

A SURVEY ON
KNOWLEDGE, ATTITUDE AND CONFIDENCE LEVEL
OF ADULT CARDIOPULMONARY RESUSCITATION
AMONG JUNIOR DOCTORS IN
HOSPITAL UNIVERSITI SAINS MALAYSIA AND
HOSPITAL RAJA PEREMPUAN ZAINAB II.
KOTA BHARU, KELANTAN

by

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Dissertation Submitted In
Partial Fulfillment Of The
Requirements For The
Degree Of
Master Of Medicine
(EMERGENCY MEDICINE)



UNIVERSITI SAINS MALAYSIA
MAY 2010

ACKNOWLEDGEMENT

I would like to express my gratitude to all those who gave me the possibility to complete this dissertation. Special thanks to my supervisors, Dr Abu Yazid Md Noh and Dr. Chew Keng Sheng for their valuable supports and guidance throughout the entire process of preparing and checking the manuscript.

Thanks to Associate Professor Dr. Nik Hisamuddin Nik Abdul Rahman as the head of the Emergency Department for his support and encouragement.

My appreciation goes also to lecturers and colleagues from Community Health Department for the statistical analysis input especially Dr Wan Zahiruddin and Dr Azriani Daud.

I have furthermore to thank the Director of Hospital Raja Perempuan Zainab II Kota Bharu who gave permission and encouraged me to go ahead with my dissertation. My colleagues from Emergency Department HUSM supported me in this research. I want to thank them for all their help, support, interest and valuable hints.

Thanks to my alma mater, Pusat Pengajian Sains Perubatan (PPSP), Universiti Sains Malaysia. I am always proud to be a student of USM, and I am extremely grateful to be tutored by many great lecturers and teachers from my first to final year during my current master in medicine training. It is also a great honor for me to be given the privilege to be a trainee lecture here in my own alma mater.

Lastly, special thanks to my family, especially my wife, Dr Wan Faiziah, my two beloved princes Ahmad Lutfilhadi and Ahmad Baihaqi for their constant support and encouragement, especially during the nights of preparing and re-preparing this dissertation manuscript. It is to them I dedicate this dissertation.

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LIST OF ABBREVIATIONS

ABC	Airway, Breathing, Circulation
ACLS	Advanced Cardiac Life Support
AED	Automated Electrical Defibrillator
AHA	American Heart Association
APEX	Accelerated Programme for Excellent
BLS	Basic Life Support
CHD	Coronary Heart Disease
CME	Continuous Medical Education
CPP	Coronary Perfusion Pressure
CPR	Cardiopulmonary Resuscitation
ECC	Emergency Cardiovascular Care
ED	Emergency Department
EMS	Emergency Medical Services
ERC	European Resuscitation Council
GP	General Practitioner
HO	House Officer
HUSM	Hospital Universiti Sains Malaysia
HRPZ II	Hospital Raja Perempuan Zainab II
ILCOR	International Liaison Committee on Resuscitation
IHA	In Hospital Cardiac Arrest
KAC	Knowledge, Attitude, Confidence
MMC	Malaysia Medical Council
NMRR	National Medical Research Registration

NRCPR	National Registry of Cardiopulmonary Resuscitation
OHA	Out of Hospital Cardiac Arrest
PEA	Pulseless Electrical Activity
ROSC	Return of Spontaneous Circulation
SHO	Senior House Officer
TKS	Total Knowledge Score
TAS	Total Attitude Score
TCS	Total Confidence Score
VF	Ventricular Fibrillation
VT	Ventricular Tachycardia

ABSTRAK

KAJIAN MENGENAI PENGETAHUAN, SIKAP DAN KEYAKINAN DIRI DOKTOR JUNIOR TERHADAP RESUSITASI KARDIOPULMONARI DEWASA DI HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) DAN HOSPITAL RAJA PEREMPUAN ZAINAB II (HRPZ II)

Pengenalan

Kerapkali di hospital, doktor junior yang memulakan resusitasi. Oleh itu, amat penting doktor junior memiliki pengetahuan, sikap dan keyakinan diri yang baik dalam mengendalikan rawatan jantung terhenti berdasarkan panduan terkini resusitasi. Kajian sebelum ini mendapati kebanyakan doktor junior mempunyai tahap latihan dan pengetahuan yang lemah tentang resusitasi. Mereka juga lemah dalam keyakinan diri semasa berhadapan dengan situasi kecemasan terutama pada tahun pertama bergelar doktor. Walau bagaimanapun, hasil penyelidikan daripada negara-negara lain masih belum dapat ditentukan bahawa ia boleh diaplikasikan dalam populasi tempatan. Sesungguhnya penyelidikan dalam bidang CPR amat kurang di Malaysia terutama mengenai doktor junior. Kajian ini bertujuan untuk menyelidik tahap pengetahuan, sikap dan keyakinan diri doktor junior dan juga mengkaji faktor-faktor yang mempengaruhinya. Kajian ini diharap dapat memulakan satu bank maklumat agar pusat perubatan lain dapat menyumbang terhadapnya dan dapat dikongsi bersama.

Metodologi

Kajian ini dilakukan sebagai satu kajian “cross-sectional”. Soalan dibuat berdasarkan rujukan terhadap “AHA Guidelines 2005” dan beberapa artikel yang berkaitan. Kemudian soalan disemak oleh dua orang pakar perubatan kecemasan dan

ujian awal soalan dilaksanakan di HUSM untuk memastikan kesesuaian, konsistensi dan ketepatan soalan. Semua doktor junior di HUSM dan HRPZ II dimasukkan dalam kajian ini. Kajian ini dijalankan dalam tempoh tiga bulan, iaitu dari Oktober 2008 hingga Disember 2008. Soalan kemudian diagihkan kepada wakil setiap hospital untuk disampaikan kepada doktor junior. Soalan adalah tanpa nama dan tiada had masa menjawabnya. Setelah siap, soalan dikutip dan diletakkan kod bagi setiap hospital dan juga diperiksa agar kriteria kajian dipenuhi. Analisis statistik kemudiannya menggunakan program SPSS versi 12.0.1.

