

**ATTITUDES OF DOCTORS WORKING IN EMERGENCY
DEPARTMENTS IN THE GAUTENG AREA TOWARDS
FAMILY WITNESSED RESUSCITATION**

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Declaration

I, Evelyn Dawn Gordon, declare that this research report is my own work. It is being submitted for the degree of Master of Medicine in the branch of Emergency Medicine in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

_____ day of _____, 2010

Abstract

Resuscitation of patients, be it medical or surgical, occurs on a daily basis in the Emergency Department. The resuscitation is usually pressurised and frantic, as a result family members are escorted out of the resuscitation room to a waiting room where they are isolated from the resuscitation. Since the late 1980's the practice of Family Witnessed Resuscitation (FWR) has been explored¹. FWR means that family members are invited into the resuscitation area whilst the medical team is attempting to resuscitate the patient.

This practice has often been suggested but the opinions of medical staff remain varied^{2,3,4}. Resuscitation as discussed in this report is the medical proceedings that occur at a time when a patient presents with a life threatening emergency, be it medical or surgical, to an emergency department and the medical staff are unsuccessful in re-establishing respiratory efforts and cardiac output to maintain life. A review of the literature indicates that FWR is a means of the family gaining closure when the resuscitation is unsuccessful by observing the process of resuscitation and having their family member's last moments clearer and more defined in their memory. The decision of FWR is one that needs to be taken by the family after the invitation has been extended by the medical team leader. There needs to be nursing staff available to be in attendance with the family at all times to answer their questions and explain procedures.

The views of practitioners surveyed on FWR tend to vary, but irrespective there is a recurrent theme regarding the concerns expressed by emergency room doctors towards FWR. These concerns include traumatisation of the family, increased stress

being placed on the medical team to perform while being watched, possible family interference with the resuscitation and the possibility of medico-legal consequences. These concerns are not simply regional but seem to be universal.

This study sampled two groups of doctors:

- Doctors actively working in emergency departments in the Gauteng area in Medi-Clinic and Life Healthcare facilities. These are private healthcare facilities.
- Doctor participants in the University of the Witwatersrand, Faculty of Health Sciences Master in Science in Emergency Medicine programme. These doctors work in emergency departments in both the private and provincial sectors.

This study found that there is not complete acceptance of FWR; 48 out of the 101 doctors in the sample had never considered allowing family to witness resuscitation. Doctor's opinions vary regarding which family members, if any, they would allow to witness resuscitation, at which point in the resuscitation process they would allow family into the resuscitation area and how many family members would be permitted into the resuscitation at any one time. The opinion in this study was that due to space constraints no more than two family members would be allowed in the resuscitation area at any one time.

Training and continued professional development seem to impact positively on the practice of FWR. The attendance at American Heart Association (AHA) courses such as Paediatric Advance Life Support (PALS) and AHA Acute Cardiac Life Support (ACLS) positively influences the doctors' acceptance of FWR. Should death occur

due to the acute life threatening emergency and resuscitation attempts are unsuccessful then FWR assists family in coming to terms with the death of a relative and is seen by the public to make the resuscitation a more humane process.

The literature review and findings of this study concur that FWR is a practice that should be occurring in emergency departments. Some nursing councils have drawn up guidelines and mission statements that will ensure FWR is common place in the Emergency Departments (Appendix 1). If FWR is to become common practice then emergency departments need to be encouraged to draw up protocols and have processes in place that ensure that this process is performed in a way that allows staff to operate efficiently and the family to gain the most they can from a grave situation. The emergency medicine doctor that is in charge of the patient needs to be aware of the protocols and procedures that are in place in order to be able to facilitate FWR. In studies from KwaZulu Natal⁵, Western Cape⁶ and this study from Gauteng show that no unit in South Africa has policies yet.

This study found that although FWR is currently not common practice in emergency departments in the Gauteng area, it is a practice that emergency doctors are willing to encourage in the future. The doctor's attitude toward FWR is influenced positively by attendance at AHA PALS and AHA ACLS courses and the experience of the doctor of working in the emergency department. Doctors do have some concerns about the practice including psychological traumatising of family members, extended length of resuscitation and medico-legal complications. It was found that parents would be the family members that are most likely to be invited by the medical team to witness the resuscitation of a family member and that the doctor would restrict witnesses to

two family members only. It would seem that FWR will start occurring in emergency departments.

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Glossary

RESUSCITATION: The act of attempting to maintain the cardiac output and respiratory effort of a patient. This may utilise drug therapy, physical acts of cardiac massage, ventilation of a patient using a bag-mask ventilator or a mechanical ventilator and possible defibrillation.

FAMILY WITNESSED RESUSCITATION: The presence of the family in the resuscitation room while medical personnel are actively resuscitating a patient.

EMERGENCY DEPARTMENT: A medical facility specialising in the acute care of patients who present without prior appointment, either by their own means or by ambulance.

AHA ACLS: American Heart Association Advanced Cardiac Life Support course

AHA PALS: American Heart Association Pediatric Advanced Life Support Course

AMLS: Advanced Medical Life Support

BEST: University of the Witwatersrand Basic Emergency Skills Training

AIME: University of the Witwatersrand Airway Management Course

DA: College of Medicine of SA Diploma in Anaesthetics

Dip PEC: College of Medicine of SA diploma in primary emergency care

Football Course: University of the Witwatersrand competency in football medicine course

ATLS: Advance Trauma Life Support Course

1 INTRODUCTION

Having to go to an emergency department to receive medical treatment is an experience that is often fraught with stress and concern. If the patient has to be taken into the resuscitation room for treatment the level of concern of attending family members escalates even further. Doctors working in emergency departments need to take cognisance of the fact that a patient is a part of a larger whole. Care of the patient encompasses attending to the patient themselves as well as to the needs of the family who may be present with them.

Emotionally charged situations often occur in the emergency department. The acute resuscitation of a patient, be it due to outcome of a traumatic event or a medical condition is one such example. In the frenzy of activity that is occurring during the resuscitation process when staff are transferring the patient onto the examination bed, monitors are being attached to the patient, doctor is trying to examine the patient to access what further steps need to be taken for care of the patient, family members are often rushed out of the resuscitation room and made to stand outside of the resuscitation room , ignorant of what is happening to their family member and why they were removed from the area.

The fairness of escorting family out of the resuscitation room and not allowing them to witness the proceedings is a question that has been studied ^{3,7,8}. Numerous medical bodies are calling for new policies to be drawn up and procedures listed with regards to this situation.

Family presence involves the attendance of the family member(s) in the resuscitation room where they are afforded visual or physical contact with the patient during as an

example cardiopulmonary resuscitation (CPR) or invasive procedures (IPs) ⁵. However, allowing families to be at the bedside of a family member one during an emergency procedure is currently uncommon in most institutions worldwide ^{3,5,6}.

The literature and current teachings in courses such as the AHA ACLS and AHA PALS encourages the practice of FWR for doctors working in Emergency Departments.^{1,9,10,11,12,13}

Studies have previously been conducted internationally by McLennath *et al*³, Engel *et al*¹⁴ and Compton *et al*¹⁵ and by Goodenough and Brysiewicz in KwaZulu Natal⁵ and in the Western Cape by Isaacs ⁶ looking at the practice of FWR. These have looked at the attitudes and practices of doctors working in various fields of medicine, at nursing staff's attitudes and practices and at patients and their families' views towards FWR.

The following organisations endorse the practice of FWR ; AHA⁸ , Emergency Medical Services for Children, the American College of Emergency Physicians, the American Academy of Pediatrics, Canadian Association of Critical Care Nurses, American Association of Critical Care Nurses and the Emergency Nurses Association^{1,14} and encourage the practice through various educational programmes. Mission statements have been issued by the Resuscitation Council of United Kingdom¹⁶ (Appendix 1) and a joint statement by the European Federation of Critical Care Nursing Association, European Society of Paediatric and Neonatal Intensive Care and European Society of Cardiology Council on Cardiovascular Nursing and Allied Professions^{17,18}.

The earliest documented implementation of FWR family presence during resuscitation was noted in the 1980's². This took place at the Foote Hospital in Jackson, Michigan,

United States of America (USA) where Dr Doyle encouraged family presence at resuscitation. This was initiated after they conducted a survey of 18 family members who had recently lost a family member undergoing CPR. They discovered 72% would have wanted to be their family member's resuscitation.

Currently the opinions of doctors and nursing staff remain varied towards this practice. Nurses are found to be more accepting of the practice and encourage families to witness resuscitation⁷. Doctors are more reserved and have numerous areas that are of concern to them that prevent them inviting family to witness every resuscitation^{2,19}.

The AHA first published the need for family to be invited to witness cardiac pulmonary resuscitation in their 2000 Guidelines⁸. The 2005 American Heart Association guidelines for cardiopulmonary resuscitation and emergency care again highlighted this practice. The AHA encourages family presence at resuscitation and specifically suggests that "healthcare providers should offer the opportunity for FWR when possible". This opinion is included in various courses such as AHA ACLS and AHA PALS, where participants are encouraged to allow FWR during training scenarios.

Numerous factors have been identified as influencing emergency department doctors' opinion towards FWR. These include:

- previous training
- site of current work
- years of experience
- previous experience with resuscitation while the family are present^{8,14,20,21}

The speciality of Emergency Medicine in South Africa was gazetted as a speciality in 2004 and since that time the speciality has developed rapidly. Those doctors active in the practice of Emergency Medicine in emergency departments need to practice in an holistic manner from the moment of initial contact with a patient and their family. Holistic treatment includes

- viewing every patient as an individual,
- taking into account that the patient has family members who care about them and are concerned about the proceedings of the treatment plan,
- and openly communicating with patients and their families.

As an instructor on both AHA ACLS and AHA PALS courses offered in South Africa, the following questions were of interest:

- a) Is FWR currently practiced by emergency doctors working in emergency departments in the Gauteng Area?
- b) What influence has the AHA courses undertaken by emergency doctors working in emergency departments in the Gauteng area had on the practice of FWR?

This research report investigated whether the factors influencing emergency doctors' decisions to include the relatives at a patient's resuscitation and the concerns about the practice of FWR are common to doctors working abroad (as found in the literature review articles) and in Gauteng, South Africa^{2,7,22}.

