

Leadership Styles and Qualifications for Emergency Medical Service Managers

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Abstract

The current practice of appointing Emergency Medical Service (EMS) managers purely on a medical qualification without a managerial qualification needs to be revisited. EMS by virtue of its nature of operations makes the industry dynamic and Paramedics need good leadership together with strong management so that the core objectives of EMS become easier to achieve.

The literature reviewed showed that managers with managerial qualifications were better equipped to manage than those managers without a qualification. Managers can learn and better their leadership styles whilst simultaneously improving their relationship with the staff. A formal managerial qualification is beneficial to managers since it empowers them with the knowledge to make informed decisions. The advantage of an Advanced Life Support (ALS) qualification over an Intermediate Life Support qualification is obvious, however the smaller number of ALS graduates does not allow for the successful fulfilling of all EMS management posts.

The findings of this study suggest that EMS managers need exposure to managerial and leadership training programmes and that the minimum requirements for an EMS manager's post should be an ALS medical qualification as well as a managerial qualification. The findings also revealed a mismatch between the leadership tendencies of EMS managers and the staff's preference of a leadership style.

Keywords: Leadership styles; Emergency medical services; Qualifications; Paramedics; Advanced life support; Emergency medical services management; Management training

Introduction

The overall objective of this research is to determine, firstly what the ideal medical qualification for Emergency Medical Service (EMS) managers in KwaZulu-Natal (KZN) is, secondly to assess whether EMS managers should possess a management qualification and thirdly to determine what leadership style is most suited to the management of emergency care personnel in the EMS.

Background to the Research

Since its origin in the 1960's, Monosky [1] states that EMS has evolved, adapted and maximized its efficiency and effectiveness in pre-hospital emergency care with specialized equipment and trained emergency care providers, gaining recognition as a profession within the healthcare system. Pre-hospital EMS is acknowledged as a specialized vocation of highly skilled paramedics dedicated to saving lives. Saunders [2] notes that EMS is evolving rapidly with regards to the way patients are evaluated and managed in an emergency setting and that paramedics recognize that a wide knowledge base and a continuously increasing set of skills is vital, almost critical, to the clinical management of the patient. This current surge in academia coupled with changes in the scope of practice has placed EMS in the limelight.

Globally, the scope of practice for pre-hospital emergency care workers are categorized into three levels, namely Basic Life Support

providers (BLS), Intermediate Life Support providers (ILS) and Advanced Life Support providers (ALS). The term 'Paramedic' [3,4] globally refers to a health care worker whose line functions is the provision of pre-hospital emergency care management, stabilization and transportation of the sick and injured. In South Africa the title of 'paramedic' is reserved for individuals whom are ALS qualified.

The KZN Department of Health through the mandate of the South African National Government provides EMS in the Province of KZN, known as EMS: KZN. In the view of improving service delivery to all citizens of KZN, EMS has been decentralized into 11 districts which are aligned to the municipal districts as constituted by Local Government. The EMS district names are synonymous with the municipal district they service. In each municipal district, EMS has bases strategically positioned with the intention of reducing response times to the patient's.

The daily operations of EMS is identical in all districts in that each district provides the same level of care, functionality and has the same district management structure. Each district is managed by a district management team. The district management team reports to the Senior Management of EMS: KZN who are based at Head Office in Pietermaritzburg.

A closer examination of the key performance areas, as per the post advertisement, together with the knowledge, skills and competencies required shows that a medical qualification alone is insufficient, the post incumbent must be able to plan, organize, lead and control EMS within the ambit of all relevant Public Service and Government legislations. It could be argued though that some of the requirements, for example EMS operating procedures, presentation skills and

computer literacy could be obtained through in-service training; however, based on the Knowledge, Skills, Training and Competencies required, the incumbent candidate should already possess these requirements in order to be eligible for appointment into the post. Therefore it is suggested that the post may be ideally suited to either an ILS or ALS qualified practitioner with a managerial qualification.

The Key Performance Areas requires the Shift Leader and Sub-District Manager to be able to (a) implement the operational plan at a functional level by providing guidance and managing the execution of the operational plan, (b) to ensure that staff are able to deliver on the core business objectives of EMS which is responding to patient emergencies and (c) engage in intra-sectoral collaboration with all relevant stakeholders.

The key resource for success is staff buy-in. Without the appropriate skills such as the ability to persuade the staff into accepting and aligning to the operational plan, negativity and resistance will occur. The lack of planning in respect of resource allocation to meet the core business objectives of EMS, may further compound the problem. The Shift Leader and Sub-District Manager must therefore be able to persuade the staff towards the achievement of the goals or objectives of EMS, hence the leadership ability of management is important in order for EMS: KZN to achieve its objectives and mission and vision.

Vinkovic [5] states that organizations must improve their capacity to have involved leadership since we are in a “knowledge economy” and leadership ability is the key to be able to leverage the human capital to create success. EMS: KZN needs to examine the leadership ability of its current district management structure and empower these managers so that they can be effective managers.

