need and how the roster was made. However, with the review of the work process in the operating rooms, and after much dialogue with the technicians and brain storming with all members of the department, a unique way of working was created for the technicians. The most senior technicians began to work permanently in the mornings and were put in charge of their own operating theatre thus empowering them and making them responsible for the junior technicians. One senior anaesthesia department technician was in charge of one of the 7 areas of service / operating room (OR):

1. Obstetric theatre complex (2 theatres)
2. ENT/Ophthalmology/Maxillofacial theatre complex (2 theatres)
3. Main theatre complex OR 1 (Emergency theatre)
4. Main theatre complex OR 2
5. Main Theatre complex OR 3
6. Main theatre complex OR 4
7. Main theatre complex OR 5 and 6 (2 Orthopedic theatres)

The technicians in these areas are expected to take full ownership of their theatres and must be fully in-charge of all the equipment provided to ensure smooth running of anaesthesia services. They also work closely with the theatre nurses. To facilitate the technicians’ duty, storage cabinets, tables and chairs were provided in the pre-anaesthesia rooms where preparations can be made just before entering the OR. All pre-anaesthesia room furniture was completely installed by the beginning of 2009 thereby boosting the morale of the technicians and making them feel they belong. Prior to the provision of the theatre furniture, technicians sat in the changing rooms in between cases and were sometimes tempted to leave the theatre on the slightest excuse.

Anaesthesiology Department and ICU nursing nurses collaboration.

The ICU nurses came on strong as a potentially "antagonistic” stakeholder immediately after relocation of the hospital and the change leader decided not to deal directly with them. They were used to working on their own prior to relocation and working with anaesthetists in the new ICU was seen as giving up their power and authority. They were ready to fight for their territory. To pave the way for collaboration and a sustained working relationship, the most senior consultant anaesthesiologist was asked to organize the ICU. This consultant was well respected, is the first specialist to qualify as an anaesthesiologist in Rivers State and also the first academic head of department. She spear-headed and facilitated the accreditation of the department of anaesthesiology in 2001 and practically held the department together in the early days. Therefore, drawing from her reservoir of personal credibility, charisma and reputation, a standard for the ICU was set. She directed and started the business model called the ICU revolving fund which is being used till today. The CL realized that the best person to bridge the gap between anaesthesia and ICU was no other person but this well respected, fully supportive, very senior consultant stakeholder.

CONCLUSION AND RECOMMENDATION

There are no hard and fast rules for transformational change. The change leader's ability to envision, energize and enable colleagues played an important part in this process. The application of the key elements of a comprehensive framework can be appreciated in this change process. Fortunately, a situation of urgency played a role leading to innovation and creativity in handling the change. Furthermore, the fit was perfect and the change transformation had the right people, the right timing, the right place and the right strategies which supported reorganization and moved the department of anaesthesia from being just a service department to an academic department. Transformation is dynamic and many more changes continue to take place and are expected to take place in the future. Inclusiveness of all stakeholders early in the planning phase, anticipating possible problems and adequate preparations for different types of scenarios will enhance smooth transformational change. Flexibility must be built into the change process to make room for reviews and
further improvement.

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