Questions were incorporated into a questionnaire to investigate the above questions. If emergency doctors working in emergency departments in the Gauteng area in both the

private and provincial sectors were aware of FWR what their concerns towards the practice were.

2 LITERATURE REVIEW

The first experience of FWR is noted at the Foote Hospital in Jackson USA in the 1980's^{1,9}. There have been numerous studies looking at medical staff's opinions towards the process of including family at the resuscitation and future proceedings.

2.1 ATTITUDES OF MEDICAL PERSONNEL

Nursing staff members were far more accepting of this practice⁷. There are mission statements that have been issued by nursing councils around the world including Emergency Medical Services for Children; the Pediatric Advanced Life Support course: The Pediatric Emergency Medicine Resource developed jointly by the American Academy of Pediatrics, Elk Grove Village, Illinois, and the American College of Emergency Physicians, Dallas, Texas; the Emergency Nurses Pediatric Course and the Trauma Nursing Core Course¹. Major endorsements of the practice have been issued by the Canadian Association of Critical Care Nurses, London, Ontario; by the American Association of Critical Care Nurses Aliso Viejo, CA and the Emergency Nurses Association, Des Plaines IL¹⁶. Davidson⁷ conducted a survey for the San Diego chapter of the American Association of Critical Care Nurses. This survey looked at all the positive and negative experiences of nurses who had participated in FWR. Positive experiences included family voicing appreciation, facilitation of the grieving process, better acceptance that all was done, less black humour, death experience was more humane, medical team acted with greater respect, there was bonding between the medical team and the family. Despite nurses having had negative experiences with FWR, 72% of the sample surveyed would recommend

the practice. Negative experiences included medical team distraction, increased staff stress, code inappropriately lengthened. Kissoon² also comments that amongst the nursing profession opinions on FWR are also varied. She² says that opinions tend to differ based on place of work and level of expertise.

When Engel *et al*¹⁴ looked at the attitudes of various staff towards FWR they found technicians of the emergency department of the University of Michigan were the least supportive of the practice. Attendings, residents and nurses were far more supportive of FWR. Compton *et al*¹⁵ also looked at the attitudes of emergency medical technicians and paramedics and found that team members working in urban areas felt threatened by family being present at resuscitation.

Among doctors working in emergency departments there is no universal opinion about FWR. There are ongoing debates for and against FWR.

McClenathan *et al*³ surveyed healthcare professionals at the International Meeting of the American College of Chest Physicians in San Francisco, California, and found that most critical care physicians did not support the practice of FWR. These were senior specialists who perhaps had not been exposed to FWR. The sub-specialities presented in the study are not all physicians that are involved in resuscitation in the emergency departments on a regular basis. Gold *et al*⁴ found in their survey that physicians that primarily look after paediatric cases are more likely to invite family in to witness a resuscitation. The study looked at 50% adult providers and the other half paediatric providers. Kissoon² also comments that critical care professionals not involved in active resuscitation do not support the practice. Barata *et al*²¹ performed a prospective cross-sectional, anonymous

survey of emergency medicine residents in the Accreditation Council for Graduate Medical Education-accredited residency programme in USA and found that the emergency medicine residents found family presence at resuscitation an interfering factor when performing paediatric procedures. This could possibly be due to insecurity of the doctor towards performing the procedure.

2.2 CONCERNS ABOUT FWR

As mentioned previously, concerns that have arisen seem to be repeated in most research articles that were reviewed.

- The family being present at resuscitation of a family member in the emergency department negatively affects the resuscitation team⁸.
- The effects on staff performance seem to be inhibitory.
- Increased staff stress and lack of freedom of staff to discuss the resuscitation has also been a concern⁵.
- Davidson⁷ found the presence of family members in the resuscitation room during the acute resuscitation of a patient distracting for the medical team, stress levels of the medical were increased, the length of the resuscitation was lengthened inappropriately. Having family present in the resuscitation room during the acute resuscitation of a patient influenced the medical team to prolong resuscitation efforts of the patient even if the team was aware that their efforts were not going to be successful in resuscitating the patient.

Kissoon² also makes mention of the increased risk of legal action by the family against the medical team. Walker⁸ found that the most common reason not to include family at resuscitation was the perceived adverse psychological effect that

the resuscitation may have on the family. This concern may be unfounded as family members state that witnessing the resuscitation enable them to speak to the medical team more readily, and they felt their presence was beneficial to the patient⁶.

2.3 AFFECTS OF FWR

Positive aspects of FWR include the initiation of the grieving process for the family of the demised patient with an understanding by the family that all efforts possible were undertaken to save the life of their family member⁸. Davidson's survey also found the positive experiences mentioned by the medical team⁷:

- family appreciation towards the medical team after having witnessed the efforts of the resuscitation
- family grief facilitation initiated by witnessing the progressive deterioration of the patient's vital signs during the resuscitation
- witnessing all the invasive procedures and monitoring that was performed during the resuscitation process
- the death experience was more humane and the family were made to feel part of the resuscitation
- the medical team acted with greater respect towards the patient and the family present in the resuscitation room
- the family were witness to the efforts of the doctor and were aware of who the doctor was, this meant that there was no need for formal introductions after the resuscitation. The breaking of the news was facilitated by the family having witnessed the process as well as having had the resuscitation process explained

to them by the staff member that had been assigned to stand with them during the resuscitation

- the family appeared to feel as though they assisted in the resuscitation process even if on a psychological level only

2.4 WORK EXPERIENCE IN THE EMERGENCY

DEPARTMENT AND FWR

The past experience of the emergency doctor working in the emergency department was found to influence the practice towards FWR. Macy *et al*¹⁹ in their survey of personnel in the emergency departments at two urban and two suburban Midwestern hospitals in the USA found that prior experience with FWR and hospital setting appeared to influence the decision to include family at the resuscitation of a family member. Personnel included physicians, nurses, physician assistants and support staff (security, pastoral care, and social workers). The more exposure the practitioner had to FWR the more likely they would be to repeat the process in the future. However the site of practice was also found to be a factor in the decision process, space availability and the population served by the hospital are contributory factors. Critchell and Marik²³ mention in their literature review that educational programmes and training have been found to positively influence the practice of FWR. They mention that education and training are crucial steps to facilitating emergency department staff members' comfort with and performance of FWR. Macy *et al*¹⁹ state that respondents in their study "would like training on how to incorporate a family member into the emergency department during a resuscitation attempt".

Engel *et al*¹⁴ found that prior experience with FWR had the strongest correlation with future practice. This was supported by Barrata *et al*²¹ who found that emergency medicine residents become more accepting of FWR the further they are in their residency programme. Walker⁸ found the emergency doctor's prior experience with FWR, whether positive or negative, a major factor in future performances. Prior experience makes the emergency doctor more comfortable to have the family in the resuscitation room during the acute resuscitation of a family member.

2.5 THE RESUSCITATION PROCEDURE AND FWR

The actual process of FWR has also been debated. Gold *et al*⁴ found that parents are more readily invited in as witnesses to the acute resuscitation of a family member than other family members. Critchell and Marik²³ suggest that only immediate family be granted access, that the emotional suitability of the witness needs to be established, and there needs to be sufficient staff available to provide support to the family members and to answer questions that may arise. These are suggestions made by the authors but not qualified further. It is highlighted that family members need to be screened by medical staff and not offered admittance to the resuscitation area if they are deemed unfit to cope with what they will witness. Engel *et al*¹⁴ further specify that only two family members should be allowed into the resuscitation area at a time, this limitation is set by staff availability and space restrictions in the resuscitation room .

2.6 FAMILY MEMBERS' ATTITUDES TOWARDS FWR

Family attitudes towards FWR have also been studied. Mazar *et al*²⁰ conducted telephonic interviews of the public within the Memorial Centre's service area in Pennsylvania. Participants were asked 5 questions:-

- a) "I believe family members or friends have the right to be present in the room while a loved one is undergoing CPR."
- b) "I would want to be in the room with a loved one during CPR"
- c) "I would want family members or friends with me if I were undergoing CPR"
- d) "The presence of family members or friends during CPR would benefit the patient"
- e) "The presence of family members or friends during CPR would benefit the family members or friends"

They found that 49,3% of the public desire to be present at the resuscitation of a family member. They also expressed the desire to have family present at the resuscitation should they be the patient. Mazar *et al*²⁰ to suggest that formal programs be put in place in Emergency Departments to accommodate those members of the public who wish to be present with their family member in the resuscitation room at the time of resuscitation so as to be able to accommodate members of the public who wish to witness the acute resuscitation of a family member.

Holzhauser *et al*¹¹ performed randomised controlled trials in the emergency departments of a tertiary teaching hospital in Queensland, Australia. Family members were randomly assigned to either witness resuscitation or not. The

participants were later questioned on their experience and the perceived benefits or lack thereof. 43% of the included family preferred to present and 67% of the control group would have liked to be present. 100% of the family members that were present at the acute resuscitation of their family member were glad that they had witnessed the resuscitation. 96% of the family allowed to witness the acute resuscitation of their family member felt that their presence had assisted them in coming to terms with the patient's outcome. 71,2% of the control group felt that their presence in the resuscitation room would have helped them to cope better with the outcome. Critchell and Marik²³ found that family gained understanding of the resuscitation process, a sense of closure for the loss of their loved one, humanization of the patient and facilitation of the grieving process to be benefits gained from witnessing the resuscitation. The conclusion can be drawn that family have a positive attitude towards witnessing the acute resuscitation of a family member in the resuscitation room of an emergency department. Booth *et al*¹² comment "that observing the resuscitation is no worse than imagining what might be happening when you are excluded from the resuscitation."

Guztetta *et al*¹ reviewed various studies investigating the effects of family presence during cardiopulmonary resuscitation and invasive procedures on family members, patients themselves and medical personnel. Survivors of resuscitation who were aware of family presence during the resuscitation commented that they found the presence of family members beneficial during the resuscitation.