EMS Training

Naidoo [6] affirms that there are currently eight different qualifications within EMS in South Africa, the latter two qualifications being a Master’s and Doctorate degree with no additional scope of clinical practice. Naidoo [6] and Stein [7] concur that there are currently six scopes of practice as regulated by the HPCSA. Basic Life Support (BLS) is the entry level medical qualification via the short course route and the BT:EMC is the exit level qualification from a tertiary institution. As the hierarchy of qualifications increases, so too does the scope of practice with the widest scope of practice being that of the Bachelor’s Degree in Emergency Medical Care (BT:EMC). The variations in these qualifications are due to the scope of practice and the capabilities of the relevant qualification. The Health Professions Council of South Africa (HPCSA) is currently reviewing these qualifications in an attempt to align them to the national qualifications framework and streamline the profession.

According to Stein [7] formal pre-hospital emergency medical care training in South Africa started in the late 1960s to meet the needs of an emerging and growing industry. Emergency medical care training focused on “in-service, short contact and skills-based methodologies”. In the late 1980s a more structured and nationally accepted curriculum was offered by the Provincial Ambulance Training Colleges with these courses having stringently defined scopes of practice, capabilities and treatment protocols. The three levels of training previously and currently offered are:

1. Basic Ambulance Certificate / Basic Ambulance Assistance / Basic Life Support (BAC / BAA / BLS),

2. Ambulance Emergency Assistant / Intermediate Life Support (AEA / ILS)
3. Critical Care Assistant / Advanced Life Support (CCA / ALS)

In 1986 a full-time three year programme, the National Diploma in Ambulance and Emergency Technology (N.Dip.AET) was offered by the Technikon throughout South Africa. This programme loosely incorporated the above three courses and comprised of medical rescue, basic and ancillary subjects. In 1998 the diploma was re-curriculated and renamed the National Diploma in Emergency Medical Care and Rescue (ND:EMC). The introduction of the Bachelor’s Degree in Emergency Medical Care and Rescue (BT:EMC) in 2000 resulted in the end of the ND:EMC.

The ND:EMC was phased out completely in 2011. The BT:EMC is a four year professional degree that has an additional scope of practice to that of the CCA and ND:EMC graduate. The benefits of the BT:EMC is that the qualification includes a module of Management Practice aimed at providing paramedics with the basic tools and knowledge of management and the BT:EMC is aligned to the international trends in the EMS industry.

The Master’s Degree in Emergency Medical Care and Rescue (MT:EMC) was implemented in 2005 and in 2007 following the review of the short courses a full time two-year mid-level qualification, the Emergency Care Technician (ECT) was introduced. The ECT scope of practice is higher than that of an Intermediate Life Support provider, but below that of an Advanced Life Support provider. Most recently (2013) a Doctorate in Emergency Medical Care and Rescue (PhD:EMC) has been introduced. The post graduate qualification of Master’s and Doctorate in EMC is totally academic and research orientated and has the same clinical scope as the BT:EMC.

The current EMS qualifications are:

- Basic Ambulance Assistance / Basic Life Support (BAA / BLS),
- Ambulance Emergency Assistant / Intermediate Life Support (AEA / ILS)
- Emergency Care Technician (ECT)
- Critical Care Assistant / Advanced Life Support (CCA / ALS)
- National Diploma in Emergency Medical Care and Rescue (ND:EMC)
- Bachelor’s Degree in Emergency Medical Care / Bachelor of Health Sciences Degree in Emergency Medical Care (BT:EMC / BHSc. EMC)
- Masters Degree in Emergency Medical Care (MT:EMC)

This two line approach of non-NQF aligned in-service short course training programmes (qualifications of BLS, ILS, CCA and ECT) and the formal NQF-aligned programmes through Higher Educational Institutions (BT:EMC, MT:EMC and PhD:EMC) is currently under review by the regulatory bodies. However, without any immediate decision or direction being readily available, the two-line approach continues.

Research Problem

The pre-hospital environment is quite challenging due to the constant changes to the physical environment, the new developments in academic qualifications and the constantly evolving scope of practice of emergency care personnel. By virtue of a medical qualification, paramedics are eligible for a manager’s post but some

managers appear to have difficulty in managing such a diversified field of emergency care personnel.

It is important to maximize efficiency and effectiveness to achieve organizational objectives. Agarwal [8] states that in the medical field it is a team based approach not just an individual that helps manage the patient. The in-decisions or wrong decision or poorly allocated resources or lack of resources can be detrimental to the patient's outcome. As a manager one has to accept responsibility for their decisions. Pre-hospital care providers face emergencies daily therefore managerial and leadership skills will be highly beneficial in aiding the decision-making process during emergencies and other routine daily tasks.

Aim of the Research

This descriptive research aims to describe the characteristics of leadership styles for EMS staff and managers and to investigate the importance of a managerial qualification and medical qualification to EMS managers in EMS: KZN.

Research Questions

- What is the appropriate medical qualification for EMS managers at EMS: KZN?
- What is EMS: KZN Staff's perception of the importance of a managerial qualification for EMS managers in EMS: KZN?
- What is the current leadership style of EMS managers in EMS: KZN?
- Do EMS: KZN staff have a preferential leadership style?
- What recommendations can be made to the senior management at EMS: KZN?

Significance of the Study

MacFarlane et al. [9] suggest that the efficiency of EMS in any country is based on the readiness of the paramedics. In South Africa, EMS is considered an essential component in the continuum of care since the patient's first point of contact with the health system is EMS and this interface between communities and primary health care services and hospitals in times of an emergency is crucial.