Keputusan

Seramai 70 doktor junior dianalisa. Kadar purata umur doktor adalah 26.9 tahun dan 68.6% telah berkhidmat kurang daripada setahun. Sebanyak 68.6% doktor junior telah menerima latihan asas bantuan hayat. Daripada jumlah itu 33% doktor yang menjalani latihan asas dalam tempoh kurang daripada setahun. Hanya 11.4% doktor yang mempunyai latihan resusitasi peringkat tinggi (advanced). 50% doktor pernah mengendalikan kes-kes jantung terhenti. Walau bagaimanapun, 60% tidak pernah melakukan rawatan defibrilasi (defibrillation). Purata markah pengetahuan adalah 68.8%. Secara statistiknya, tiada faktor-faktor yang dikaji mempengaruhi purata markah pengetahuan. Manakala purata markah untuk sikap ialah 64.4%. 71.4% doktor tidak bersetuju dengan pernyataan bahawa tempoh latihan untuk "housemanship" mencukupi bagi mengendalikan kes-kes kecemasan dan 94.3% bersetuju dengan cadangan agar semua doktor junior perlu memiliki latihan bantuan hayat jantung peringkat tinggi (ACLS). Purata markah untuk keyakinan diri ialah 28%. Kebanyakan doktor tidak berkeyakinan untuk menjadi ketua pasukan semasa resusitasi (85.7%),

prosedur intubasi (65.7%), rawatan defibrilasi (defibrillation)(78.6%), penggunaan ubat amiodarone (82.9%) dan prosedur memasukkan tiub pada salur darah vena sentral (CVL)(74.3%). Dengan adanya latihan ACLS, pengalaman bekerja lebih daripada setahun dan selesai menjalani pusingan jabatan sebanyak 6 unit dapat membantu menambah keyakinan doktor junior.

Kesimpulan

Secara keseluruhan, pengetahuan tentang resusitasi adalah sederhana dengan kebanyakan doktor mempunyai sikap yang bagus. Walau bagaimanapun tahap keyakinan diri doktor junior adalah lemah dalam mengendalikan resusitasi. Keputusan kajian ini mendapati latihan asas bantuan hayat (BLS) sepatutnya diajar pada peringkat ijazah perubatan iaitu sebelum bekerja dan mengambil latihan bantuan hayat jantung peringkat tinggi (ACLS) semasa bekerja, memberi pendedahan awal tentang situasi sebenar resusitasi dan kerap mengadakan kursus/latihan sekurang-kurangnya 6 bulan sekali.

ABSTRACT

A SURVEY ON KNOWLEDGE, ATTITUDE AND CONFIDENCE LEVEL OF ADULT CARDIOPULMONARY RESUSCITATION (CPR) AMONG JUNIOR DOCTORS IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) AND HOSPITAL RAJA PEREMPUAN ZAINAB II (HRPZ II).

Introduction

In hospital, junior doctors are often the first to initiate resuscitation attempts. Therefore it is important that they have adequate knowledge, positive attitude and good confidence level in managing cardiac arrests according to the current guidelines for resuscitation. Previous studies have shown poor levels of resuscitation training and knowledge among junior doctors. In addition their self reported clinical skills in managing emergency situation are low, highly variable and do not increase during their first years after graduation. However it remains to be proven whether these results of research mainly from other countries are applicable to our local population. There is currently lack of CPR research especially among junior doctors in Malaysia. The aims of this study were to determine the level of knowledge, attitude and confidence of junior doctors in HUSM and HRPZII and also to describe the factors that influence it. This study also serves as a starting point to hopefully create a database that other centers in the nation will be able to add on to.

Methodology

This is cross-sectional study using convenient sample. A questionnaire was design based on AHA Guidelines 2005 and review relevant literature. It was edited by two emergency physicians and pre-test was conducted in HUSM to validate and test the

reliability of the questionnaire. All junior doctors in HUSM and HRPZII were included in this study. The study was conducted from October till December 2008. Questionnaires were circulated with help from representative from each hospital. It was anonymous and no time limit. The forms were then collected and coded according to the hospital and checked to confirm the doctors had trained three years and below. Statistical analysis was used using software SPSS version 12.0.1.

Results

A total of 70 junior doctors were analyzed. Average age was 26.9 years and 68.6% already in practice less than one year. 68.6% of doctors received basic resuscitation training during internship, out of these 33% had received training in previous one year. Only 11.4% had advanced training in resuscitation. 50% of doctors had attended cardiac arrest cases. However, 60% doctors never performed defibrillation. The mean knowledge score was 68%. The difference between subject variables and knowledge score was statistically not significant. The attitude score was 64.4%. 71.4% of doctors disagree their internship training was adequate and 94.3% agree all junior doctors should have ACLS. The confidence score was 28%. Most of the doctors were not confident being a team leader (85.7%), performing intubation (65.7%), defibrillation (78.6%), administering amiodarone (82.9%) and inserting central venous line (74.3%) during resuscitation. Factors that improved doctor's confidence in resuscitation were ACLS training, more than a year job experience and completion of rotation in six departments.

Conclusion

The resuscitation knowledge was average and most doctors have positive attitude on resuscitation. However self reported confidence was poor among junior doctors. Our result suggest mandatory attainment of BLS during undergraduate and ACLS during internship, increased exposure of real resuscitation situations to improve undergraduate training and regular practical/skill course six monthly.