2.7 THE INCLUSION OF FWR AS A STANDARD

PROCEDURE IN THE EMERGENCY DEPARTMENT

The results of the research done by numerous people have led to the call for the drawing up of protocols for the inclusion of family at the resuscitation ^{1,2,10,23}. Guzzetta *et al*¹ also call for protocols and educational programmes to be drawn up based on evidenced-based practice to promote quality patient care. Established protocols and procedures are seen as part of the facilitation process of FWR and also a method of alleviating some of the stress on the medical team when FWR occurs. Critchell and Marik²³ provide more specific recommendations on the protocols that need to be instituted. Engel *et al*¹⁴ conclude that because most of the providers in their study indicated support for FWR there is a need for development and implementation of policies for family to be present at resuscitation.

Maurice¹⁰ presented a proposed guideline for FWR at the Canterbury Hospital, Sydney, Australia, because having guidelines in place to facilitate FWR is seen as a tool which could alleviate staff stress [Appendix 6]. Kissoon² also calls for the establishment of protocols and training modules for inclusion of family at the resuscitation process. The Royal College of Nursing has issued guidelines on FWR. These guidelines indicate a clear need for the practice and its use as a teaching tool for Nurses to facilitate the practice²⁴. Booth *et al*¹² found that in the UK the emergency departments expect the family to request access to the resuscitation. “Many may not realize that this is an option and so miss the opportunity”. Duran *et al*²² comment that as the practice of family presence at

resuscitation becomes more accepted, emergency doctors will have to make provisions for allowing family into the resuscitation room during an acute resuscitation of a patient to witness the resuscitation procedure.

Despite extensive literature and research, FWR remains a hotly debated topic. It seems in general that the benefits of FWR have been well documented, and the fears of the medical teams have been in general unfounded.

3 MATERIAL AND METHODS

3.1 AIMS AND OBJECTIVES

AIM

To document current reported practices and the attitudes towards the procedure of family presence at resuscitation by doctors active in emergency departments in the Gauteng area.

SPECIFIC OBJECTIVES

- 1) To assess the attitudes of emergency doctors working in emergency departments towards family presence at resuscitation.
- 2) To determine the extent to which emergency doctors currently working in emergency departments in the Gauteng area reportedly practice FWR.
- 3) To determine the awareness of emergency doctors of the practice of FWR
- 4) To assess perceived advantages and disadvantages of this practice by doctors currently working in emergency departments in the Gauteng Area.

3.2 METHODS

3.2.1 DESIGN

This is a cross sectional, descriptive study using a questionnaire.

3.2.2 STUDY POPULATION

The questionnaire was distributed to two groups of doctors. The first group was doctors currently working in emergency departments that operate out of private healthcare facilities in Gauteng. The second group consisted of doctors who are post graduate students sitting for the degree of Master of Science in Medicine in the division of Emergency Medicine in the Faculty of Health Sciences of the University of the Witwatersrand. The second group of doctors work in both provincial and private emergency departments.

Emergency department doctors are the individuals who practice clinical medicine in the emergency department and are frequently exposed to the active resuscitation of acutely ill patients. The size of the study population was 101 doctors.

3.2.3 SAMPLING

The primary concern was to determine the extent to which FWR is practiced. The conservative route of sample size determination assumes an expected proportion that practice FWR of 50%, in which case the sample size of 101 practitioners estimates the required proportion to within an accuracy of 10% with a 95% confidence.

The sample size was determined by the voluntary responses received by doctors working in emergency departments in the Gauteng area.

3.2.4 MEASUREMENT

A cross sectional descriptive study design is used.

The questionnaire was developed based on themes evident in the literature review. Common themes were included and the additional questions were added to include current practices of doctors working in the emergency departments. Questions were included to assess further educational courses that doctors had attended. Qualitative and quantitative aspects of the questionnaire were analysed. (Appendices 2 and 3)

Questions included the basic demographics of the doctor. There were questions that determined whether the doctor was aware of the practice of FWR. If the practitioner was aware of allowing family to witness resuscitation then the questionnaire went on to further define how often the practice is followed through and what the positive and negative consequences of such a practice were perceived to be. The research report's primary aim was to determine how often FWR was practiced and what the attitudes of emergency doctors working in emergency departments were towards having family present in the resuscitation room at the time of active resuscitation of a patient.

A pilot study was conducted amongst the doctors working in the emergency department of Life Healthcare Bedford Gardens Private Hospital in order to validate the questionnaire. This unit was selected as the researcher is the Doctor Manager of the unit. Fifteen doctors were utilised in the pilot study. The response rate of the pilot group was 80%. 86% of the doctors working

at this emergency department were aware of FWR. 47% of the respondents were female and the rest male. 53% had allowed FWR to be practiced while they were on duty, although this is not common practice to actively invite family members into the resuscitation room. The family member most often allowed to witness the acute resuscitation of a patient would be the patient's spouse or partner and the next group would be parents. The comment was made that sufficient staff need to be available at the resuscitation. Senior doctor or nursing staff member was seen to be the decision makers in allowing family into the resuscitation room. The data from these questionnaires was not included in the study. Based on the pilot study nothing was changed and the questionnaire was utilised.

3.2.5 DATA COLLECTION

Permission was obtained from clinical heads of both Medi-Clinic and Life Healthcare hospital groups for distribution of the questionnaires in their emergency departments and from Professor Kramer of Emergency Medicine Division of the Faculty of Health Sciences of the University of the Witwatersrand for distribution of the questionnaire at the lectures.

In the private facilities numbered questionnaires with envelopes in which to place completed questionnaires were delivered to the doctor manager at emergency departments. Doctor managers of the emergency departments where the study was conducted were briefed on the details of the study and requested to distribute questionnaires to all doctors working in their department who actively participate in acute resuscitation of patients.

Weekly phone calls were made to doctor managers to remind them about distribution of questionnaires. A sealed box to collect the envelopes was left at each participating unit. The sealed collection boxes placed at each emergency department were emptied on a weekly basis from the departments over a three month period.

Numbered questionnaires with envelopes to place completed questionnaires were distributed at the MSc Med Emergency Medicine academic Sunday session series. The questionnaire was distributed at three various MSC Med activities: Sunday lecture session, football course and Basic Emergency Skills Training (BEST) course. A sealed box for collection of the envelopes was made available at the door of each lecture theatre for collection at the end of the teaching session .

There were 176 questionnaires distributed to the two groups of practitioners. The questionnaires were numbered to allow for record keeping of which questionnaires had been distributed and collected, there was no correlation between the questionnaire number and the doctor. Questionnaires were anonymous.

The researcher collated all data alone. No other individual had access to the completed questionnaires. Collation of the data revealed no duplication of any demographic details. There were no two sets of answers that were identical. Although these two facts do not entirely exclude that one doctor completed more than one questionnaire, it is unlikely that there were duplicate questionnaires completed.

The complete questionnaires will be kept in a safe for a period of five years.

3.2.6 SOURCES OF BIAS

- 1) The response rate may reflect an expected performance rate rather than the actual practice occurring. Participants may have felt obliged to respond that they had participated in FWR.
- 2) The doctor may have felt it necessary to admit their awareness of FWR if they were working in the emergency department.
- 3) Sample size was dependant on the number of doctors working in the emergency departments at the time of questionnaire distribution.

3.3 ETHICAL APPROVAL

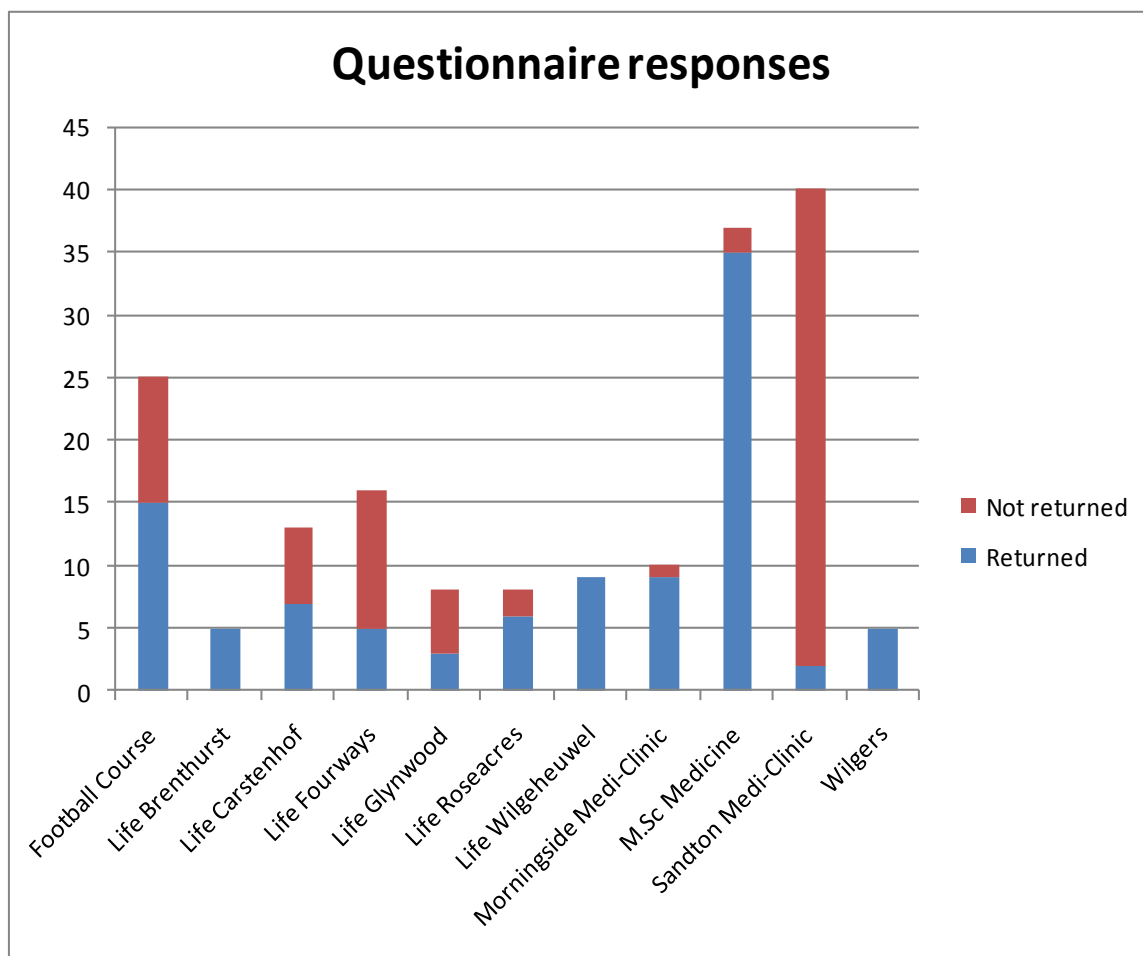
Approval to conduct the research was requested from the Human Research and Ethics Committee of the University of the Witwatersrand, Johannesburg. The research proposal was submitted and was approved without alteration. (M080803 Appendix 4)

An information letter about the study was handed to each of the private hospital groups that have Emergency Departments in the Gauteng area; Life Healthcare, Netcare and Medi-Clinic. Permission was granted by both Life Healthcare and Medi-clinic Head Offices to conduct the study in their hospital's Emergency Departments. When no written consent was received telephonic follow up was conducted, approval was received telephonically by Dr W Sive of Life Healthcare and Dr S Smuts at Medi- Clinic.