Thus the role of the paramedic is vital and when adequately managed together with good leadership, the standards of patient care will improve to benefit the patient and ultimately the country as a whole. Leadership is one facet of management, but it is the key to extrapolating productivity. This study is important in that it will address issues of EMS that may be overlooked such as:

- Leading a team of highly skilled paramedics in an environment with rapid changes to academia, equipment, technology, global conditions and a diversified work force is a challenge.
- The benefits of a managerial qualification towards improving efficiency and effectiveness of EMS management.
- The benefits of a managerial qualification towards EMS staff development.
- Finding a leadership style that maybe suitable to the pre-hospital industry.
- The appropriate medical qualification for EMS managers.

This research will be beneficial to all EMS providers in that it will show the relevance of a management qualification for EMS managers

and will determine the most effective leadership style that will improve efficiency and effectiveness of paramedics and the EMS industry holistically. The academic importance of this study is that it will contribute to knowledge by highlighting the significance of leadership and managerial qualifications for the betterment of the profession and can be incorporated into paramedic and EMS training programmes.

Literature Review

The literature review aims to satisfy three objectives, namely:

1. To determine what is an appropriate medical qualification for an EMS manager in EMS: KZN.
2. To determine whether a managerial qualification should be an inherent requirement for managers in EMS: KZN.
3. To evaluate the different leadership styles.

With the intention of achieving these objectives the literature review will comprise of three focus areas namely the medical qualifications, the benefits of a managerial qualification and the leadership styles?

Medical Qualifications

Traditionally in a medical setting, the most senior medical person should be in charge. In the context of EMS: KZN, if an ILS qualified Sub-District Manager or Shift Leader is managing a patient, they will take instructions and advice from the ALS paramedic with regards to the patient management, yet in the operational hierarchy, the Sub-District Manager or Shift Leader is senior to the ALS paramedic.

It has been suggested (anecdote) that an ALS qualification (CCA, ND:EMC or BT:EMC) is the ideal medical qualification for an EMS manager. The ALS qualification provides the incumbent with good understanding of health acts and HPCSA scope of practice, of which there are currently six, and an ILS qualified practitioner is only thoroughly familiar with two, the other four are at a higher level than the current ILS scope of practice. The Health related Acts, HPCSA Protocols (scope of practice) is better understood by an ALS practitioner due to their training, exposure and capabilities of the scope of practice. The advertisement for an EMS manager's post lists knowledge of HPCSA protocols as one the core competencies.

As at 31 March 2012, statistics from the HPCSA (2013) shows that there were 7 539 registered ILS practitioners, 1 657 ALS practitioners of whom 166 are BT:EMC qualified, the other 1 491 ALS practitioners are either CCA or N. Diploma AET / EMC qualified. This represents the total number of the practitioners in their respective categories registered in South Africa. These practitioners are employed (a) internationally, (b) in the private and public sector EMS nationally, (c) in private companies as safety officers, and (d) as lecturers at provincial and private academic institutions.

These practitioners within their respective areas of employment perform either of the following functions: (a) clinical operations – respond to patient's request for medical assistance, (b) emergency medical dispatchers – staff in a call centre that answers the request for medical assistance and then dispatches the appropriate resources, (c) managers, (d) lecturers or (e) administrative duties. Due to the limited number of ALS practitioners available and considering that ALS is listed as a scarce skill within the EMS industry in South Africa [6], the tendency is to maintain the ALS practitioners as operational personnel due to their scope of practice and skill capabilities. In view of the

scarcity of ALS and the higher number of ILS it is easier to fill management posts with ILS rather than ALS.

Conclusion: Medical Qualification

The literature reviewed did not provide any substantiated evidence that an ALS qualification is more beneficial than an ILS qualification for EMS managers in the execution of their managerial duties. The lack of suitable substantiated literature from the literature reviewed impedes the ability to make a reasonable deduction as to whether ILS is indeed a suitable medical qualification for managers in EMS.

Managerial qualification

Edward [10] highlights the different decision making process between doctors and managers in that clinical decisions have resource implications. Doctors however do not consider the financial implications of their clinical decisions and make their decision based on a single patient whilst managers' decisions are based on groups, trends and statistics. Edward's insight bears relevance to EMS and paramedics in that the issues are very similar and is a common argument in EMS between staff and managers. This argument fuels the speculation of whether a medical manager with a managerial qualification is better equipped to make managerial decisions emanating from clinical matters.

Management training programmes are aimed at equipping the manager with the correct business skills and according to Hill [11] an organization can surpass its competitors if the organization has the people with the right skills in the right post.

Management development is a dual strategy according to Hill [11] that an organization can utilize, firstly it will assist the manager in accomplishing the organizations strategic objectives and secondly it provides the manager with the required skills to manage within the organization.

Benefits of a Managerial Qualification

"To qualify or not to qualify"...The management qualification quandary is an issue that shouldn't be taken too lightly (Smith, 2011:1). Doctors, paramedics and lawyers need recognized qualifications before they become eligible for a post, but it is common practice, as evidenced by the requirements in the post advertisements, for EMS managers to be appointed because they possess only a medical qualification for the industry and not a recognized managerial qualification.

Smith (2011:4) highlights that there has been no exercise that has calculated the costs of non-qualified managers, yet it is common knowledge that these individuals are in managerial positions "without understanding what a manager is" and worryingly there are no assurances that these individuals can successfully integrate into management.