4 RESULTS

4.1 RESPONSES

Response rates varied dramatically from the different emergency departments and course participants (Graph 1). There were 101 replies from the 176 questionnaires distributed. The sample size was therefore 101 doctors.

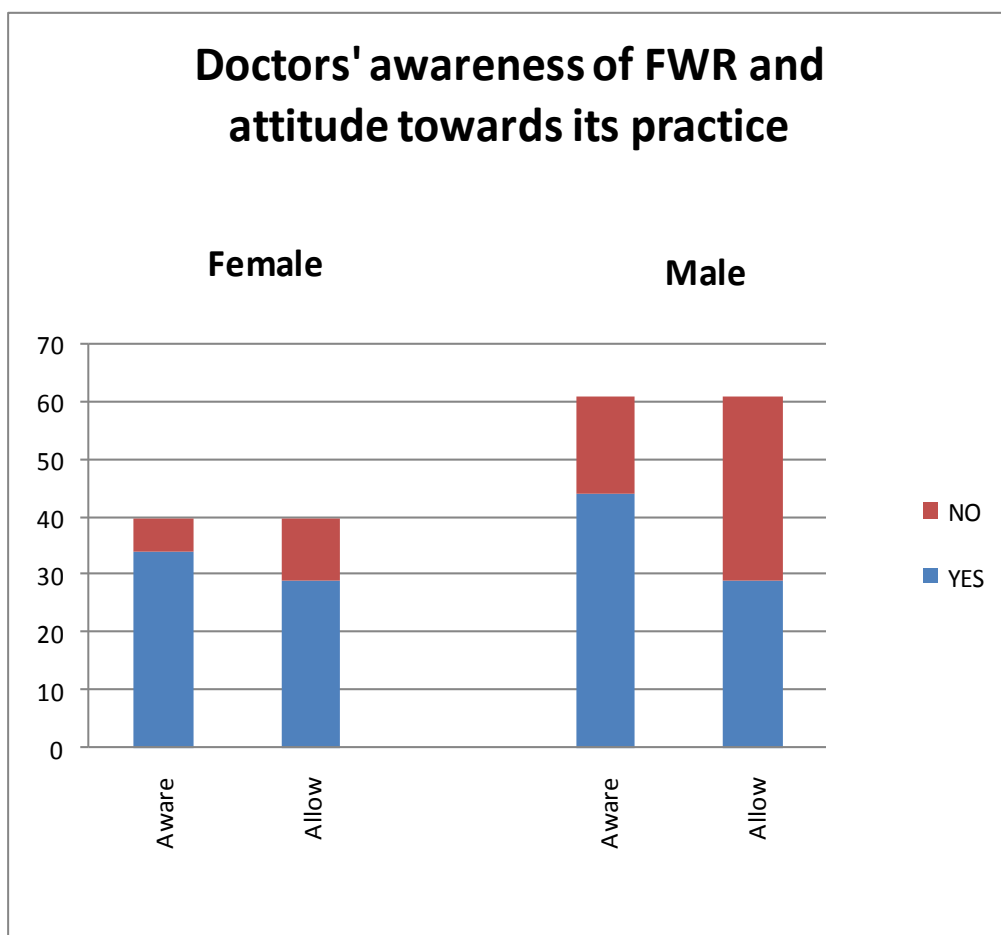


Graph 1 - Questionnaire responses by location

4.2 DEMOGRAPHICS

Of the 101 replies received there were 40 females and 61 males.

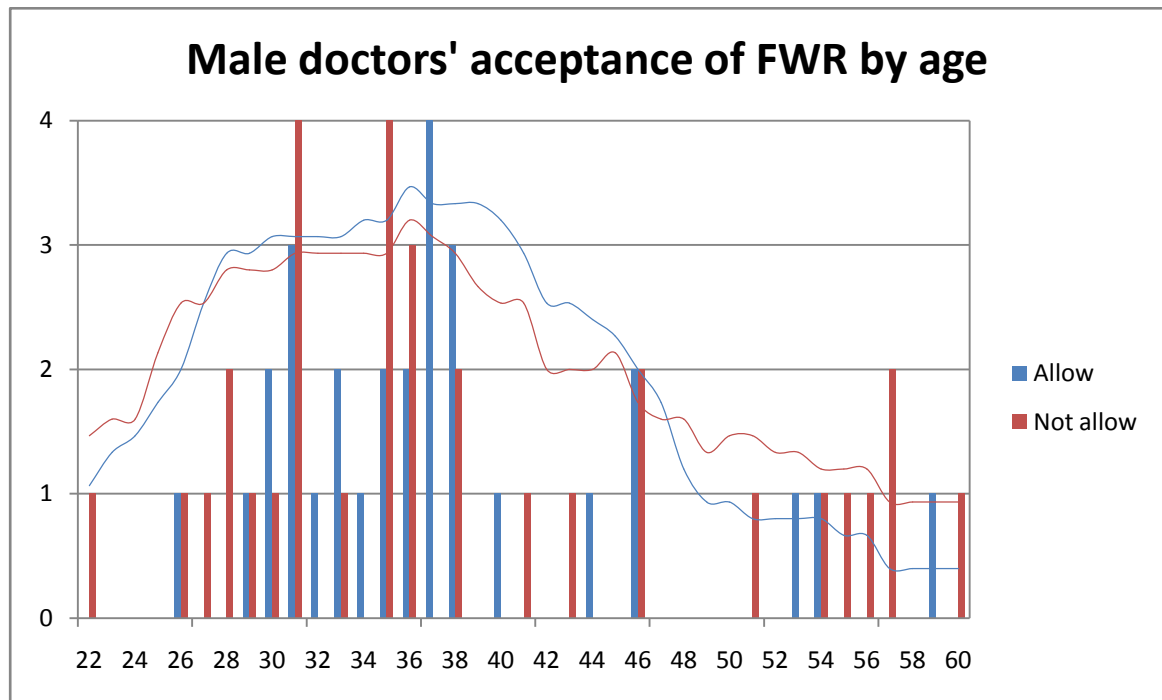
Of the female doctors who responded 85% were aware of FWR. 80% of the male population were aware of FWR. 72% of the female doctors would allow FWR as opposed to 47,5% of the male doctors allowing the practice (Graph 2).



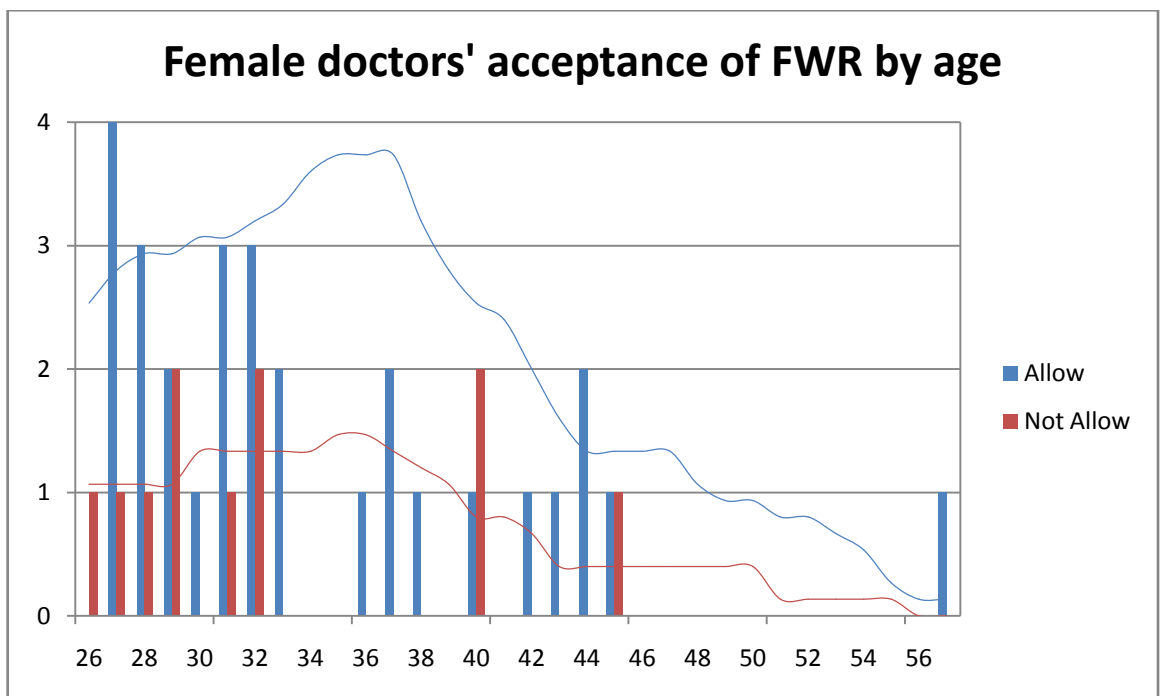
Graph 2 – Doctor's awareness and practice of FWR by gender

The mean age of the doctors surveyed was 36,6years, with the age range being from 26 – 59 years old. The female population had an average age of 33,4years. The male population was slightly older at an average age of 38,1 years.

In comparing age and sex of the doctor and the practice of FWR it was found that older male doctors do not practice FWR. The average age of the male doctors not allowing FWR was 38,9years. Whereas the average age of the male doctors allowing FWR was 37,4years. In the female population the relationship was reversed with the younger females not allowing FWR. The average age of females allowing FWR was 34,3 years as opposed to those females not allowing FWR having an average age of 32,6 years. (Graphs 3 and 4)



Graph 3 - Acceptance of FWR by male doctors according to age of doctor



Graph 4 - Acceptance of FWR by female doctors according to age of doctor

4.3 WORK EXPERIENCE AND FWR

The doctors who participated were found to have worked in the Emergency Department environment for various lengths of time. Two doctors had only been involved in Emergency Medicine for less than a year. The most experienced doctors had been working in the Emergency Department for 30 years. There was an average of 5 years experience in this group.

Of the 101 doctors in the sample 43 doctors had never allowed family to witness resuscitation and 58 (57%) of doctors had allowed the practice of FWR. Of the 58 doctors who had allowed FWR there were 29 females and 29 males. 72,5% of the females in the study population would allow FWR. 47,5% of the males would allow FWR.

Using the Wilcoxon rank-sum (Mann-Whitney) test indicates the probability of inviting family to witness the resuscitation increases with the experience of the doctor. The doctors who indicated that they would invite family into the resuscitation had worked in Accident and Emergency Units from 1 – 30 years. The majority had less than 10 years experience with a few doctors having worked in emergency departments for 15, 20, 25 and thirty years. The doctors that would not invite family all had less than 20 years experience in emergency departments. (Figure 1)

The number of resuscitation performed by a doctor on a weekly basis does not influence the practice of FWR. (Graph 5)

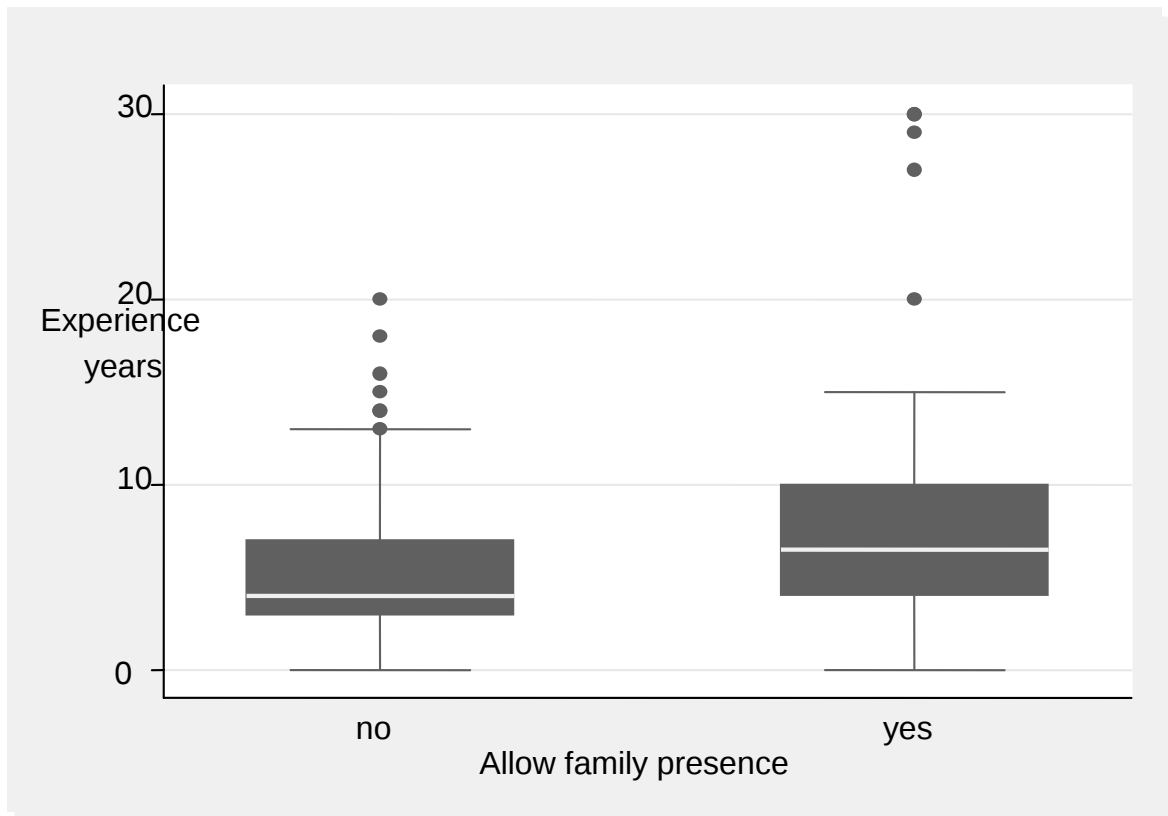
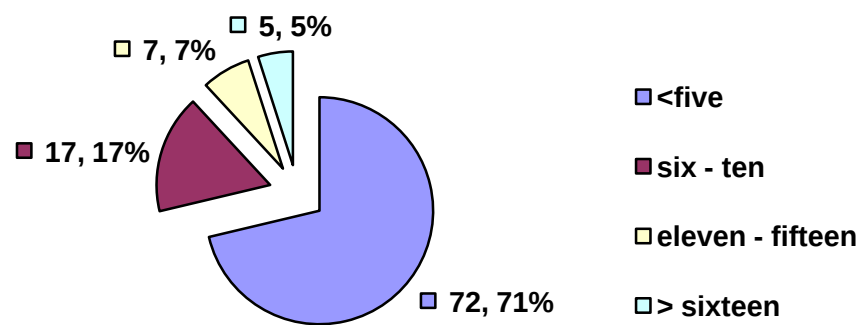


Figure 1 - Distribution of FWR in relation to the experience of the practitioner (no. of years)



Graph 5 - Number of resuscitations performed per week

4.4 EDUCATIONAL TRAINING AND FWR

Post graduate Emergency Medicine courses do influence a doctor's practice. During course participation a doctor is exposed to the concept of FWR. Practice scenarios during course participation have a positive influence on practice (Table 1,2,3).

	Practice FWR (%)	
Course Completed	Yes	No
Yes	91.38	8.62
No	23.26	76.74

Table 1- Relationship between ACLS course attendance and the percentage of doctors who practice FWR

(n = 101)

	Practice FWR (%)	
Course Completed	Yes	No
Yes	78.95	21.05
No	55.81	44.19

Table 2 - Relationship between PALS course attendance and the percentage of doctors who practice FWR

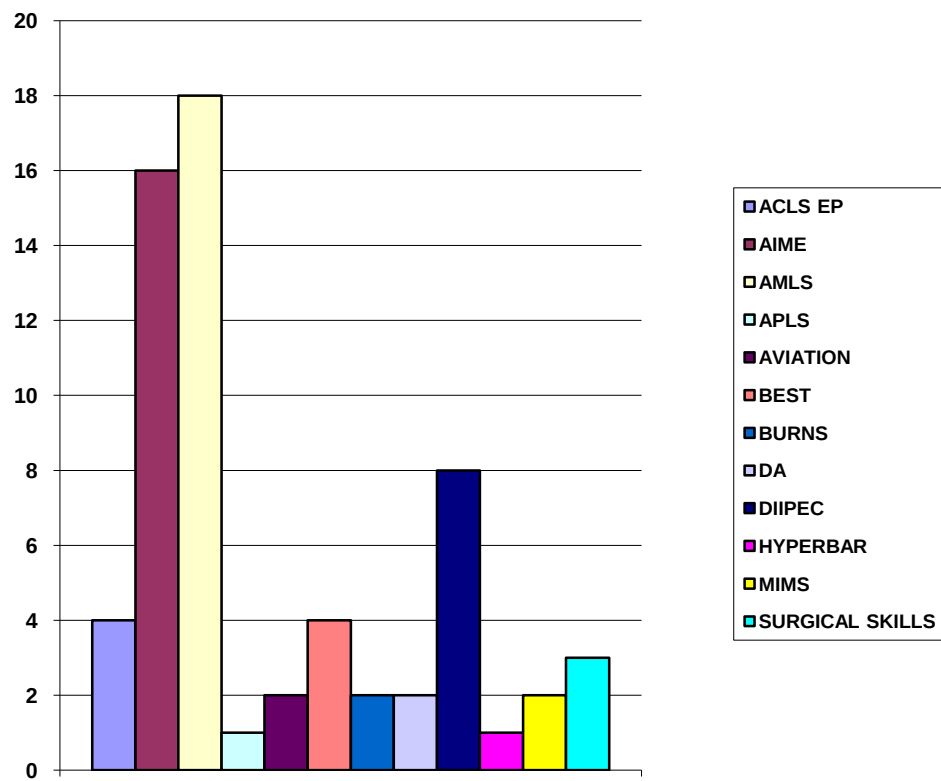
(n = 101)

Course Completed	Practice FWR (%)	
	Yes	No
Yes	84.48	15.52
No	69.77	30.23

Table 3 - Relationship between ATLS course attendance and the percentage of doctors who practice FWR

(n = 101)

There are several other courses that doctors had attended. All of these are associated with an emergency medicine topic. The influence of these courses on the practice of FWR was not investigated. (Graph 6)



Graph 6 - Number of doctor participants in emergency medicine courses

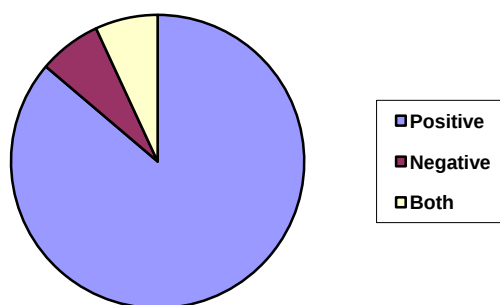
4.5 THE RESUSCITATION PROCEDURE

Doctors were questioned as to which family members they would allow in to witness the resuscitation. The doctors in this study indicated that parents and the spouse or partner of a patient would be the family members that they would preferentially permit to witness the resuscitation.