McBain et al. [12] found that managers rated recognized qualifications as being more beneficial to their management arsenal than on-the-job training. Wilton, Woodman, and Essex, (2007:8) infer that an organization whose managers had a qualification was more productive than an organization whose managers had no qualifications.

McBain et al. [12] are of the view that higher performing organizations invest in their line managers so that the manager can

achieve higher levels of employee engagement, therefore McBain et al. [12] offers the following suggestions to improve organizational effectiveness and realize higher levels of employee engagement.

Firstly the organization must develop management capability through a formal learning programme, thereby improving competencies and knowledge and obtaining recognition by means of a certified qualification, secondly the organization should develop a customized in-service training programme aligned to the Knowledge, Skills, Training and Competencies required, and thirdly provide both internal and external support to the manager and create opportunities for career advancement.

The benefits of a recognized managerial qualification, based on the views of McBain et al. [12] is that:

- The qualification meets the organizations requirement for competence,
- The learned knowledge helps develop competency guidelines,
- The transfer of knowledge to the organization is better due to the assessment methods of the recognized qualification,
- They are suitable and can be aligned to the post requirements,
- The organizational reputation, effectiveness, efficiency and competitiveness is enhanced, and
- Qualified managers are more confident and feel empowered in the task abilities.

Jayasuria [13] identified poor manager qualities and indicates that managers can undertake a conscious self-evaluation to determine if they (manager) have any of these poor qualities. The poor qualities as identified by Jayasuria are:

- Poor Prioritising of their work and that of others.
- Time management – poor time keep, such as arriving early and leaving late shows that the manager is unable to prioritise or pace the work.
- Biased action – poor selection and placement of staff in the incorrect roles based on the manager's preference for that individual.
- Ineffective decision making skills – delays decision making in order to be safe,
- Poor communications – lack of open, honest and transparent communication.
- Procedural bound – lack the ability to see the "bigger picture" in an evolving industry.
- Sensitivity – lack of action for the fear over upsetting someone.
- Biased selection – choosing individuals who are less qualified and easily intimidated so that the manager can push his/ her own agenda.
- Lack of vision – looking at past performances and ignoring current changes leads to poor decision making and poor planning both of which affect organizational performance.

Poor decision-making – affects staff morale and is directly attributable to staff performance. Workplace bullying by the manager has negative effects on staff performance and does not improve the manager's people skill.

Conclusion: Managerial Qualification

Blissett [14] points out that when organizations ignore the need for managerial qualifications and competencies, the result is that the staff

have to deal with needless stress due to the bullying, intimidating and uncivil actions by the same managers who are rarely disciplined for their inappropriate actions. These bad behaviours also account for why the organization is unable to fill internal vacancies in those areas. The immediate impact of these appointments is the ongoing financial losses, poor work attendance records, negativity within the workplace and long term higher attrition rates. Blissett's view is that a qualified manager is empowered to create a working environment in which quality production is the end result based on a committed workforce where staff feels that they matter and belong to a learning organization that recognizes competence.

Leadership

“Leadership is the eighth wonder of the world” according to Burnison [15] and he suggested that it is easier to see and feel leadership than to actually define leadership.

Nel [16] define leadership as the ability of an individual to coax the behaviour of others (individuals or teams, staff, and colleagues) into achieving a desired result, goal or objective. Leadership can also be defined as the ability to persuade others towards the achievement of a goal or objective [17]. Hellriegel et al. [18] as well as Jones and George (2009:557) explain that leadership is a process of achieving organizational goals thorough resources and staff (either teams or individuals) and is not necessarily a subset of management.

Vinkovic [5] points out that the similarity in all leadership definitions is that leadership is a “process of influencing the activities of others” and involves a leader, a situation and the staff. Hersey et al. and Vinkovic [5] agree that a manager’s leadership style is influenced by their decision making ability, personality, the working environment and the situation at hand, thus leadership is all about the approach adopted by the manager. The factors that affect the situation is the manager, the readiness of the staff, the supervisor and acquaintances, the organizational culture, the job requirements and the time available to make a decision. There is a wide range of leadership styles that a manager may choose to use and the choice can be influenced by various factors. However, these authors state that by “learning and

practicing these leadership skills, it will enhance every potential leader’s effectiveness”.

Nel et al. [16] identified three core competencies of leadership, which is almost similar to Daft’s managerial skills set. The core competencies identified by Nel [19] are:

1. Diagnostic (Cognitive) – Understanding the gap between the current situation and the anticipated future situation.
2. Adaptability - Ability to revise your behaviour and available resources to manage the gap between the current and future situation.
3. Communications – The ability to communicate with people in a manner that they are able to understand and accept the situation.

The summative opinions of Vinkovic [5], Hellriegel et al. [18], Nel et al. [16] and Hersey et al. [20] is that leadership skills are based on interpersonal relationships and not administrative activities or directives. The success of leadership is based on the leader’s ability to build trust, provide clear direction on the way forward and encourage open communication so that employees can make the right decision with confidence whilst allowing the staff the opportunity to take calculated risks.

Vinkovic [5] states that leadership is a process; “the distinction is between leadership and management, not leaders and managers.” Irrespective of the terminology, ‘leaders’ or ‘managers, people in a position of responsibility undertake both leadership and management as shown in Tables 1, 2 and 3. The similarities between leadership and management is that both are concerned with outcomes, networking with people to build relationships to achieve the outcomes and then ensuring the network of people and relationships complete the allocated tasks. Leadership should not be viewed as a replacement for management, but rather a way to enhance management. The key difference between Leadership and management is the focus. Leadership and management aren’t mutually exclusive; both are required in the present day due to the dynamically changing business landscape both nationally and internationally.

Description of Need	Maslow	Herzberg	Alderfer
Need for food, clothing, shelter	Physiological	Hygiene	Existence
Need to be free from physical harm and deficit of the physiological needs	Safety (security)		
Need to belong to society or social group	Social (affiliation)		Motivators
The need for recognition, respect and good opinion	Esteem (recognition)	Growth	
The need to make the most of one’s ability	Self-Actualization		

Table 1: Comparison of the motivational leadership theories. Source: Hersey et al. [20] (Adapted).

Conclusion: Leadership Theories

Hersey et al. [20] concluded that there is no one best style of leadership! Leadership must be seen within the context of which it is being applied i.e. the situation at hand. The key to effective performance is the leader’s ability to adapt to the situation knowing that the situation is influenced by the present factors and the wiliness

and readiness of the staff or team. Researchers (Blake, Mouton and McGregor) contend that the one-best style of leadership is a style that “maximises productivity and satisfaction, growth and development in all situations”, however on-going research strongly shows that there is no one best leadership style.

Behavioural Leadership Styles		
Iowa Studies	Ohio and Michigan Studies	Blake and Mouton Leadership Managerial Grid
Autocratic	Initiating-Structure	Produce or Perish
Democratic	Considerate	Country Club
Laissez-faire		Impoverished
		Middle of the Road
		Team

Table 2: Comparison of the behavioural leadership theories.

Situational / Contingency Leadership Theories			
Fiedler's Contingency Model	Vroom's Leader-Participation Model	House-Mitchell model	Goal-Path Hersey and Blanchard Model
Task-Orientated	Autocratic I and II	Achievement	Autocratic / Telling
Relationship-Orientated	Consultative I and II	Directive	Democratic / Selling
	Group	Participative	Participating
		Supportive	Delegating

Table 3: Comparison of the situational/contingency leadership theories.Sources: Hersey et al. [20] and Hellriegel et al. [18] (Adapted).

Conclusion

EMS has its own culture and managing in this vibrant and dynamic environment is challenging and exciting.

Management is the key to providing better quality emergency medical care to patients and to accomplish this, leadership skill is required. Leadership skills can be learned and therefore managers with a managerial qualification would have been exposed to the theories of leadership by virtue of their studies and will have some understanding of the impact of leadership on a team / individual.

EMS managers must understand the technical aspects, the medico-legal implications, the requirements of the individual's scope of practice and the resource requirements so that EMS can meet its core objective of quality, evidence-based patient care and transportation. A manager with a medical qualification and a managerial qualification will have a good understanding of EMS therefore planning, co-ordinating and controlling will be much easier. The managerial qualification, leadership skills and choice of leadership style will impact on the how effectively and efficiently the EMS manager would be able to achieve the strategic objectives of EMS.

Research Methodology and Rationale for the Research

Methodology

This descriptive study is based on a positivist mode of inquiry and employs a cross sectional survey style to collect data from a stratified simple random sample. The descriptive research technique was ideal since there is little known about the ideal qualifications for EMS managers or the phenomenon of leadership styles for paramedics. Descriptive research allows for data collection in the natural

environment without interference to the researched phenomenon and is ideal when looking for insight into the nature of the phenomenon, the possible decision alternatives and the relevant variables that have to be considered.

The constraints to this study was time and insufficient research resources available therefore the cross sectional survey was a logical choice. The stratified simple random sampling technique was used in order to have a sample population that is reflective of the total Population of EMS: KZN, since EMS: KZN has various occupational categories. This technique adequately reflects the various occupational categories of EMS: KZN and allows each participant an equal opportunity of being selected. The paramedics within the sample based on their experience have the required information regarding their preferred style of management and are able to offer an opinion on the benefits of a managerial qualification and are representative of the population of paramedics from EMS: KZN.

This research project occurs within a positivist paradigm using a paper-based questionnaire as the research instrument by means of a stratified simple random sampling of the target population, with the intention of gathering valuable descriptive data for statistical analysis. This focus of the research project was to explore the leadership styles for paramedics and to investigate the importance of a managerial qualification to EMS managers. An information letter introducing the researcher, explaining the purpose, aims and objectives of the study was attached to all questionnaires including the pilot questionnaire, as suggested by Saunders et al. [2].

Target population

The next table shows the total staff distribution of EMS: KZN as per their occupational categories; a more detailed distribution showing the ethnicity and gender is reflected in Annexure 5.

Management		Emergency Care Officer (ECO)		Advanced Life Support (ALS)			
Sub-District Managers (SDM)	Shift Leaders (SL)	BLS	ILS	ECT	CCA	ND:EMC	BT:EMC
32	210	1738	859	17	63	27	2

Table 4: EMS: KZN Staff Distribution. Source: Finlayson, 2013.

EMS: KZN has a population of 2 948 as at 28 June 2013. According to Gray [21] it is not possible to evaluate an entire population either due to their size, the time constraints of the lack of research resources, however inferences can be made to the total population by evaluating a smaller number (a sample population) of the population.

Sample size

Using a confidence level of 95% and the data from Table 4, according to the Raosoft sampling frame calculator the ideal sample size should be 340 staff, however due to time constraints, financial implications and logistics the sample size targeted for this study is a minimum of 120 participants. The 120 participants are aligned to the occupational categories of EMS: KZN, with stratified simple random sampling as: 40 Managers and 80 staff (40 Emergency Care Officers and 40 Advanced Life Support).

Results, Discussion and Interpretations

This part provides the results, discussions and interpretation of the data collected from the cross sectional survey using a questionnaire. The discussion follows the pattern of the questionnaire in that the biographical data is examined first followed by the responses to each of the four research objectives. The result for each question is presented in a table based on the frequency of the responses. Each objective is stated followed by a discussion and graphs have been included to augment the discussions.

Sample population

The total population for EMS: KZN staff is 2 948. Annexure 5 provides a more detailed distribution of the staff. The distribution of the 2948 EMS: KZN staff based on ethnicity and gender is:

(a) Ethnicity: Africans=2 482 (82%), Indians=495 (14%), Coloureds=29 (2%) and

Whites=11 (1%)

(b) Gender: Females=705 (24%) and Males=2 443(76%)

The ratio of Males to Females is approximately 3:1.

The sample targeted was a minimum of 120 participants consisting of 40 Managers and 80 Staff. The study was introduced at the various venues and the audience was reminded that this was voluntary and that they could choose not to participate. The return rate was thus maximised by handing out the questionnaire to only those who indicated a willingness to participate in the study.

The response rate was 146 participants (46 Managers and 100 Staff) and this corresponds to a confidence interval of 78% and a 7.91% margin of error.

Conclusion

Objective 1

To determine what an appropriate medical qualification is for a EMS manager in EMS: KZN:

- The current requirements of ILS as the minimum medical qualification has been found to be inappropriate based on the 71% disagreement of the participants.
- A 93% agreement amongst participants suggest that ALS should be the minimum medical qualification
- The current practice of two years ILS experience was unacceptable based on the 78% disagreed.

Therefore ALS is the appropriate medical qualification for an EMS manager in EMS: KZN.

Objective 2

To assess EMS: KZN staff perception on the importance of a managerial qualification for EMS managers in EMS: KZN:

- EMS staff and managers (86%) agree that a managerial qualification should be a requirement for EMS managers.
- EMS staff and managers (94%) agree that a managerial qualification will be highly beneficial in the management of EMS.

Therefore a managerial qualification should be a requirement for manager in EMS: KZN.

Objective 3

To determine the current leadership style of EMS managers in EMS: KZN

Objective 4

To determine if EMS: KZN staff have preference to a leadership style:

- EMS managers use all four of the identified leadership styles and EMS staff prefer that their managers use all four leadership style.
- EMS manager's leadership tendencies = autocratic, democratic, delegative and participative.

- EMS staff's leadership preferences = democratic, delegative, autocratic, and participative.
- The mismatch in leadership style is that managers are task orientated with concern for production whilst staff prefer a managerial style that is relationship orientated with concern for staff.
- The core business of EMS is patient management and transportation and the core business is informed and regulated by standard employer-employee regulations, the individual practitioner's scope of practice and governmental policies, thereby leaving very little room for participative leadership.

These findings from both a management and staff perspective support Hersey and colleagues' theory of situational leadership in that it seems the leadership style should match the situation at hand.

Findings from the research project

The appointment of managers in EMS: KZN based purely on a medical qualification, most frequently an Intermediate Life Support (ILS) qualification without the incumbent having a managerial qualification has been an ongoing practice since the inception of EMS to the point that it is now considered acceptable and almost an unquestionable norm amongst staff and current managers.

The acceptance and the "unquestionable norm" of ILS qualified staff being promoted into management posts is based on the fact that the current assemblage of Sub-District Managers and Shift Leaders were appointed in 2005 in accordance with the Circular of Vacant Posts: NO 15/2005. This circular had a clause that stated "ILS Qualified successful candidates will be expected to acquire an Advanced Life Support (ALS) qualification within 3 years of appointment". No action was taken by the Department of Health in 2008 nor to date was any action taken to ensure that these ILS managers complied with the requirements of the clause in the advertisement.

This lack of action by the Department has cemented the belief that it is totally acceptable for ILS to be the minimum medical qualification for EMS managers in EMS: KZN, despite the fact that ALS is seen as the appropriate qualification which is substantiated by the same clause regarding the completion of an ALS qualification.

The current spectrum of eight medical qualifications and 6 scopes of practice are being reviewed in an attempt to condense and streamline the profession. The aim [6] is for the profession to have three scopes of practice aligned to three levels of practice. This transformation of EMS qualifications has been long overdue and is being implemented based on (a) the current global trends in EMS training, (b) an attempt to abolish the short course system in favour of NQF aligned qualifications from Institutes of Higher Learning, (c) providing professional recognition to Paramedic qualifications and (d) meeting the pre-hospital EMS needs of South Africa.

Findings from the primary research

Research Question 1 – What is the appropriate medical qualification for EMS managers at EMS: KZN?

The analysis of survey elements B1, B2 and B3 found that the participants disagreed with the current minimum requirements of ILS and two years of post qualification experience for an EMS manager's post. The data suggests that the ideal medical qualification for an EMS

manager should be an ALS qualification. The response from current ILS qualified managers with between 1 and 10 EMS managerial experience indicating that ALS is the ideal medical qualification, augments the support for ALS to be considered the minimum medical qualification for EMS managers.

Objective 1 was satisfied in that it was determined that ALS is the appropriate medical qualification for an EMS manager in EMS: KZN.

Research Question 2 – What is EMS Staff's perception on the importance of a managerial qualification for EMS managers in EMS: KZN?

Response to survey elements B4 through to B8 affirmed the need for EMS managers to have a managerial qualification as well as the perceived benefits of managers with a managerial qualification being able to make informed decisions and improve the efficiency and effectiveness of EMS through planning and resource allocations including human resource management. The survey also aligned the key performance areas of EMS managers with modules of a managerial programme and found that both staff and managers believe that these modules will assist in managing their key performance areas. The results of the managers, with and without managerial qualifications agreeing, either "Agree or Strongly Agree" that a managerial qualification is essential for EMS managers further strengthens the claim that EMS managers should have a managerial qualification.

Objective 2 was satisfied; EMS staff's perception on the importance of a managerial qualification was assessed with the data analysis showing an overwhelming support for a move away from the current practice of appointing managers purely on a medical qualification and that a managerial qualification should be a requirement for an EMS managers post.

Research Question 3 – What is the current leadership style of EMS managers in EMS: KZN?

The responses from the managers can be in viewed from two angles, the first is that the manager's responses are what they are actually currently practicing or secondly their answers are based on what they believe that they should be doing. Either view still presents the same answer and identifies the manager's use of the four different leadership styles.

The survey analysis showed that EMS managers used all four leadership styles, the tendency of use of a leadership style based on the aggregated mean scores shows the following order:

1. Autocratic leadership style: EMS managers using this style provided clear and precise instructions to the staff regarding specific goals and objectives. The managers frequently checked on their staff's performance and were able to provide corrective action and demonstrate the process and steps involved in completing the task thereby achieving the objective.

2. Democratic leadership style: The manager persuaded the staff into accepting the task by convincing the staff that they (staff) have the ability accomplish the task. The manager recognized and appreciated that staff's effort and provided timeous feedback to the staff.

3. Delegating leadership style: EMS managers were confident delegating responsibilities to staff with the expectation that the staff will manage the task in its entirety. Managers allowed staff the

autonomy to find and correct their own mistakes and preferred to be aloof from the task.

4. Participative leadership style: Managers included staff in the decision-making process on aspects that affected their work. The managers held frequent meeting with staff and staff are encouraged to ask questions and discuss their concerns.

Research Question 4 – Do EMS; KZN staff have a preferential leadership style?

The survey analysis showed that EMS staff preferred each of the four leadership based on the variation of task and relationship behaviours and the order of leadership preference based on the mean aggregated scores were:

1. Democratic leadership style: The democratic leadership style was the dominant leadership style preferred by EMS staff. Staff is content to accept tasks provided that the managers initiated the discussion and that the managers recognized the staff's ability to accomplish the task. Staff also wanted managers to recognize, acknowledge and appreciate their work.

2. Delegating leadership style: EMS staff, irrespective of race, gender or qualification had the confidence to be able to manage a task on their own indicating a willingness to be part of the team.

3. Autocratic leadership styles: The preference for this style was aligned to task related activities, in that, staff preferred that the manager provide them with detailed instructions, practical demonstration and the specific outcomes of each assigned task. Staff also indicated that they preferred that the manager check on the task progression regularly.

4. Participative leadership style: The preference to this leadership style shows that EMS staff are keen to be involved in policy making decisions. Staff indicated that they want regular meetings with the managers to discuss work related issues without the manager being judgemental. Staff consensus showed a strong inclination to the notion that management should support staff personal development initiatives.

Conclusions

Managers are highly effective if the managers have a theory base from which they are able to practice. Management training provides the essential theories and models of motivation and leadership from which managers can formulate their own individual style or approach (Fisher, 2009:365). Using the summation of Fisher (2009:365), the research believes that EMS staff should be encouraged to purposefully gain knowledge about motivation and leadership through continued education and managerial training programmes then to practically test their chosen style or approach and if possible publicize their findings and recommendations thereby improving the knowledge base of this phenomenon.

The leadership theories discussed in this study have been around for nearly a century and have been empirically tested in the context of business management; however there is limited literature or research that provides sufficient similarity or direct applications of leadership in the EMS industry. Further research in motivation and leadership styles for EMS is needed and is highly recommended.

This study assessed the perceptions of leadership style from both a management and staff point of view, and based on the analysis it seems

that there is a MIS-MATCH between the leadership style of EMS managers and the leadership preferences of EMS staff. It is strongly advocated that further research into leadership styles of EMS managers and staff be undertaken using the 360° rater principle, in that the manager rates his own leadership style and then the manager's staff rate the manager on his or her leadership style. This approach will provide more direct insight into the leadership style, ability and practice within EMS.

Recommendations

The seven recommendations that emanates from this research project is as a result of a critical analysis of the literature review and the data analysis of the questionnaires.

Recommendation 1

Minimum requirements for an EMS manager in EMS: KZN: The minimum requirement for an EMS manager should be both an ALS medical qualification and a managerial qualification. The benefits of an EMS manager with an ALS qualification and a managerial qualification ensures that the manager is adequately equipped from both a medical perspective to manage EMS personnel and EMS related issues and a business perspective in that the manager will be able to understand the policies, regulations and acts that govern EMS and its core business.

Recommendation 2

Strategies to improve the efficiency and effectiveness of future EMS managers:

- Undertake a skills audit to determine how many staff currently meet the requirement for an EMS managers post based on the above recommended minimum requirements.
- Based on the skills audit, the annual performance appraisal and career progression should be aligned to assist ILS and ALS qualified individuals obtain the necessary qualification/s thereby creating a suitable talent pool for future EMS management posts whilst simultaneously creating a culture of learning within the organization.
- EMS: KZN should form a partnership with the Institutes of Higher Learning thereby assisting the staff and managers to obtain a managerial qualification and these training initiatives can be funded via the skills development budget or the training budget.

Recommendation 3

Strategies to implement management training within ems:

- EMS: KZN has its own Provincial training college, the College of Emergency Care (COEC) that is accredited as a Further Education and Training institute. The COEC should develop and customize a managerial training programme that takes into consideration the uniqueness of EMS: KZN and the necessary legislation that govern EMS in South Africa. This training programme should be accredited and aligned to the national qualifications framework thereby ensuring the authenticity and quality of the qualification.
- Regular workshops facilitated by the specialist of that field, for example Human Resource Management, Operations Management and Financial management should be held with the managers to

firstly provide the managers with the information based on the legal and compliance issues of the speciality, secondly the relevance and applicability of the subject matter to EMS must be explored and thirdly the workshop should culminate when suitable strategies having been identified in relation to the implementation and monitoring.

Recommendation 4

Strategies to improve the qualifications of the current management team:

- Undertake a gap analysis to ascertain how many managers currently do not possess an ALS qualification and a managerial qualification.
- EMS: KZN needs to renew their partnership with the Durban University of Technology as this is the only Institution in KZN that is currently offering ALS training. Through this partnership a modularised programme can be tailored to meet the needs of EMS without compromising service delivery.

Recommendation 5

Strategies to improve the effectiveness and efficiency of ems managers leadership skills:

- Managers need to conduct a gap analysis between their current qualifications and the minimum requirements of an ALS qualification and a managerial qualification.
- Using the checklists of Jayasuria [13] of poor management qualities and Hersey et al. [20] managerial attributes to improve effectiveness and efficiency, the managers need to undertake a self-conscious, critical self-assessment of their managerial skills.

Recommendation 6

Strategies to ensure that staff is receptive to the leadership style of ems managers:

- Staff should undertake a self-assessment to determine their own strengths and weaknesses and apply these to the tasks as assigned. When the individual displays knowledge, willingness and ability or the lack thereof, the manager and staff will both know what leadership style, power and actions the manager will utilize to achieve the objectives.
- A staff that is aware of self and his or her motivating factors and needs will know his or her commitment to the organization and will perform based on the motivation to achieve his or her needs. Managers that assist staff in the fulfilment of their needs will allow the staff to develop and grow their skills set and knowledge base thereby improving their performance and ultimately improving organizational effectiveness.
- EMS staff should take an active role in developing their profession. Staff should provide feedback to management and the HPCSA on policies and procedures that affect their ability to perform effectively. This two-way communication with a feedback loop is supported by both democratic and participative leadership styles.

Recommendation 7

Strategies to develop collaborative co-operation between staff and managers to mitigate push factors:

Resource-poor health systems: Both staff and managers should look at current EMS policies that regulate the Norms and Standards of EMS in South Africa. Using the policy information, the identified needs of the Province and the paramedic's scope of practice, management can develop a resource plan that will ensure that these needs are met. This planning requires the manager to be knowledgeable and this knowledge is available through management training. This collaborative initiative is participative leadership.

Deteriorating work environments: Staff need to comply with internal reporting mechanisms regarding defective equipment and facilities, whilst managers need to ensure that the work environment of the staff and organization comply with the Occupational Health and Safety Regulations. Managers will need to enforce disciplinary or corrective measures against staff that disregard the regulations and wilfully damage the employer's property. This symbiotic relationship between staff and management will ensure that the work environment is conducive and safe to harmonious working conditions.

Summary

This study focused on qualifications for managers and leadership within EMS. The world of EMS is exciting, challenging and dynamic. Staff and managers are equally responsible for the success of the organization and to this end, each staff and manager must do their share. Staff must become familiar with the rules and regulations that govern the organization and the profession and take an active role to develop or contribute positively to both. Staff should develop their qualifications such that they can be supportive to the current management whilst simultaneously equipping themselves to be future EMS managers. Managers need to recognize their limitations and then find ways to overcome those limitations. Managers should make it their duty to arm themselves with the proper qualifications so that they can justly execute their duties. Leadership skills should be seen as a tool to strengthen management and staff relations and must be used effectively to gain maximum result. Good leadership skills are an asset to both the staff and management in the execution of their duty.

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