	Never	Occasionally	Often/Always
Parents	10	44	45
Sibling	23	51	23
Spouse/partner	9	48	42
Child	47	38	13
Grandparents	37	47	13

Table 4 - Division of family members invited to witness resuscitation

Family comments back to the doctor were minimal. But of the 29 comments that were received 86% were positive.



Graph 7 - Family comments about having experienced FWR

4.6 FACTORS AFFECTING DOCTOR'S DECISIONS

The fears of inviting family into the resuscitation area were highlighted. Areas of concern that cause the negative connotation of FWR were:

- a) Seventy two percent of the doctors stated that traumatising of the family was a major fear.
- b) Seventy one percent of the doctors felt that there was an increased level of difficulty terminating the resuscitation if the family was in the resuscitation room.
- c) Sixty percent of the doctors felt that family presence affected the cohesive working of the medical team.
- d) Fifty two percent of the doctors were afraid of personal intimidation.
- e) Fifty eight percent of the doctors felt that patient's privacy would be invaded.

4.7 OTHER COMMENTS

Open ended questions allowed participants to add any additional comments that they felt relevant to the study. A summary of recurring comments:

- A doctor's personality would affect the way they conduct the resuscitation in front of witnesses.
- Whether the resuscitation was medical or trauma influenced decisions.
- It is not appropriate to include family at the resuscitation of a badly disfigured patient.

- Having adequate staff in the unit to assist with the resuscitation process and to have a staff member dedicated to being with the family members is vital.
- Medical personnel need to be able to explain the resuscitation process to the family, to answer questions that the relatives may have and to provide emotional support to the family.
- There must be adequate space available within the resuscitation room to accommodate the family.
- There needs to be specific, separate spaces for the medical team and the family so that family do not get bumped or come into contact with medical equipment. This will ensure that there are no injuries or unnecessary exposure to medical waste.
- One respondent made the comment that the correct identity of the patient should be obtained prior to allowing family access to the Resuscitation Room.

5 **DISCUSSION**

Since Doyle at the Foote Hospital in Jackson Michigan USA began allowing family to witness resuscitation of a family member in the 1980s³, the positive feedback from surveys obtained by participants in the experience spurred further enquiry into the phenomenon of FWR²⁵.

5.1 **ATTITUDES OF DIFFERENT MEDICAL PERSONNEL TOWARDS FWR**

Nursing staff internationally have been far more accepting of FWR than doctors. Numerous nursing bodies such as the Emergency Nurses Association, the American Association of Critical Care Nurses, the Royal College of Nursing and the European Federation of Critical Care Nursing Association readily endorse the practice^{1,7,18,24}. Davidson⁷ shows that the majority of the nurses in her study would recommend FWR. Goodenough and Brysiewicz⁵ interviewed nurses in Kwazulu Natal that had not been exposed to FWR, but would consider it in the future. This report did not investigate the attitudes of nursing staff.

The practice of FWR has been debated and it is not a practice that is readily accepted by all doctors. This study found that 53% of the doctors working in emergency departments in Gauteng in both the private and provincial sectors were in favour of FWR. 85% of the female doctors were aware of FWR and only 72% of the male doctors. From a gender point of view female doctors were more likely than the males to practice FWR with the ratios showing 72% of females allowing the practice and only 47,5% of the male doctors allowing FWR. (Graph 2)

There was an age difference between the two groups of doctors with the female's being younger and having an average age of 33,4 years and the males an average of 38,1 years. The age of the doctor did have an influence on the practice of FWR. female doctors started practicing FWR at a later age than the males. The average of the females not allowing FWR was 32,6 years whereas those that would allow FWR was 34,3 years. The males started allowing FWR at a younger age but on getting older they did not allow FWR. These findings may reflect that male emergency doctors gain confidence with being observed while working at an earlier age. The peak in practice of FWR is in the late 30's. At this age the doctor may have gained experience, confidence and maturity. The combination of these three may allow FWR in that the doctor feels that they know what is expected of them and how to cope with the treatment of a patient in the emergency room. The older male doctors may have never been exposed to FWR in their training and it is not a practice that they readily undertake.

5.2 CURRENT PRACTICES AMONG DOCTORS WORKING IN EMERGENCY DEPARTMENTS

Interestingly, 43/101 (42.6%) of practitioners who completed the questionnaire had never considered inviting family to witness the resuscitation. However 65% of these doctors indicated that having been made aware of the practice of FWR, they would in future invite family to witness the resuscitation of a relative. This was also found to be the case in Kwazulu Natal where Goodenough and Brysiewicz⁶ found that once the practice was introduced to the doctors and

nursing staff interviewed they were more willing to consider inviting family into the resuscitation room.

The findings of the study indicate that as doctors spend more time working in the emergency department they become more comfortable to allow family to witness the resuscitation. The more experience a doctor had in working in an emergency department the more likely they were to invite family in to the resuscitation room to witness the acute resuscitation of a family member. In this study the doctors that would invite family into the resuscitation area had been working in the emergency department for periods ranging from one to thirty years. Barata *et al*²¹ also found that as the doctor becomes more experienced they become more likely to invite family in to witness a resuscitation. The longer a doctor works in the emergency department the more comfortable they become with the processes in the department and they gain more exposure to the resuscitation environment. By having an understanding of how the resuscitation will run the doctor is more comfortable to invite the family to witness the resuscitation of a family member as the doctor is aware of what the likely events of the resuscitation will be. Experience in the emergency department is not synonymous with the age of the doctor. Some doctors graduate and start practicing in emergency departments immediately; others initiate their practice in another branch of medicine and then at a later stage find themselves working in the emergency department. (Figure 2)

The number of resuscitations performed on a weekly basis did not seem to influence the practice of FWR. 80% of doctors that performed > 16 resuscitations per week would not allow FWR. 65% of doctors that perform <5 resuscitations per week would allow FWR (Graph 5).

5.3 MEDICAL TRAINING AND FWR

The training received by a doctor has an influence on their practice. 91,3% of doctors that had completed an AHA ACLS course would allow FWR. 79% of doctors that had completed an AHA PALS course would allow FWR. These courses actively promote FWR in their course material and include FWR in practice scenarios. Participation in these courses and exposure to FWR allows the doctor to become aware of FWR and also to get a feel for the practice during scenarios. The practice of FWR during training scenarios and reinforcement of this practice positively affect a doctors' performance in the emergency department. The familiarity with the practice of FWR would seem to encourage its practice in the work environment. (Tables 1 and 2). AHA encouraged FWR from the publication of its guidelines in 2000 and again in 2005¹³. From the data even attendance at ATLS had an impact on the practice of FWR. 84% of doctors that had attended ATLS practice FWR (Table 3). FWR is not taught in ATLS but perhaps doctors gain confidence in the skill of resuscitation during this course that allows them to permit FWR. Critchell and Marik²³ found that educational programmes and training facilitate the practice of FWR.

The influence that other courses may have on practice of FWR was not investigated in this study. Doctors that answered questionnaires had also attended BEST, AIME, Diploma in Primary Emergency Care, ACLS Experienced Provider Courses and Master in Science in Emergency Medicine. Perhaps the influence of these courses would be the basis of another research report (Graph 6).

5.4 THE RESUSCITATION PROCESS

This study also looked at the proceedings that occur currently in Gauteng when family are invited into the resuscitation room. It was found that in cases where FWR was practised parents and a spouse/partner. Parents were reportedly allowed into the resuscitation room 45% of the time. Spouse/partner were included 42% of the time. Other family members including siblings, children and grandparents were included less than 23% of the time (Table 4). This is consistent with the findings of Gold *et al*⁴. 47/ 101 doctors commented that they would never allow children to witness the resuscitation of a parent. The response to this question could possibly have had different answers if the age of the child had been included as a parameter in the questionnaire. It may have been assumed that by child the question referred to young children, whereas it was intended to mean a child irrespective of age. The age of the patient did not seem to be a variable in this study. Doctors in the Gauteng area were found to be consistent and would include family at the resuscitation of any patient be they adult or paediatric. Gold *et al*⁴ found in their study of doctors on the mailing lists of the American Academy of Paediatrics section on Critical Care, the section of Emergency Medicine and the list of American College of Emergency Physicians, that doctors are more likely to include family at the resuscitation of a child. However this conference was for doctors that work with paediatric patients.

5.5 DOCTORS' CONCERNS ABOUT FWR

The arguments against inviting family to witness resuscitation are based on several concerns. There seems to be recurrent themes in the concerns and the

same concerns are quoted repeatedly in International and National literature^{2,5,6,10,12}. This study found the concerns of the doctors working in emergency departments in Gauteng in both the private and provincial sectors to be:

- Sixty percent (61/101) of the doctors were concerned that the cohesiveness of the medical team will be affected by witnesses. The medical team is aware of the family in the resuscitation room and the interaction between staff members is more stayed.
- Fifty two percent (53/101) of the doctors felt that there is an increase in the pressure placed on the them by having to perform the resuscitation in front of family members. The doctor feels that they are being adjudicated by the family on their performance of all skills required during the resuscitation. Performance anxiety may prevent them from being as proficient as they normally would be.
- Eighty percent (81/101) doctors found increased difficulty in terminating the resuscitation and that the resuscitation is prolonged even once the medical team is aware that resuscitation efforts are no longer of any benefit to the patient. Even though the medical team realises that their further efforts are futile they prolong efforts to a time frame that they think would be acceptable to the family members present in the resuscitation room.
- Seventy two percent (73/101) of the doctors in the report were concerned that the scene witnessed by the relatives may be traumatic for them from both the emotional and psychological perspectives. The performance of life saving measures may at times appear harmful to the untrained person. There are

some upsetting smells that may be experienced during the resuscitation be it excreta, the smell of haemolysed blood or burnt flesh. The patient may moan or cry out.

- The increased chance of medico-legal action being undertaken by the family^{2,10,12}. Seventy one percent (72/101) of doctors in this report found this to be a worry. Although Booth *et al*¹⁰ found litigation to be uncommon in the Emergency Departments of the UK where FWR is common practice.
- The availability of adequate space to accommodate more people in the resuscitation room is a concern that was raised by a 7 of the doctors in the study in both the private and the provincial sectors. The number of medical staff available to participate in the resuscitation will also affect space restrictions. Walker⁸ states that the lack of adequate space in the resuscitation room is a concern.
- Availability of staff in attendance with the family to answer questions and explain procedures was highlighted as a short coming in facilities in the Gauteng area. All emergency departments have strict staffing budgets and perhaps because of this there are inadequate senior staff available to accompany the family members. As mentioned by Engel *et al*¹⁴ it is a necessity to have a staff member with the family at the time of resuscitation. The staff member assigned to accompany the family is responsible for commentating on the resuscitation and explaining to the family what is happening, they are available to answer questions posed by the family as they arise, the staff member will ensure that the family do not interfere with the resuscitation and that emotionally the family are not too affected by the scene

they are witnessing. Assuming the faculties of this role a senior staff member needs to be assigned to accompany the family.

5.6 THE BENEFITS OF FWR

Despite the fears expressed by emergency doctors they acknowledge that there is an advantage to the practice of FWR. Witnessing the resuscitation assists family in the grieving process. In research carried out on surviving family members, they were found to have an easier grieving process after having witnessed the resuscitation efforts. The doctors in the Gauteng area commented on family expressing their gratitude after having witnessed the resuscitation. Another comment made was that family see all the effort and procedures that have been undertaken and are more comfortable to accept the passing of their relative. Doctors were asked about the feedback that they had received from family members that had witnessed resuscitation. There were 29 doctors that had received feedback, of these comments 25/29 were positive. (Graph 7)

Maurice¹⁰ has suggested that FWR allows the practitioner to view the patient in a more holistic manner. The patient is seen as being part of a family and having people about that care what the outcome of the resuscitation is. Davidson⁷ found that the families felt the death experience to be more humane when family had been in attendance in the patient's final moments. Similar comments are made by Davidson⁷, Critchell and Marik²³ and Walker⁸. Holzhauser *et al*¹¹ comment that family felt more comfortable with the outcome and also commented that they felt

a relationship had been forged with the doctor and they were able to discuss the matter with the team.

Research findings are that the inclusion of family should not be a decision made solely by the doctor but rather an invitation extended to the family. If the relatives wish to they should be given the opportunity to witness the resuscitation. Mazar *et al*²⁰ comment that it is the public's right to witness the resuscitation of a relative. Kissoon² writes that inclusion of the family should be a voluntary act. Resuscitation is an emotionally charged event and if the family have elected to be included in the process it helps them gain an understanding of the outcome of the event. In South African law if the doctor is seen to be acting for the good of the patient they can exclude family from resuscitation, according to the National Health Act Section 14 and 15 the health care professional is legally obliged to protect the medical and personal information of the patient as private. The doctors participating in this study commented that if a patient is badly disfigured or injuries are particularly gruesome, the family should not be allowed into the resuscitation area. The view of a disfigured patient is deemed as being too traumatic for relatives.

This study does have certain limitations that must be kept in mind. It looks at the reported practice of FWR and not the actual performance of FWR. Doctors may have felt obliged to respond positively because they had been made aware of such a practice. There is a possibility of overlap between the two groups of doctors, however when all data was tabulated there were no two sets of data that were identical. The researcher therefore concluded that individuals had not completed

more than one questionnaire. There was overlap between the two groups and FWR is reportedly practiced in both doctor groups.

5.7 **A CHANGE IN PROCEDURE**

The findings of this study have led to a change at the Life Healthcare Bedford Gardens Emergency Department. There used to be a sign outside the resuscitation area that read

NO FAMILY MEMBERS ALLOWED IN DURING RESUS. DOCTORS, NURSING STAFF AND EMS ONLY!!!!

Currently the sign has been changed and now reads:

THIS PRACTICE ALLOWS FAMILY WITNESSED RESUSCITATION Family members will be allowed to be in the resuscitation room during the resuscitation of a patient. SHOULD YOU WISH TO BE IN THE RESUSCITATION ROOM PLEASE INFORM A NURSING STAFF MEMBER OF YOUR DECISION. THE DOCTOR WILL THEN BE AWARE OF YOUR REQUEST.
--

If all emergency departments would start by displaying notices such as this then the resuscitation becomes a more humane process from the very beginning of the family's experience in the emergency department. The need for protocols to

facilitate FWR would thereby increase and the practice of FWR would become more common place and acceptable.

6 CONCLUSION

The questionnaire that was distributed to doctors actively working in emergency departments in the Gauteng area in both the private and provincial sectors showed, as do other international surveys, that attitudes towards FWR are not shared by all doctors and thoughts and feelings towards this practice are varied. A doctor's work experience in the emergency department does have an impact on whether a doctor permits the family to witness the resuscitation process or not. The female doctor is more ready to practice FWR but at an older age than their male counterparts. Males practice FWR at an earlier age but when they get older they are not as keen to allow FWR. Once an emergency doctor has been made aware of FWR they are more likely to consider inclusion of family at the resuscitation.

The longer a doctor has worked in the emergency department environment, the more at ease they are to allow FWR. Evidence shows that having participated in an AHA ACLS or AHA PALS course does affect whether FWR is practiced by an emergency doctor. The teaching of FWR in these courses and the practicing of FWR during case scenarios does make doctors more comfortable to allow FWR in the resuscitation room during the acute resuscitation of an acutely ill patient. Continued education and development are required by practitioners working in emergency departments. The effects of other courses on a doctor's practice has not been assessed in this research report.

A positive outcome of FWR is that family members are afforded the opportunity of witnessing the last moments of one of its members' lives. The family are made to feel an integral part of the team, they gain understanding into the last moments of the

family member's life and begin their grieving process with the knowledge that everything possible was attempted to save the life of their family member. The medical team cannot save every patient but they can perform the resuscitation in the most holistic way possible.

There are no known protocols on FWR in South Africa. The starting point for the successful implementation of FWR in emergency departments, and a recommendation from this study, would be the issuing of protocols by Emergency Medicine Society of South Africa (EMMSA), Emergency Nursing Society of South Africa (ENSSA) and the Resuscitation Council of South Africa. There would then be a platform from which to launch FWR in South Africa.

There is a need for further research on this topic. The public's attitudes towards FWR need to be assessed. The effects of FWR on both the family members that have witnessed the resuscitation and the medical team who performed the resuscitation could be studied.

For the implementation of FWR in emergency departments to be successful there needs to be establishment of protocols. There needs to be the establishment of training programmes that can be implemented and introduced in the undergraduate and post graduate training of emergency medicine staff. Policies and procedures need to be developed to allow the practice of FWR in all emergency departments on a regular basis. Criteria for inclusion of family need to be familiar to staff. FWR should become a routine event in the emergency department with space made available for the family, staff available and competent to stand with the family and explain procedures and offer comfort. Regular inclusion of family in the acute resuscitation of a patient will

be a process that begins from the time the family and patient arrive at the emergency department.

FWR is a practice that can make a devastating event in a family into an event that is comprehensible by those that have been afforded the opportunity of witnessing the last moments of a patient's life.

7 **REFERENCES**

- 1) Guzzetta CE, Clark AP, Wright JL. Family presence in Emergency Medical services for children. Clinical Paediatric Emergency Medicine; 2006 Jan; 01(002): 15-23.
- 2) Kissoon N. Family presence during cardiopulmonary resuscitation: Our anxiety versus their needs. Paediatric Critical Care Medicine; 2006; 7(5): 488-9.
- 3) McClenathan BM, Torrington KG, Uyehara CFT. Family member presence during cardiopulmonary resuscitation: A survey of US and International Critical Care Professionals. Chest 2002; 122: 2204-2211.
- 4) Gold KJ, Gorenflo DW. Physician experience with the family presence during CPR in children. Paediatric Critical Care Medicine 2006; 7(5): 428-33.
- 5) Goodenough and Brysiewicz. Witnessed resuscitation – exploring the attitudes and practices of emergency staff working in level 1 Emergency Departments in the province of KwaZulu-Natal. Curationis; 2003; 26: 56-63
- 6) Isaacs A and Mash RJ. An unsuccessful resuscitation: The Families’ and Doctors’ experiences of an unexpected death of a patient. SA Family Practice 2004; 46 (8)
- 7) Davidson JE. Family presence at resuscitation: What if? Critical Care Medicine 2006; 34(12): 3041-42.
- 8) Walker W. Accident and emergency staff opinion on the effects of family presence during adult resuscitation: critical literature review. Journal of Advanced Nursing; 61(4): 348-362.

- 9) Doyle CJ, Post H, Burney RE, Maino J, Keefe M, Rhee KJ. Family participation during resuscitation: an option. Annals of Emergency Medicine; 1987; 16(6): 673-5.
- 10) Maurice H. Family presence in Emergency Department Resuscitation: A Proposed Guideline for an Australian Hospital. Australian Emergency Nursing Journal; 2002; 5 (3): 21 -27.
- 11) Holzhauser K, Finucane J, De Vries SM. Family presence during resuscitation a randomised controlled trial of the impact of family presence. Australasian Emergency Nursing Journal; 2006; 8(4): 139-47.
- 12) Booth MG, Woolrich L, Kinsella J. Family witnessed resuscitation in UK emergency departments: a survey of practice. European Journal of Anaesthesiology; 2004; 21: 725-28.
- 13) American Heart Association. AHA 2005 guidelines for cardiopulmonary resuscitation and emergency care. Circulation; 2005; 112(suppl): IVI-203.
- 14) Engel K, Barnosky AR, Berry-Bovia M, Desmond J S, Ubel PA. Provider experience and attitudes toward Family Presence during Resuscitation Procedures. Journal of Palliative Medicine; 10 (5): 1007-1009.
- 15) Compton S, Madgy A, Goldstein M, Sandhu J, Dunne R and Swor R. Emergency medical service providers' experience with family presence during cardiopulmonary resuscitation. Resuscitation; 2006; 70: 223-228.

- 16) Des Plaines IL. Emergency Nurses Association. Emergency Nurses Association Position Statement: Family presence at the bedside during invasive procedures and cardiopulmonary resuscitation. Emergency Nurses Association; 1994; P1-8
- 17) Resuscitation Council (UK). Should relatives witness resuscitation: A report from a project team of Resuscitation Council (UK). October 1996
- 18) Fulbrook P, Latour J *et al.* The presence of family members during cardiopulmonary resuscitation: European Federation of Critical Care Nursing Association, European Society of Paediatric and Neonatal Intensive Care and European Society of Cardiology Council of Cardiovascular Nursing and Allied Professions joint position statement. Connect: The World of Critical Nursing; 2007; 5(4): 86-8
- 19) Macy C, Lampe E, O' Neil B, Swor R, Zalenski R, Compton S. The relationship between the hospital setting and perceptions of family-witnessed resuscitation in the emergency department. Resuscitation; 2006; 70: 74-79.
- 20) Mazar MA, Cox LA, Capon JA. The public's attitude and perception concerning witnessed cardiopulmonary resuscitation. Critical Care Medicine; 2006 Dec; 34(12): 2925-8.
- 21) Barata I *et al.* A prospective study of emergency medicine resident's attitudes towards family presence during paediatric procedures. The internet journal of Emergency Medicine. <http://www.ispub.com/ostia/index.php?xmlFilePath> accessed 17 August 2008.

- 22) Duran CR, Oman KS, Abel JJ, Koziel VM, Szymanski D. Attitudes toward and beliefs about family presence. A survey of healthcare providers, patients' families and patients. American Journal of Critical Care; May 2007; 16(3): 270-9.
- 23) Critchell CD, Marik PE. Should family members be present during cardiopulmonary resuscitation? A review of the literature. American Journal of Hospice and Palliative Medicine; 2007; 24(4): 311-17.
- 24) Royal College of Nursing. Witnessing Resuscitation, guidance for Nursing Staff.
- 25) Salmond SW and Palpanus LM. A comprehensive systematic review of Family Witnesses Resuscitation and Family Witnessed Invasive procedures in adults in hospital settings internationally. Available on http://www.joannabriggs.edu.au/pubs/systematic_reviews_prot.php accessed on 2010/01/19

Appendices

APPENDIX 1

Information Sheet

Study title: A research project on the attitudes of doctors working in Emergency Departments in the Gauteng area towards family witnessed resuscitation

Investigator: Dr Evelyn Dawn Gordon

Supervisor: Professor Ian Couper

Dear Colleague

My name is Dr Evelyn Dawn Gordon, I currently manage an Emergency department in Bedfordview and am a MSc Med Emergency Medicine student of the University of the Witwatersrand Faculty of Health Sciences Department of Emergency Medicine. I am completing my degree and as part of the requirements for the degree is a research project. My research project involves a questionnaire that seeks to ascertain the frequency with which family witnessed resuscitation occurs and the attitudes of registered medical practitioners practicing in Emergency Medicine towards having family present during the resuscitation of a patient. I wish to see if family presence at resuscitation is common practice and what the Emergency Department practitioners feel the advantages and disadvantages of such practice are.

The questionnaire is completely anonymous and confidential; you cannot be identified in any way. Numbered questionnaires will be distributed randomly. Should you feel uncomfortable about answering any of the questions you are welcome to omit them.

This study aims to determine the perceptions of doctors actively working in Emergency Departments towards the practice of family witnessed resuscitation. Informed consent is implied by completing the questionnaire.

The study will be carried out in several Emergency Departments within the Gauteng area and will also be distributed to attendees of the Monthly Emergency Medicine lectures presented by the University of the Witwatersrand Faculty of Health Sciences department of Emergency Medicine. The research will be done in the form of a questionnaire which you are kindly asked to complete. To complete the questionnaire should not take longer than 15 minutes. When you have finished the questionnaire please place it in the envelope provided. The sealed envelope can then be placed in the collection box for collection. All questionnaires are anonymous and will be treated in the strictest of confidence.

The findings of the project will be available after completion of the report.

Thank you for your time and assistance.

Dr Evelyn Gordon (082 894 9154)

MSC Med Emergency Medicine Student 9100218Y

APPENDIX 2

Questionnaire

This is an anonymous questionnaire, and the researcher will not be able to identify individuals who participated. Numbered questionnaires have been distributed randomly. Informed consent is implied by completing the questionnaire. You may omit any questions you do not wish to answer.

Personal details:

1) Age: _____ years

2) Gender: Male _____ Female _____

3) How long have you been involved in Emergency Medicine? _____years

4) Have you participated in any Emergency Medicine courses?

ACLS Yes _____ No _____

PALS Yes _____ No _____

ATLS Yes _____ No _____

Other course/s attended _____

- 5) How many acute resuscitations are you actively involved in wherever you work on a weekly basis?

Number of resuscitations	
Less than 5	
6 - 10	
11 - 15	
More than 16	

Family witnessed resuscitation

- 6) A number of medical bodies advocate that close relatives should be in attendance in the Resuscitation Room during resuscitation of a patient and allowed to witness proceedings? Are you aware of this?

Yes	No

- 7) Have you ever allowed this practice while you are in charge of a resuscitation?

Yes	No

If you have answered yes to question number 7 please continue with questions 8 through 21

If you have answered no to question number 7 please continue with questions 22 through 25

- 8) If you have allowed family to witness resuscitation on how many occasions have you done so?

Number of times	
Less than 5	
6 – 10	
11 - 20	
21 - 50	
51 - 100	
More than 100	

- 9) Do you or would you actively invite family members into the resuscitation room when you are acutely resuscitating a patient?

Always	Often	Occasionally	Never

- 10) Which family members do you or would you allow to witness the acute resuscitation of the patient?

Family Member	Always	Often	Occasionally	Never
Partner/ Spouse				
Mother				
Father				
Sister				
Brother				
Child				

Family Member	Always	Often	Occasionally	Never
Grandparent				
Other (state)				

11) Do you or would you allow more than one family member into the resuscitation room at one time ?

Always	Often	Occasionally	Never

12) It would be easier to allow the family to witness the resuscitation of which of the following patients?

Patient	Always	Mostly	Occasionally	Never
Infant (6months to 1 year)				
Child (1 year – 15 years)				
Young adult (15 – 30 years)				
Older adult (31 – 60 years)				
Geriatric (60 – 100 years)				

13) The following concerns about the practice of family witnessed resuscitation have been noted in the previous studies. Please indicate whether you agree or disagree with the concerns most often noted:

Concern	Strongly Agree	Agree	Disagree	Strongly Disagree
Traumatisation of family				
Personal intimidation				

Concern	Strongly Agree	Agree	Disagree	Strongly Disagree
Patient confidentiality/ privacy				
Increased medico-legal issues				
Increased difficulty in terminating resuscitation effort				
Team work is affected				

Are there any other concerns you would like to mention?

14) Are there any other issues that might affect your decision to allow the family to witness the resuscitation?

15) Have the family ever commented on their experience to you?

Yes	No

16) What was the family's experience?

Positive	Negative

Explain : _____

17) Would the family's comments encourage you to continue this practice?

Yes	No

Explain: _____

18) Comment briefly on your experience of family witnessed resuscitation

19) Any other comments:

20) Given your experience would you recommend family witnessed resuscitation to others?

Would recommend	Would not recommend	It would depend

Comment: _____

If you have never heard of the practice of family witnessed resuscitation, continue answering from here.

21) Would you consider allowing family to witness the acute resuscitation of a patient in the future?

Yes	No

22) Which family members would you allow into the resuscitation room?

Family Member	Always	Often	Occasionally	Never
Partner/ Spouse				
Mother				
Father				
Sister				
Brother				
Child				
Grandparent				
Other (state)				

23) Numerous concerns about family witnessed resuscitation have been listed in other studies. Please indicate whether you agree or disagree with the following:

Concern	Strongly Agree	Agree	Disagree	Strongly Disagree
Traumatisation of family				
Personal intimidation				

Concern	Strongly Agree	Agree	Disagree	Strongly Disagree
Patient confidentiality/ privacy				
Increased medico-legal issues				
Increased difficulty in terminating resuscitation effort				
Team work is affected				

Any other concern not listed above: _____

24) Are there any other issues that might affect your decision to allow the family to witness the resuscitation?

25) Any other comments:

APPENDIX 3

Information Letter

Dear Sir / Madam

RE: Research Project

My name is Dr Evelyn Gordon. I currently manage an Emergency Department in Bedfordview and am an MSc Med Emergency Medicine student of the University of the Witwatersrand Faculty of Health Sciences Department of Emergency Medicine. I am completing my degree and as part of the requirements for the degree is a research project. My research project involves a questionnaire that seeks to ascertain the frequency of family witnessed resuscitation and the attitudes of registered medical practitioners practicing in emergency medicine towards having family present during the resuscitation of a patient. I wish to see if family presence at resuscitation is common practice and what the emergency room practitioners feel the advantages and disadvantages of such practice are.

The study will be in the form of an anonymous questionnaire. I wish to distribute the questionnaire for completion to the doctors in your Accident and Emergency Units in the Gauteng area. There is no reference in the questionnaire to where the practitioner currently practices. The study is purely to assess attitudes and current practices.

All questionnaires will be kept under lock and key. Results of the study will be forwarded to you on completion of the report.

Thank you for your support

Regards,

Dr Evelyn Gordon

MSc Med Emergency Medicine Student 9100218Y

082 894 9154

APPENDIX 4

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Division of the Deputy Registrar (Research)

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

R14/49 Gordon

CLEARANCE CERTIFICATE

PROTOCOL NUMBER M080803

PROJECT

A Research Project on the Attitudes
of Doctors Working in Emergency
Departments in the Gauteng are
Towards Family Witnessed Resuscitation

INVESTIGATORS

Dr ED Gordon

DEPARTMENT

Department of Family Medicine

DATE CONSIDERED

08.08.29

DECISION OF THE COMMITTEE*

Approved unconditionally

Unless otherwise specified this ethical clearance is valid for 5 years and may be renewed upon application.

DATE

08.09.01

CHAIRPERSON



(Professor P E Cleaton Jones)

*Guidelines for written 'informed consent' attached where applicable

cc: Supervisor : Prof I Couper

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to a completion of a yearly progress report.**

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES