PERPUSTAKAAN KAMPUS KESIHATAN
UNIVERSITI SAINS MALAYSIA

RUJUKAN

LAPORAN AKHIR PROJEK PENYELIDIKAN JANGKA PENDEK

LAPORAN AKHIR PROJEK PENYELIDIKAN JANGKA PENDEK

PUSAT PENGAJIAN SAINS PERUBATAN

SALINAN :

Bhg. Penyelidikan, PPSP

[illegible] Perubatan, USMKK

Tarikh : 26/7/05

USM J/P- 06

BAHAGIAN PENYELIDIKAN & PEMBANGUNAN
CANSELORI
UNIVERSITI SAINS MALAYSIA

Laporan Akhir Projek Penyelidikan Jangka Pendek

1) **Nama Penyelidik:** Dr Zaharah Sulaiman

Nama Penyelidik-Penyelidik Lain (Jika berkaitan): Penyelia Kajian
Dr Mohd Hashim Mohd Hassan
Dr Mazlan Abdullah

2) **Pusat Pengajian/Pusat/Unit:** Jabatan Perubatan Masyarakat., Pusat Pengajian Sains Perubatan, USM Kubang Kerian.

3) **Tajuk Projek:** Factors Influencing Antenatal Mothers' Choice of Hospital for Delivery at Hospiatl Universiti Sains Malaysia (HUSM) and Hospiatal Kota Bharu (HKB).

USM J/P-06 - 1

4) (a) **Penemuan Projek/Abstrak**
(Perlu disediakan makluman di antara 100 – 200 perkataan di dalam Bahasa Malaysia dan Bahasa Inggeris. Ini kemudiannya akan dimuatkan ke dalam Laporan Tahunan Bahagian Penyelidikan & Pembangunan sebagai satu cara untuk menyampaikan dapatan projek tuan/puan kepada pihak Universiti).

ABSTRAK

Pemilihan hospital untuk bersalin tidak menjadi isu bagi wanita sehingga mereka mengandung. Tujuan utama menggalakkan ibu-ibu mengandung agar bersalin di hospital adalah untuk memastikan keselamatan ibu serta anak yang baru dilahirkan. Objektif utama kajian tersebut adalah untuk menentukan faktor-faktor yang mempengaruhi ibu-ibu mengandung dalam pemilihan Hospital Universiti Sains Malaysia (HUSM) dan Hospital Kota Bharu (HKB) sebagai tempat bersalin. Kajian tersebut dijalankan dalam dua fasa. Dalam fasa pertama, satu kajian hirisan lintang telah dijalankan ke atas 344 orang ibu-ibu mengandung multipariti, berbangsa Melayu yang menjalani pemeriksaan kandungan mereka di Klinik-Klinik Kesihatan Ibu dan Anak terpilih sekitar daerah Kota Bharu, mulai bulan November 2003 hingga Februari 2004. Pemilihan subjek dibuat secara persampelan dua peringkat. Data diperolehi melalui temuduga menggunakan borang soal selidik yang telah disahihkan dan dibuat pra-uji terlebih dahulu. Untuk memastikan kualiti temuduga yang tinggi, hanya seorang penemuduga terlibat. Borang soal selidik mencakupi beberapa bidang iaitu sosio ekonomi, kemudahcapaian, pengalaman melahirkan anak sebelum ini, hubungan secara peribadi antara doktor dan jururawat bertugas serta keselesaan kepada pesakit dan keluarga mereka. Data telah dianalisa menggunakan analisis logistik regresi. Perbincangan Fokus Berkelompok (PFB) telah dijalankan dalam fasa kedua pada bulan Mac 2004. Tujuan PFB dijalankan adalah untuk mendapatkan maklumat mendalam mengenai faktor-faktor yang tidak boleh diterokai melalui borang soal selidik. Untuk memenuhi objektif ini, seramai 24 orang peserta yang telah menyertai kajian dalam fasa pertama secara sukarela setelah memberi persetujuan untuk terlibat dalam PFB. Sebanyak 4 sesi PFB telah dijalankan, dan setiap perbincangan telah dihadiri oleh 6 orang peserta. Respon yang

diberikan kemudiannya telah ditranskrip dan dianalisa berpandukan soalan-soalan rangka yang dikemukakan. Prevalen mereka yang memilih hospital sebagai tempat bersalin iaitu HUSM ialah 38.0% manakala untuk HKB ialah 62.0%. Berasaskan kepada keputusan analisa logistik mudah, sepuluh faktor yang mempengaruhi pilihan hospital secara signifikan ialah klinik kesihatan yang dikunjungi untuk pemeriksaan antinatal, hospital bersalin terdahulu, jarak ke hospital dari rumah, kemudahcapaian ke hospital, perkhidmatan jururawat yang bagus, waktu menunggu yang singkat, wad yang bersih, hospital rakan kanak-kanak (menerima pelawat kanak-kanak bawah 12 tahun) dan waktu menunggu yang singkat untuk pendaftaran ke wad. Dari kesemua faktor tersebut, hanya tiga faktor sahaja yang kekal mempengaruhi secara signifikan apabila dianalisa menerusi analisis logistik regresi berganda. Model terakhir telah diuji dan didapati memuaskan. Faktor-faktor yang terhasil dari model logistik regresi berganda ialah hospital bersalin terdahulu, kemudahcapaian dan hospital rakan kanak-kanak. Keputusan yang diperolehi daripada PFB menyokong kepada model tersebut dan berjaya mempelopori faktor yang tersirat. Berpandukan kepada analisa logistik regresi berganda, kajian ini menunjukkan faktor-faktor yang mempengaruhi ibu-ibu mengandung memilih hospital secara signifikan untuk bersalin di daerah Kota Bharu ialah hospital bersalin terdahulu, kemudahcapaian dan hospital rakan kanak-kanak (hospital membenarkan kanak-kanak bawah 12 tahun untuk melawat ibu mereka di wad).

ABSTRACT

The selection of a hospital for delivery does not become an issue for women until they become pregnant. The main aim for promoting hospital delivery is to ensure safety to the mother and the newborn child. The main objective in this study is to determine the factors that influence antenatal mothers choice of hospitals for delivery at Hospital Universiti Sains Malaysia (HUSM) and Hospital Kota Bharu (HKB). The study was carried out in two phases. In phase one, a cross sectional study was conducted on 344 Malays, multiparty antenatal mothers who attended selected Maternal and Child Health Clinics (MCHC) in Kota Bharu district, from November 2003 to February 2004. Subjects were selected using two-stage sampling. Data were obtained using an interviewer guided, validated and piloted questionnaire. In order to ensure high quality of the interview, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, and interpersonal relationship with doctors and nurses, comfort of the patients and their relatives. The data were analyzed using logistic regression. Focus Group Discussions (FGD) were carried out in phase two in March 2004. FGD was carried out purposely to explore in depth the influencing factors, which cannot be explored through questionnaire. To fulfill this objective, 24 volunteered antenatal mothers were recruited in this phase after being consented and agreed to involve in this study. Four FGD sessions, each group consisted of six participants were conducted. Their responses were transcribed and analyzed based on the framework questions directed to them. The prevalence for choosing HUSM for delivery center was 38.0% and HKB 62.0% respectively. Based on the simple logistic regression, ten predictors variables namely health center, previous delivery hospital, distance to hospital, accessibility to hospital, good nursing care, short waiting hours, clean wards, children friendly (accept visitor under twelve) and fast admission to wads were significantly associated with the outcomes,. Among these only three factors remained significantly influenced when analyzed through multiple logistic regression. The final model was tested and it was found fit. The factors derived from the final model were previous delivery hospital, accessibility and children-friendly hospital. The findings in FGD support the model above and were able to extract the underlying facts. This study concludes previous delivery hospital; accessibility and children friendly hospital (hospital allows children under 12 years to visit their mothers in the wards) significantly influences the choice of hospital for delivery among antenatal mothers in Kota Bharu district.

(b) **Senaraikan Kata Kunci yang digunakan di dalam abstrak:**

Bahasa Malaysia	Bahasa Inggeris
Pemilihan hospital	Hospital choice
Bersalin	Delivery
HUSM	HUSM
HKB	HKB

5) **Output Dan Faedah Projek**

(a) Penerbitan (termasuk laporan/kertas seminar)
(Sila nyatakan jenis, tajuk, pengarang, tahun terbitan dan di mana telah diterbit/dibentangkan).

PAPER PRESENTATIONS

National level
2004:

Zaharah S., Mohd Hasim M H., Mazlan A. *Antenatal mothers' knowledge on patients' rights and their preferences for intra partum care: Are they influenced by socio economic status?* Paper presented (oral) at the **6th PPIM Annual Scientific Meeting, Penang,** 28-30 May 2004.

Zaharah S., Mohd Hashim M H., Mazlan A. *Factors influencing antenatal mothers' choice of hospital for delivery.*(Preliminary results). Paper presented (oral) at the 11th **National Public Health Colloquium**, Kuala **Lumpur,** 21 – 22 September 2004.

2005:

Zaharah S., Mohd Hashim M H., Mazlan A. *Antenatal mothers' knowledge on patients' rights and their preferences for intra partum care:* Paper presented (oral) at **3rd Safe Motherhood Congress, Kuala Lumpur,**
25 – 27 February 2005.

Zaharah S., Mohd Hashim M H., Mazlan A. *Factors influencing antenatal mothers' choice of hospital for delivery at Hospital Universiti Sains Malaysia (HUSM) and Hospital Kota Bharu (HKB).* Paper presented (oral) for ***4th*** **National Public Health Conference, Kuala Lumpur,** 15 – 17 March 2005.

International level
2005:

Zaharah S., Mohd Hashim M H., Mazlan A. *Influence of cultural values and socio economic factors on antenatal mothers' knowledge on their rights and preferences for intra partum care.* Paper presented (oral) at **6th International Conference on Gender and Development in South East Asia, Bangkok, Thailand,** 19 – 20 March 2005.

PUBLICATIONS
2004:
Journal publication (status accepted for publication) :

Zaharah S., Mohd Hashim M H., Mazlan A., *The influence of socio economic status on antenatal mothers' knowledge on their rights and preferences for intra partum care,* **Malaysian Journal of Public Health** in December 2004.

Zaharah S., Mohd Hashim M H., Mazlan A., *Factors influencing antenatal mothers' choice of hospital for delivery.* **Malaysian Journal of Public Health** in December 2004.

2005:
Proceeding publication:

Zaharah S., Mohd Hashim M H., Mazlan A., *Influence of cultural values and socio economic status on antenatal mothers' knowledge on their rights and preferences for intra partum care (Analyzed with quantitative and quantitative studies)* pp B118-127. **PROCEEDINGS 2005, 6th International Conference, Gender and Development in South East Asia, Bangkok, Thailand,** 19 – 20 March 2005.

(b) **Faedah-Faedah Lain Seperti Perkembangan Produk, Prospek Komersialisasi Dan Pendaftaran Paten.**
(Jika ada dan jika perlu, sila guna kertas berasingan)

....Tiada.......................................

(c) **Latihan Gunatenaga Manusia**

i) Pelajar Siswazah: ....Tiada..................................

ii) Pelajar Prasiswazah: ....Tiada...............................

iii) Lain-Lain : ....Tiada...

6. **Peralatan Yang Telah Dibeli:**

Perakam keset untuk fasa kedua kajian - Perbincangan Fokus Berkelompok (PFB)

UNTUK KEGUNAAN JAWATANKUASA PENYELIDIKAN UNIVERSITI

Penyelidikan banyak menghasilkan K2/kaji

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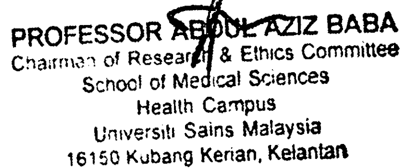


T/TANGAN PENGERUSI
J/K PENYELIDIKAN
PUSAT PENGAJIAN

PROFESSOR ABDUL AZIZ BABA
Chairman of Research & Ethics Committee
School of Medical Sciences
Health Campus
Universiti Sains Malaysia
16150 Kubang Kerian, Kelantan

UNIVERSITI SAINS MALAYSIA
JABATAN BENDAHARI
KUMPULAN WANG PENYELIDIKAN GERAN USM(304)
PENYATA PERBELANJAAN SEHINGGA 30 JUN 2005

Jumlah Geran	RM	13,107.00	Ketua Projek:	DR. ZAHARAH SULAIMAN
Peruntukan 2003 (Tahun 1)	RM	0.00	Tajuk Projek:	Factors Influencing Pregnant Women's Choice of Hospital for Delivery
Peruntukan 2004 (Tahun 2)	RM	0.00		
Peruntukan 2005 (Tahun 3)	RM	0.00	Tempoh:	15 Jun 03- 14 Jun 05
			No.Akaun:	304/PPSP/6131282

Kwg	Akaun	PTJ	Projek	Donor	Peruntukan Projek	Perbelanjaan Terkumpul Hingga Tahun Lalu	Peruntukan Semasa	Tanggungan Semasa	Bayaran Tahun Semasa	Belanja Tahun Semasa	Baki Projek
304	11000	PPSP	6131282		-	-	-	-	-	-	-
304	14000	PPSP	6131282		-	-	-	-	-	-	-
304	15000	PPSP	6131282		-	-	-	-	-	-	-
304	21000	PPSP	6131282		2,460.00	504.00	1,956.00	1,080.00	2,528.00	3,608.00	(1,652.00)
304	22000	PPSP	6131282		-	-	-	-	-	-	-
304	23000	PPSP	6131282		300.00	4.10	295.90	-	5.80	5.80	290.10
304	24000	PPSP	6131282		-	-	-	-	-	-	-
304	25000	PPSP	6131282		-	-	-	-	-	-	-
304	26000	PPSP	6131282		-	-	-	-	-	-	-
304	27000	PPSP	6131282		520.00	277.22	242.78	300.00	574.00	874.00	(631.22)
304	28000	PPSP	6131282		-	-	-	-	-	-	-
304	29000	PPSP	6131282		8,827.00	5,271.00	3,556.00	-	1,764.25	1,764.25	1,791.75
304	32000	PPSP	6131282		-	-	-	-	-	-	-
304	35000	PPSP	6131282		1,000.00	-	1,000.00	-	-	-	1,000.00
					13,107.00	6,056.32	7,050.68	1,380.00	4,872.05	6,252.05	798.63

Paper presentation and Publication

BACK TO THE FUTURE

Reliving the Golden Era of Islamic Medicine

6th NATIONAL SCIENTIFIC MEETING

28 -30 May 2004

Bayview Beach Resort, Penang, Malaysia

Jointly Organized by :

PERSATUAN PERUBATAN ISLAM MALAYSIA

PENANG STATE HEALTH DEPARTMENT &

BADAN KEBAJIKAN ISLAM HOSPITAL PULAU PINANG

ANTENATAL MOTHERS' KNOWLEDGE ON PATIENTS' RIGHTS AND THEIR PREFERENCES FOR INTRA PARTUM CARE: ARE THEY INFLUENCED BY SOCIOECONOMIC STATUS?

AUTHORS:
Sulaiman, Z; Mohamed Hassan, M H; Abdullah, M; Winn, T.

INSTITUTION:
Department of Community Medicine, School of Medicine, Health Campus,
Universiti Sains Malaysia, Kubang Kerian, Kelantan

CATEGORY:
Miscellaneous

OBJECTIVES:

1. To determine antenatal mothers':
    a. knowledge on their rights in intra partum care
    b. preferences for intra partum care

2. To determine the association between socioeconomic status (monthly household income, occupation and education) and :
    a, antenatal mothers' knowledge on their rights in intra partum care
    b. antenatal mothers' preferences for intra partum care

METHOD :
A cross sectional study was conducted on 340 Malays, antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district, from November 2003 to February 2004. The data wwre obtained using interviewer guided questionnaire containing 3 domains (socioeconomic, knowledge and preference).

RESULTS :
The mean household income was RM 1260.00 a month. 68 % were housewives and 20 % had tertiary education.

On the average, only 22 % of respondents had knowledge on their rights. If they were given a choice, they preferred the delivery to be conducted by female (86 %) and Muslim (77%) doctors. 78 % agreed medical and nurse trainees should only assist in the delivery and only 10 % allowed trainees to deliver their babies. Only 43 % wanted pain relief. 60 % requested husbands accompanying the labor.

There was a significant association ($p<0.05$) between socioeconomic status and patients' knowledge on their rights but not with their preferences for intra partum care.

CONCLUSION :
Socioeconomic status influences antenatal mothers' knowledge on their rights, but not their preferences for intra partum care.

For any enquiries, please contact ;
Dr Zaharah Sulaiman,
09-766 4059 or 012-753 2162
zaharahsulaiman@yahoo.com

Islamic Medical Association of Malaysia

Penang State Health Department

Certificate of Appreciation

This is to certify that

Dr Zaharah Sulaiman

has successfully participated

in the 6th PPIM Annual Scientific Meeting and Biennial General Meeting

BACK TO THE FUTURE
RELIVING THE GOLDEN ERA OF ISLAMIC MEDICINE

held in Bayview Beach Resort,
Penang, Malaysia
from
28th - 30th May 2004

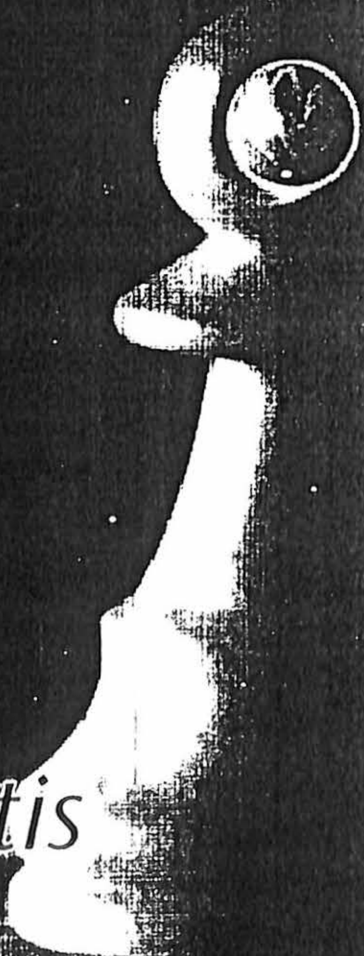
Dr. Azmi B. Shapie
Penang State Health Director
Ministry of Health

Dr. Musa B. Mohd. Nordin
PPIM President

Prof. Dr. Abdul Rashid B. Abdul Rahman
Chairman Organising Committee

Eleventh National Public Health Colloquium

Research Priorities in PUBLIC HEALTH



Date :
21 - 22nd September 2004

Venue :
The Summit Hotel, Subang US

Organised by :
- **Department of Comunity Health, Faculty of Medicine, UKM.**
- **Chapter of Public Health Medicine, The Academy of Medicine of Malaysia.**
- **Persatuan Doktor Pakar Kesihatan Awam Malaysia.**

Keputusan

Pada tahun 2003, peratus kelahiran berisiko tinggi adalah sebanyak 77% yang mana 92.7% adalah berkod kuning dan 7.3% berkod merah. Sebanyak 75.6% berumur antara 17 hingga 35 dan selebihnya berumur melebihi 35 tahun. Majoriti adalah surirumah tangga (68.3%). Bilangan kes primigravida adalah 24.4%, parity 2-5 39% dan 36.6% adalah parity 6 dan ke atas. Berdasarkan tahap pendidikan, sebahagian besar adalah bersekolah menengah (65.8%). Bilangan yang mengamalkan perancang keluarga adalah 56.1%. Terdapat 3 kes berkod merah, 2 adalah kes pre-eclampsia manakala satu kes adalah kedudukan tidak betul semasa bersalin. Faktor penyeba terbanyak bagi koding kuning adalah masalah berat badan semasa kehamilan (58.9%)majority bayi yang dilahirkan pula adalah secara SVD dengan berat di antara 2.5 hingga 4 kg dan tanpa komplikasi. Kesimpulan. Kes-kes kehamilan berisiko tinggi di Klinik Kesihatan Air Putih adalah lebih tinggi berbanding kehamilan biasa. Sebahagian besar adalah berkod kuning dan penyebab terbesar koding ini adalah masalah berat badan ibu. Sistem berkoding yang sedia ada hendaklah disemak semula semula kerana ia tidak dapat memberikan gambran sebenar tentang risiko kehamilan seseorang ibu.

SB1SP4

FACTORS INFLUENCING ANTENATAL MOTHERS' CHOICE OF HOSPITAL (HUSM or HKB) FOR INTRAPARTUM CARE.

Sulaiman Zaharah [1] *, Mohamed Hassan Mohamed Hashim, Abdullah Mazlan, Winn Than,*

[1] *Department of Community Medicine, School of Medicine, Health Campus, Universiti Sains Malaysia, Kubang Kerian, Kelantan*

Objective: To determine the factors that influence antenatal mothers in choosing hospitals for intrapartum care.

Methodology: A cross sectional study was conducted on 340 Malays, multiparity antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district, from November 2003 to February 2004. Subjects were selected using systematic random sampling. The data were obtained using an interviewer guided, validated questionnaire. In order to ensure inter rater reliability, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, interpersonal relationship with doctors and nurses, comfort of the patients and their relatives, patients knowledge on their rights and their preferences for intra- partum care. The data were analyzed using logistic regression.

Results: Univariate logistic regression outcome showed factors that influence antenatal mothers choice of hospital include previous delivery hospital OR 38.5, CI 20.6 – 72.0; accessibility OR 71.2, CI 32.9 – 153.7; satisfaction with previous delivery experience OR 4.5, CI 3.3 – 6.2; distance to hospital OR 3.47, CI 2-3 – 5.3; and comfortable with ward and hospital environment, OR 2.5 and 2.9, CI 1.16 – 5.4 and 1.7 – 5.0 respectively.

Conclusion: Based on the univariate logistic analyses, accessibility and previous delivery hospital were far more important factors in choosing hospital for intrapartum care. However, final conclusion can only be duduced after multivariate logistic regression analyses.

SB1SP5

THE IMPACT OF RAMADAN FASTING ON HYDRATION STATUS OF TYPE 2 DIABETICS IN KUBANG KERIAN, KELANTAN

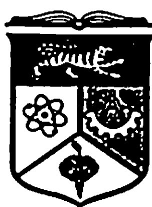
N. Azwany, A.I Aziz, W. Mohammad

[1]*Department of Community Medicine, Department of Medicine, School of Medical Sciences, Health Campus, USM, 16150 Kubang Kerian, Kelantan, West Malaysia, Malaysia*

Objective: Ramadan fasting involves abstaining from all form of oral intake including fluids from the beginning of dawn till sunset. This study aimed to study the impact of Ramadan fasting on the hydration status of type 2 diabetes patients.

Method: A total of 43 Muslims type 2 diabeties on oral hypoglycemic drugs with no renal, cardiovascular and acute complications were studied. Urine osmolarity and blood urea samples were collected on four consecutive visit, four weeks and one week before Ramadan, fourth week of Ramadan and four week after Ramadan. Data were analysed using Repeated Measure ANOVA.

Results: Significant increased in urine osmolarity was noted on fourth week of Ramadan ($p<0.001$) but still in the normal



JABATAN KESIHATAN MASYARAKAT
FAKULTI PERUBATAN
UNIVERSITI KEBANGSAAN MALAYSIA

Sijil Penghargaan

Dengan ini merakamkan ucapan terima kasih dan
setinggi-tinggi penghargaan kepada

DR. ZAHARAH SULAIMAN

kerana telah mengambil bahagian sebagai

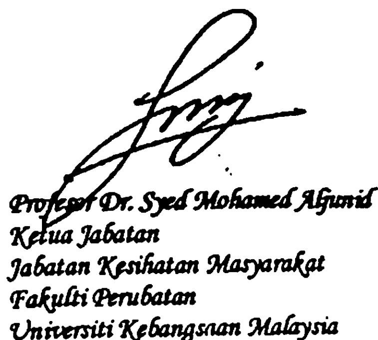
PEMBENTANG
KOLOKIUM KEBANGSAAN KESIHATAN MASYARAKAT KE - XI

Pada :

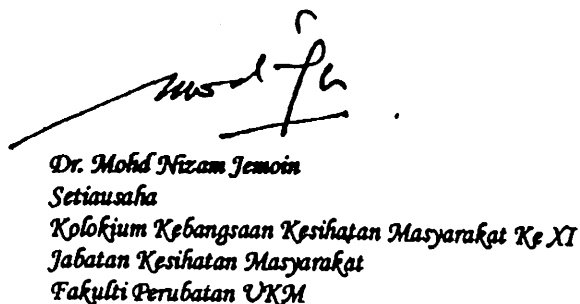
21 - 22* SEPTEMBER *2004

Bertempat di :

HOTEL SUMMIT SUBANG USJ, SELANGOR



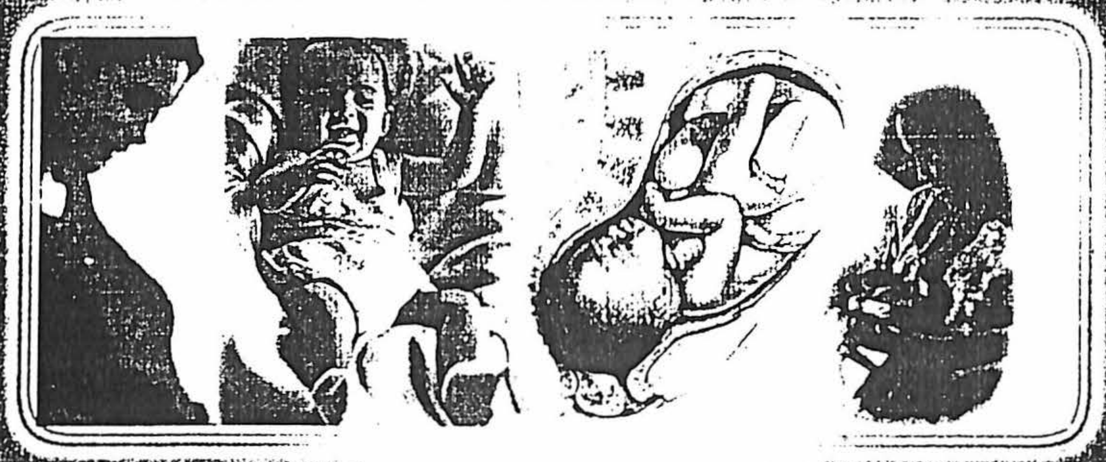
Profesor Dr. Syed Mohamed Aljunid
Ketua Jabatan
Jabatan Kesihatan Masyarakat
Fakulti Perubatan
Universiti Kebangsaan Malaysia



Dr. Mohd Nizam Jemoin
Setiausaha
Kolokium Kebangsaan Kesihatan Masyarakat Ke XI
Jabatan Kesihatan Masyarakat
Fakulti Perubatan UKM

Souvenir Programme

3rd SAFE MOTHERHOOD CONGRESS 2005



" Healthier Mother & Baby in the Era of Advancing Technology "

MAMANEH

February 25th - 27th, 2005
Crown Princess Hotel
Kuala Lumpur.

Organised by
MALAYSIAN ASSOCIATION OF MATERNAL & NEONATAL HEALTH (MAMANEH)

ABSTRACT FOR ORAL PRESENTATION

ANTENATAL MOTHERS' KNOWLEDGE ON THEIR RIGHTS AND PREFERENCES FOR INTRA PARTUM CARE: COMBINED QUANTITATIVE AND QUALITATIVE ANALYSES.

S. Zaharah, M.H. Mohamed Hashim, A. Mazlan & T.Winn
Department of Community Medicine, School Of Medical Sciences, Universiti Sains Malaysia 16150, Kubang Kerian, Kelantan.

INTRODUCTION

Knowing what antenatal mothers prefer but not knowing what they can request will still deny them from getting what they want for their intra partum care.

OBJECTIVES

The objectives were to determine patients' knowledge on their rights and their preferences for intra partum care. A combination of quantitative (questionnaire) and qualitative (focus group discussion) methods was used to analyze the topic.

METHODOLOGY

A cross-sectional study was carried out on 340 Malay women who were recruited from those who attended Women and Child Health Clinics in Kota Bharu district. Data were obtained, using systematic random sampling method from November 2003 to February 2004. The piloted and validated questionnaire consisted of 18 questions, with six questions from each domain (socio economic, knowledge and preference) was administered by a dedicated interviewer.

Following that, focus group discussions (FGD) ere carried out in March 2004. 24 volunteered antenatal mothers were recruited after being consented and agreed to participate in four FGD sessions. Their responses were transcribed and analyzed based on the set of questions directed to them.

RESULTS

Results showed the mean household income was RM1260.00 per month, 68.0% were housewives and 20.0% of respondents studied had tertiary education. On average, only 22.0% of respondents knew their rights by responding to each knowledge domain. Majority of them prefer the delivery to be conducted by female (86.0%) and Muslim doctors (77.0%). Out of the respondents, 78.0% allowed medical and nurse trainees to assist during the delivery but only 10.0% gave more rooms for the trainees to deliver their babies. Surprisingly, only 43.0% of the mothers need pain relief probably influenced by cultural values. Furthermore, 40.0% preferred to be in labor without the presence of their husbands.

CONCLUSION

In order to be treated according to their preferences, antenatal mothers need to be knowledgeable regarding their rights as patients.

Certificate of Attendance

This is to certify that

DR ZAHARAH SULAIMAN

....

has participated in the

3rd SAFE MOTHERHOOD CONGRESS 2005

held on

25th – 27th February 2005

....

(Professor Dr. Nik Mohd Nasri Ismail)
President
MAMANEH 2000

....

(Assoc. Prof. Dr. Zaleha A. Mahdy)
Chairperson
Scientific Committee

FOURTH NATIONAL PUBLIC HEALTH CONFERENCE 2005

"GALVANISING PUBLIC HEALTH INITIATIVES IN ENHANCING POPULATION HEALTH"

15TH - 17TH MARCH 2005
MARRIOTT PUTRAJAYA

GUEST OF HONOUR
YAB DATO' SRI MOHD NAJIB TUN HJ ABDUL RAZAK
DEPUTY PRIME MINISTER OF MALAYSIA

ORGANIZED BY
The Malaysian Public Health Specialists Association
and
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SD2_P6
HEALTH TECHNOLOGY ASSESSMENT: MANAGEMENT OF MODERATELY ELEVATED BLOOD PRESSURE.

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Ministry of Health

Introduction
Hypertension is highly prevalent in both developed and developing countries. Persistent elevation of diastolic blood pressure by 5mm Hg was associated with 34% increased risk of stroke and a 21% increased risk of coronary heart disease.

Objectives
To study the effectiveness, safety, ethical, legal and cost implications of management of moderately elevated blood pressure.

Results
There is sufficient evidence to indicate that moderately elevated BP or mild hypertension should be diagnosed when the diastolic BP is >90 mm Hg or systolic BP exceeds 140 mm Hg. Individuals with borderline BP readings should have their BP monitored for at least 3-6 months before commencing therapy. Treatment should begin with non-pharmacological interventions. There is evidence that drug therapy is beneficial in high risk subjects high normal BP of 130-139/85-89 mm Hg. For other patients the initiation of drug therapy will depend on the presence of risk factors, and the degree of BP lowering achieved with non-pharmacological measures. These measures should be continued for at least 3 months for medium risk group patients and for 6 months for low risk groups before drug treatment is considered.

For non-pharmacological interventions, there is good evidence of benefit of exercise, reduction of alcohol consumption; some evidence on the benefit of low-fat diet rich in vegetables and fruits, weight reduction, sodium restriction; inconclusive evidence on potassium and calcium intake; no evidence of benefit of combinations of non-pharmacological interventions.

For pharmacological treatment, diuretics, beta-blockers angiotensin-receptor blockers, angiotensin converting enzyme inhibitors, calcium channel blockers have been found to be effective in the treatment of moderately elevated BP.

SD2_P7
FACTORS INFLUENCING ANTENATAL MOTHERS' CHOICE OF HOSPITAL FOR DELIVERY AT HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) AND HOSPITAL KOTA BHARU (HKB).

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Objective:
To determine the factors that influence antenatal mothers choice of hospitals for delivery at Hospital Universiti Sains Malaysia (HUSM) and Hospital Kota Bharu (HKB).

Methodology:
A cross sectional study was conducted on 344 Malays, multiparity antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district, from November 2003 to February 2004. Subjects were selected using systematic random sampling. Data were obtained using an interviewer guided, validated and piloted questionnaire. In order to ensure higher inter rater reliability, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, and interpersonal relationship with doctors and nurses, comfort of the patients and their relatives. The data were analyzed using logistic regression.

Results:
The prevalence for choosing HUSM for delivery center was 38.0% and HKB 62.0% respectively. Based on the univariate logistic regression, nine predictors variables were significantly associated with the outcomes, namely health center, previous delivery hospital, distance to hospital, accessibility to hospital, good nursing care, short waiting hours, clean wards, and children friendly. Among these only three factors remained significantly influenced when analyzed through multivariate logistic regression. The final model was tested and it was found fit. The factors derived from the final model were previous delivery hospital, accessibility and children-friendly hospital.

Conclusion:
Based on the multivariate logistic analysis, this study concludes previous delivery hospital, accessibility and children friendly hospital significantly influence the choice of *hospital* for delivery among antenatal mothers in Kota Bharu district.

SD2_P8
WHAT MAKES FOR AN EFFECTIVE HEALTH CARE SYSTEM OR EVEN AN EFFECTIVE HEALTH CARE ORGANIZATION - IS THERE A CONSENSUS?

Prof. Dr. Abdul Razzak bin Mohd Said
Ministry of Health

What is being 'effective'? The answer is as simple as Peter Drucker put it many years ago, it is both 'doing the right thing' and 'doing the things right' (Mintzberg 1991).

However, there is no simple answer or general agreement about makes for an effective healthcare organisation.
The uncertainty about the makes for an effective health care organisation is due to the complexity of healthcare organisation and the relationships amongst the different stakeholders. In the wake of professional scandals and failures in medical care, various forms performance management and audits was introduced into healthcare system and organization in the recognition that some form of control was needed to make the organization more 'effective'.
The most effective organizations are also those characterized by paradoxes- i.e., contradictions, simultaneous opposites, and incompatibilities. Taking account of these characteristics helps explain why so much confusion and disagreement continues to surround effectiveness.

This presentation intends to first describe the theories on health professionals and theories on effectiveness. This is followed by the discussion on reasons for uncertainty about a possible effective healthcare organization. The second part of the presentation will examine whether the uncertainty causes the failure to change, thwarting the attempts in making health care more 'effective'.

SE1_P1
THE PREVALENCE AND ASSOCIATION OF SHIFT WORK AND HYPERTENSION AMONG MALE FACTORY WORKERS IN KOTA BHARU, KELANTAN

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INTRODUCTION: Shift work is one of the work hour systems in which a relay of employees extends the period of production beyond the conventional 8-hour working day. Shift work has been found to be associated with various health problems and there is concern that shift workers are at higher risk to develop risk factors for coronary heart disease (CHD). The study was undertaken to examine relationship between shift work and hypertension as one of the CHD risk factors among male factory workers in a factory in Kota Bharu, Kelantan.

Methods: This study was a contrived cross-sectional study of 76 shift and 72 day workers from one of the factories in Kota Bharu, Kelantan. Data was collected through a Malay language questionnaire on psychosocial and life-style factors, anthropometric and blood pressure measurement, fasting blood sugar and

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THE INFLUENCE OF SOCIO ECONOMIC STATUS ON ANTENATAL MOTHERS' KNOWLEDGE ON THEIR RIGHTS AND PREFERENCES FOR INTRA PARTUM CARE

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ABSTRACT

A cross-sectional study was carried out on 340 Malays antenatal mothers. The objectives were firstly, to determine patients' knowledge on their rights and their preferences for intra partum care. Secondly, to determine the association between selected socio economic variables (education level, occupation and monthly household income) and patients' knowledge on their rights. Lastly, to evaluate the association between selected socio economic variables and their preferences for intra partum care. Antenatal mothers with previous delivery experience in hospital were recruited from those who attended Women and Child Health Clinics in Kota Bharu district. Data were obtained, using systematic random sampling method from November 2003 to February 2004. The piloted and validated questionnaire consisted of 18 questions, with six questions from each domain (socio economic, knowledge and preference) was used as the measurement tool. A trained interviewer with the purpose to increase the inter-rater reliablity of the questionnaire administered that questionnaire. Results showed the mean household income was RM1260.00 per month, 68.0% were housewives and 20.0% of respondents studied had tertiary education. On average, only 22.0% of respondents knew their rights by responding to each knowledge domain. Majority of them prefer the delivery to be conducted by female (86.0%) and Muslim doctors (77.0%). Out of the respondents, 78.0% allowed medical and nurse trainees to assist during the delivery but only 10.0% gave more rooms for the trainees to deliver their babies. Surprisingly, only 43.0% of the mothers need pain relief probably influenced by cultural values. Furthermore, 40.0% preferred to be in labor without the presence of their husbands. Statistical analysis was performed by using SPSS Version 11.0 and findings showed there were significant associations ($p<0.05$) between all socioeconomic factors and ante natal mothers' knowledge on their rights but otherwise with preferences for intra partum care. In conclusion, socioeconomic factor influence antenatal mothers' knowledge on their rights but not in preferences for intra partum care.

INTRODUCTION

Malaysia Health Vision 2020 is to be a country with nation of healthy individuals, families and communities. In order to achieve this vision the characteristics of future healthcare system should be equitable, affordable, technologically appropriate, environmentally adaptable and consumer friendly. Besides that, the future healthcare system should emphasis on quality, innovative, health promotion, respect for human dignity, promotion of individual responsibility and promotion of community participation (Suleiman and Jegathesan, 2000).

A high level/status of living and health must be created among the citizens so that the country's social and economic development becomes more meaningful. Realizing the importance of healthy lifestyles among the antenatal mothers, it is important to know if they are aware of their rights as patients. Having the knowledge on patients' right will make them more responsible for their own health, thus empowered then in making decision (Khan *et al.*, 1994).

OBJECTIVES

The current study aimed to fulfill the following objectives. Firstly, to determine patients' knowledge on their rights and their preferences for intra partum care. Secondly, to determine the association between their selected socio economic status (education level, occupation and monthly household income) and patients' knowledge on their rights. Lastly, to evaluate the association between selected socio economic variables and their preferences for intra partum care.

METHODOLOGY

A cross sectional study was conducted on 340 Malays, antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district. Only Malaysian antenatal mothers with previous delivery experience at public hospitals in Kota Bharu district were recruited. Data were obtained, using systematic random sampling method from November 2003 to February 2004. The piloted and validated questionnaire consisted of 18 questions, with six questions (1-6) from each domain (A-C) was used as the measurement tool. (A1-A6: Socio economic, B1-B6: Knowledge and C1-C6: Preference). A trained interviewer with the purpose to increase the inter-rater reliability of the questionnaire administered that questionnaire.

RESULTS

The mean household income of the respondents was RM 1260:00 a month. 68.0 % were housewives and only 20.0 % had tertiary education.

Patients' knowledge on their rights

Based on the six questions (B1-B6) related to patient's knowledge on their rights, on the average only 22.0 % of respondents had knowledge on their rights as shown in the Figure 1 below. "Yes" means they had the knowledge on their rights and "No" means otherwise.

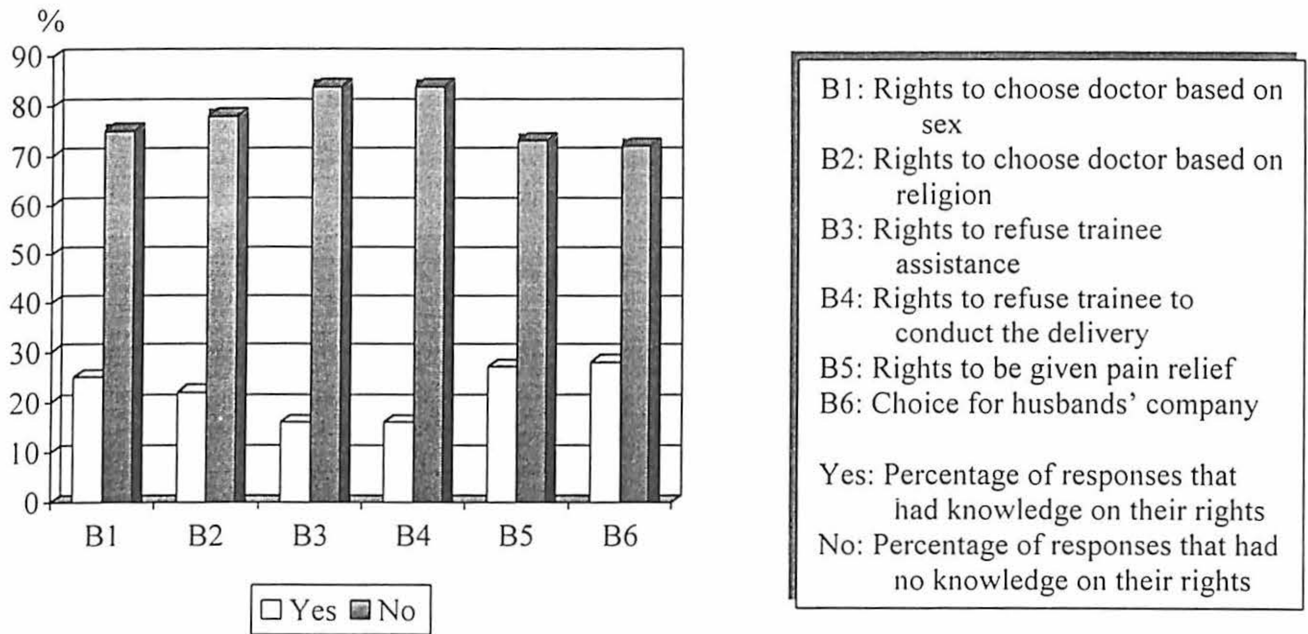

Figure 1: Percentage of responses on patients' knowledge on their rights questions

Patients' preferences for intra partum care

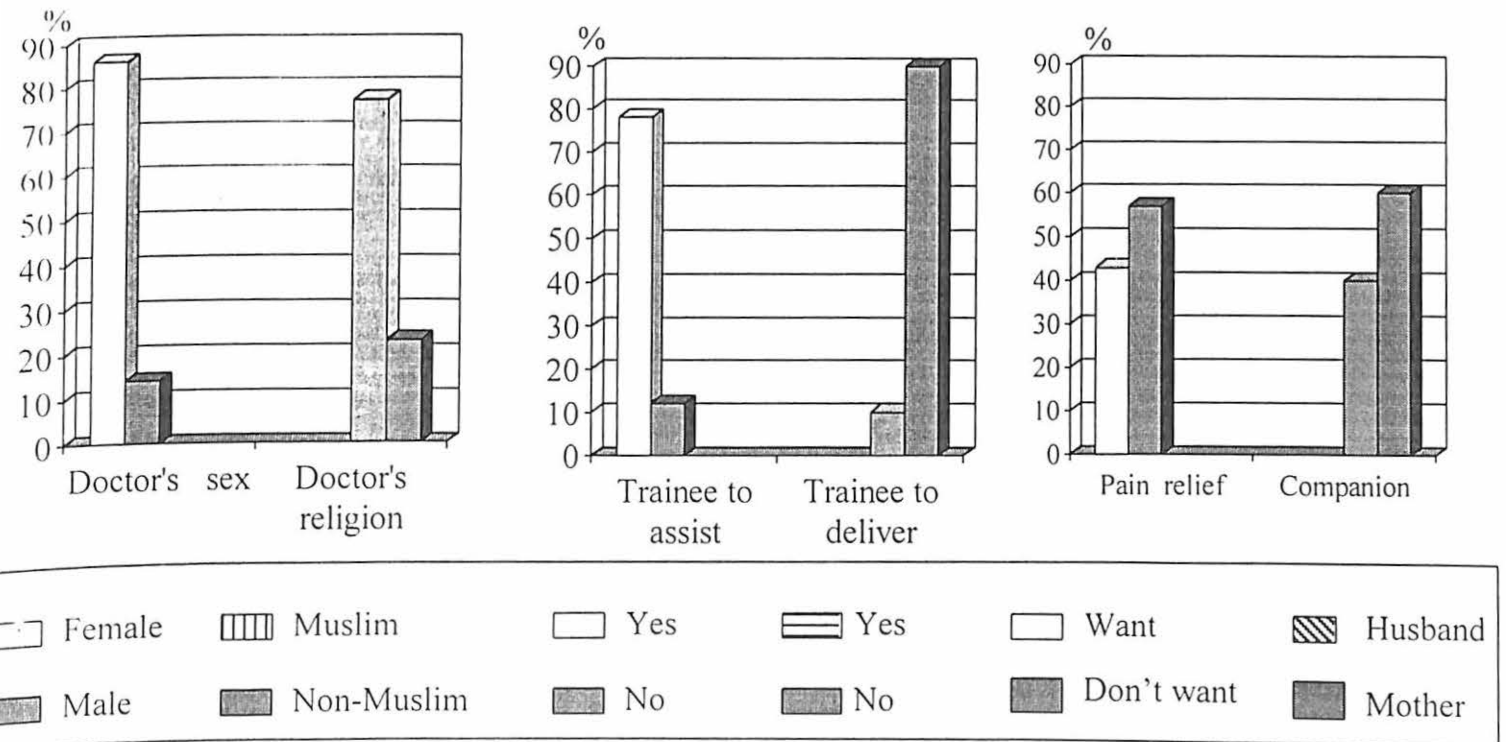

Figure 2: Percentage of responses on patients' preferences for intra partum care

The questions on preferences included were related to doctor's sex and religion, trainees' involvements during labor, pain relief and relative's preferences during labor. If they were given choices, these women preferred the delivery to be conducted by female (86.0 %) and Muslim (77.0 %) doctors. 78.0 % agreed medical and nurse trainees should

only assist in the delivery and only 10.0 % allowed trainees to deliver their babies. Surprisingly, only 43.0 % preferred to be given pain relief in labor. While only 40.0% of them requested their mothers, 60.0 % requested husbands accompanying them in labor. Their preferences are tabulated in Figure 2 above.

Association between socio economic status and knowledge on patients' rights and preferences for intra partum care

Chi square tests were carried out between each socioeconomic parameter with the knowledge score. The results showed there was a significant association ($p<0.05$) between socioeconomic status and patients' knowledge on their rights. On the other hand, the results showed, there was no significant association ($p>0.05$) between socioeconomic status and patients' preferences for intra partum care.

DISCUSSION

Regardless of their socio economic background, women had similar preferences for intra partum care. If these women were given the choices, they would chose to be delivered by female doctors compared to male. Besides, they also prefer doctors of the same religion with them. Trainees were considered as friendly enough to assist the delivery. However, they were not trusted to conduct the delivery. Interestingly, majority of them wanted to be accompanied by their mothers instead of their husbands while in labor. Besides, pain reliefs were not considered important as many would like to experience the labor naturally.

On the other hand, knowledge on patient's rights was significantly related to socio economic status ($p<0.05$). Highly educated mothers, who were employed and had higher household income scored much higher in this aspects. A similar finding was found in Pakistan, (Khan *et al.*, 1994), where educated literate women with middle school education are more likely than their illiterate counterparts to utilize modern medical professionals for both prenatal care and delivery. Hundley and Ryan (2004) found knowledge did influence preferences for intrapartum care in their study subjects.

CONCLUSION

Socioeconomic status influences antenatal mothers' knowledge on their rights, but not their preferences for intra partum care.

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FACTORS INFLUENCING ANTENATAL MOTHERS CHOICE OF HOSPITAL FOR DELIVERY AT HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) AND HOSPITAL KOTA BHARU (HKB)

S. Zaharah, M.H. Mohamed Hashim, A. Mazlan & T. Winn
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ABSTRACT

The objective of this paper is to determine the factors that influence antenatal mothers choice of hospitals for delivery at Hospital Universiti Sains Malaysia (HUSM) and Hospital Kota Bharu (HKB). A cross sectional study was conducted on 344 Malays, multiparity antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district, from November 2003 to February 2004. Subjects were selected using systematic random sampling. Data were obtained using an interviewer guided, validated and piloted questionnaire. In order to ensure higher inter rater reliability, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, and interpersonal relationship with doctors and nurses, comfort of the patients and their relatives. The data were analyzed using logistic regression. The prevalence for choosing HUSM for delivery center was 38.0% and HKB 62.0% respectively. Based on the univariate logistic regression, nine predictors variables were significantly associated with the outcomes, namely health center, previous delivery hospital, distance to hospital, accessibility to hospital, good nursing care, short waiting hours, clean wards, and children friendly. Among these only three factors remained significantly influenced when analyzed through multivariate logistic regression. The final model was tested and it was found fit. The factors derived from the final model were previous delivery hospital, accessibility and children-friendly hospital. Based on the multivariate logistic analysis, this study concludes previous delivery hospital, accessibility and children friendly hospital significantly influence the choice of hospital for delivery among antenatal mothers in Kota Bharu district.

INTRODUCTION

The selection of a hospital for obstetrical care does not become an issue for women until they become pregnant. Obstetrics patients tend to develop various expectation and preferences for intrapartum care as the result of their own experience(s) or experience(s) of others (Hundley and Ryan, 2004). This is because word of mouth plays a significant role in the decision-making process (Morgan *et al.*, 1999). Many studies showed that previous delivery experiences are among the most influencing factors in choosing a delivery center. Women who are satisfied with the service provided and are comfortable with the hospitality are likely to utilize the services. Satisfaction is achieved when the perception of quality of care and services they received in health care setting has been positive, satisfying, and meets their expectations (Yellen *et al.*, 2002). A study in Sweden showed women who are more educated tend to choose birthing center that provide continuity of care (Waldenstrom and Nilsson, 1993) The distance to the maternity hospital has been reported to be more important in maternity care than other general health services. Long travel time is a considerable barrier to access to delivery facilities. They do not indicate that quality improvements at existing facilities would overcome the barrier of distance and travel time (Hodgkin,1996). Reviewed

articles by Marshall *et. al.*, (1995) found that patients were more concerned about the interpersonal relationship, especially quality of communication. Single room occupancy and husband friendly were then considered important.

Obstetrics service provider in Kota Bharu can be divided into public and private sectors. There are only 2 public birthing centers in Kota Bharu district, a general hospital, HKB and a teaching hospital, HUSM. These two centers cater approximately 90.0 % of all obstetrics cases in Kota Bharu (Seman, 2004, pers comm, 2 March). The table below summarized the resources and workload at HUSM and HKB Obstetrics Department (Seman, 2004, pers comm, 2 March).

Table 1: Obstetrics resources and workload at HUSM and HKB for 2003/2004

	Obstetrics Resources and Workload	**HUSM**	**HKB**
RESOURCES	No of Specialist/Consultant	12	8
	No of Medical Officer	26	7
	No of House Officer	8	6
	No of patient per staff nurse at labor room	1.5	3
	No of supporting staff at labor room	5	4
	No of beds in labor room	10	15
	No of beds in antenatal and postnatal wards	98	144
WORKLOAD	Average no of total delivery per month	500-700	1100-1300
	Bed occupancy rate (BOR) in labor room (%)	60-70	110 - 120
	Bed occupancy rate (BOR) in wards (%)	50 - 60	110 - 120

OBJECTIVE

The objective of this study was to determine the factors influence antenatal mothers' choice of hospital for delivery at HUSM and HKB.

METHODOLOGY

A cross sectional study was conducted on 344 Malays, multiparity antenatal mothers who attended selected Women and Child Health Clinics in Kota Bharu district, from November 2003 to February 2004. Only Malaysian and women with previous delivery experiences at public hospitals in Kota Bharu were selected using systematic random sampling. Data were obtained using an interviewer guided, validated and piloted questionnaire. In order to ensure higher inter rater reliability, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, and interpersonal relationship with doctors and nurses, comfort of the patients and their relatives. All the data were entered into the SPSS (version 11.0; SPSS Inc, Chicago) software and transferred using the Stat Transfer (version 6; Circle Systems Inc, Seattle) into the Intercooled Stata (version 7.0, Stata Corp, Texas) software packages for analyses. Proportion of respondents choosing these two hospitals were determined. The data were analyzed using logistic regression to determine the factors influencing hospital choice for delivery.

RESULTS

Only 37.3 % of respondents choose to deliver at HUSM for their current pregnancy. However, majority of them (62.7%) choose to deliver at HKB. The respondents who choose

HUSM and HKB were socio demographic as there was no significant association ($p>0.05$) between hospital choice and socio demographic characteristics as shown in Table 2 below.

Table 2: Demographic variables of antenatal mothers who choose HUSM and HKB

Demographic Variables	**HUSM**		**HKB**		***df***	***(Chi Square)***
	no	***%***	***no***	***%***		***[a]p-value***
Education						
Primary	39	11.3	63	18.3		
Secondary	64	18.7	114	33.1	2	(0.79)
Tertiary	27	7.8	37	10.8		0.67*
Occupation						
Housewife	95	27.6	138	40.1	1	(2.8)
Working	35	10.2	78	22.1		0.09*
Household Income						
<RM 500	36	10.5	52	15.1	2	
RM 500 - 1300	53	15.4	91	26.5		(2.70)
> RM 1300	41	11.9	71	20.6		0.44*

*p > 0.05
[a] Pearson's Chi-square test

Table 3: Factors influencing antenatal mothers choice of hospital for delivery

Variables	**Adjusted Odds Ratio**	**95 % CI**		**LR statistics (*df*)**	****p-value***
Previous delivery hospital					
HUSM	1.00	-	-	333.66	<0.001
HKB	19.85	5.9012	66.7924		
Easier to reach hospital					
HUSM	1.00	-	-	347.01	<0.001
HKB	10.33	3.1339	34.1032		
Convenience for relatives					
Children friendly	1.00	-	-	272.98	<0.001
Not children friendly	0.0058	0.00126	0.0268		

**p-value* for LR statistics

Based on the univariate logistic regression, nine predictors variables were significantly associated with the outcomes, namely health center, previous delivery hospital, distance to hospital, accessibility to hospital, good nursing care, short waiting hours, clean wards, and children friendly. Among these only three factors remained significantly influenced when analyzed through multivariate logistic regression as shown in Table 3 above. The final model was tested and it was found fit. The factors derived from the final model were previous delivery hospital, accessibility and children-friendly hospital.

DISCUSSION

It is distinctly clear that HKB policy allowing children to visit their mothers in the wards is heavily influencing the hospital choice for delivery. This factor is very unique to the Kelantanese which no previous studies had interest on it. It is postulated this scenario is

related to the Kelantån cultural and behavior practice. It is common to observe the scenario at hospitals in Kelantan, whereby the family members of patients hanging around the wards outside visiting hours and even sleep overnight at the corridor. HKB management team is very sensitive to the needs of their clients. Realizing how important this factor is, HKB make the regulation, which allows children visitors under the age of twelve. HUSM on the other hand hold to this idea. Their major concern is safety of the patients. Knowing children are difficult to controlled and with previous accidental events in the wards related to the children, HUSM still practice no children visitor policy.

It is not surprising that easy accessibility to the hospital is important factors as mentioned by (Hodgkin, 1996). HKB compared to HUSM is easily reached by public transport. Public transport is cheaper and easily accessible to Kota Bharu city center than to Kubang Kerian suburb. The respondents also found important to be familiar with the environment for delivery. Recognizing this factor make these women more prone to choose the center where they had deliveries experiences. Besides it is easy for them, more important it is easy for their family members who will accompany them while warded. It is a norm to the Kelatanese to bring along their family members as a way to show their emotional and moral support while they play the sick role (Clark, L. A., *et. al,* 1993). Factor related to satisfaction with the nursing care was excluded in the final model. It other words, factor on satisfaction with the nurses were not found to be an important determinant in choosing hospital for delivery. This finding was not in agreement with much previous research. Women who are satisfied with the service provider and are comfortable with the hospitality are likely to utilize the services as claimed by Yellen *et. al,* (2002). Besides that, they would also tend to promote the center to their friends and relatives (Marshall *et. al,* 1995).

CONCLUSION

Based on the multivariate logistic analysis, this study concludes previous delivery hospital, accessibility and children friendly hospital significantly influence the choice of hospital for delivery among antenatal mothers in Kota Bharu district.

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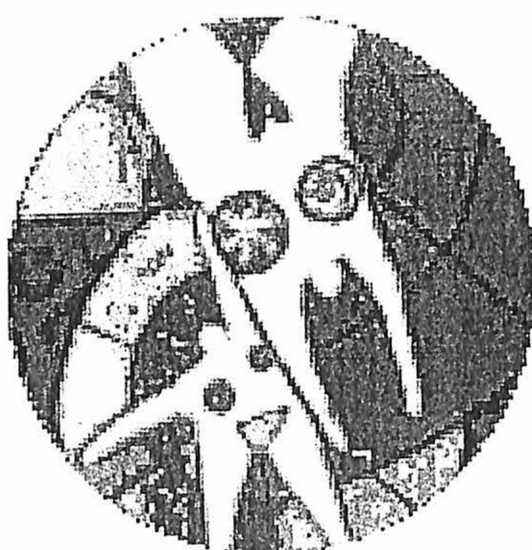

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WOMEN'S ACTION AND RESOURCE INITIATIVE

BANGKOK, THAILAND

Tran Trong Duc (Head, National Academy of Public Administration, Vietnam) "Activities of Sweden-Denmark Gender Fund in Vietnam 2004"

This paper provides background of the Sweden-Denmark Gender Fund and discusses the advantages and difficulties encountered while implementing the fund.

Elin Bjarnegard (Ph.D. Candidate, Uppsala University, Sweden) "Gendering the Thai Parliamentary Election 2005"

Political parties and the advent of multipartyism have traditionally been central to the process of democratization and democratic consolidation. Parties are also commonly pointed out as the most important gatekeepers with regard to improved representation of excluded and disadvantaged groups. (Norris 1996; Dahlerup 2003) These two developments, democratization and political equality, are thus theoretically closely related, but, as the proposed paper will demonstrate, not always so in practice. The internal procedures of the political parties are not always reformed as a consequence of the external rules of the game being altered. A close study of election party politics in the emerging democracy of Thailand will illustrate this fact.

This paper more specifically analyzes the outcome of the Thai parliamentary election of 2005 from a gender perspective. This is the second election held under the new constitution, a constitution that was drafted to decrease corruption and increase participation. A gender analysis of candidates for this election shows that these aims have not yet been attained. As party candidacy to a large extent is still based on a patronage system, women, who seldom serve as patrons in the rural areas, are excluded. The paper will also highlight some of the mechanisms that the political parties utilize, whether consciously or not, to preserve the status quo on the political arena. This paper presents the first draft ideas of my ongoing dissertation research project on democratization and gender in a larger perspective.

PANEL V : GENDER AND HEALTH

Zaharah Sulaiman (School Of Medical Sciences, Universiti Sains Malaysia, Kelantan) "The Influence of Socio Economic Status on Antenatal Mothers' Knowledge on Their Rights and Preferences For Intra Partum Care"

A cross-sectional study was carried out on 340 Malays antenatal mothers. The objectives were firstly, to determine patients' knowledge on their rights and their preferences for intra partum care. Secondly, to determine the association between selected socioeconomic status (education level, occupation and monthly family income) and patients' their knowledge on the rights. Lastly, to evaluate the association between socioeconomic variables and their preferences for intra partum care. Antenatal mothers with previous delivery experience in hospital were recruited from those who attended Women and Child Health Clinics in Kota Bharu district. Data were obtained, using systematic random sampling method from November 2003 to February 2004. The piloted and validated questionnaire consisted of 18 questions, with six questions from each domain (socioeceonomic, knowledge and preference) was used as the measurement tool. A trained interviewer with the purpose to increase the inter-rater reliablity of the questionnaire administered that particular set of questionnaire. Results showed the mean household income was RM1260.00 per month, 68.0% were housewives and 20.0% of respondents studied had tertiary education. On average, only 22.0% of respondents knew their rights by responding to each knowledge domain. Majority of them prefer the delivery to be conducted by female (86.0%) and Muslim doctors (77.0%). Out of the respondents, 78.0% allowed medical and nurse trainees to assist during the delivery but only 10.0% gave more rooms for the trainees to deliver their babies. Surprisingly, only 43.0% of the mothers need pain relief probably influenced by cultural values. Furthermore, 40.0% preferred to be in labor without the presence of their husbands. Statistical analysis was performed by using SPSS Version 11.0 and findings showed there were significant associations ($p<0.05$) between all socioeconomic factors and ante natal mothers' knowledge on their rights but otherwise with preferences for intra partum care. In conclusion, socioeconomic factor influence antenatal mothers' knowledge on their rights but not in preferences for intra partum care.

on the number of women candidates and elected Members of Parliament. This is the second election held under the new constitution, a constitution that was drafted to decrease corruption and increase participation and that introduced, among other things, a new election system to ensure this. A gender analysis of candidates for this election shows that these aims have not yet been attained.

Still 10% : Thailand constitutes an interesting example for the study of women's participation in politics and in political parties for several reasons. First, many of the societal prerequisites for women's political participation seem to be there. Women are clearly out in the public world, Thai women are as educated as are Thai men, and the percentage of women in the workforce is the highest in Asia. Yet, political representation of women at most levels remain at around 10%. Recent data shows that this was the case also in the general election of 2005.

Election system: Many analysts point out the importance of the election system to ensure an increased participation of women in Parliament. Thailand constitutes a perfect example to test the well-established proposal that proportional systems are more conducive to women's participation than are majoritarian systems since 100 out of the 500 Members of Parliament are elected from a Party List (proportional system) whereas the remaining 400 are elected on a constituency basis (majoritarian). This analysis will show that the difference between the two systems in Thailand is not very big and in some cases even the reverse. The Thai Rak Thai party actually had a higher percentage of women candidates in its constituencies than on the party list. The failure of the party list system to lead to a more inclusive political arena becomes especially evident when taking into account related factors, such as the ranking on the party list - which highly affects the possibility of gaining a seat.

Tentative explanations: Tentative explanations for this continued exclusion of women by political parties, drawn from interviews with strategic persons, will also be briefly hinted at during the presentation. These explanations tend to focus on the direct and indirect mechanisms utilized by political parties, whether consciously or not, to preserve the status quo of the actors on the political arena. One possible explanation could be that party candidacy, especially in the rural areas, is still, to a large extent, based on a patronage system. Women, who seldom serve as patrons in the rural areas are thus not seen as a winning candidate in a constituency where the outcome is based on patron-client relationships. Another potentially important explanation is the rather special function of the party lists in Thailand.

PANEL V : GENDER AND HEALTH

INFLUENCE OF SOCIO ECONOMIC STATUS ON ANTENATAL MOTHERS' KNOWLEDGE ON THEIR RIGHTS AND PREFERENCES FOR INTRA PARTUM CARE

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1.0 Abstract

This paper presents a study that had the objectives of firstly, to determine patients' knowledge on their rights and their preferences for intra partum care. Secondly, it is to determine the association between selected socio economic variables (education level, occupation and monthly household income) and patients' knowledge on their rights. Lastly, to evaluate the association between selected socio economic variables and cultural values on their preferences for intra partum care.

The study took place in 2 phases from November 2003 until March 2005. In phase one, a cross-sectional study was carried out on 344 Malay multiparity antenatal mothers. The piloted and validated questionnaire consisted of three domain (socio economic, knowledge and preference) was used as the measurement tool. In order to ensure the quality of interviews, only one trained

interviewer involved in data collection. Focus Group Discussions (FGD) was carried out in phase two involving 24 volunteered antenatal mothers were recruited after being consented and agreed to involve in this study.

Results showed the mean household income was RM1260.00 per month, 68.0% were housewives and 20.0% of respondents' studied had tertiary education. On average, only 22.0% of respondents knew their rights by responding to each knowledge domain. Statistical findings showed there were significant associations ($p<0.05$) between all socioeconomic factors and ante natal mothers' knowledge on their rights but otherwise with preferences for intra partum care. The findings in FGD support the above findings and were able to extract the underlying facts.

In conclusion, socioeconomic and cultural factors influence antenatal mothers' knowledge on their rights but not in preferences for intra partum care. In order to be treated according to preferences, antenatal mothers need to be knowledgeable regarding their rights as patients. The healthcare providers need to ensure antenatal mothers' are educated regarding their rights to information and educations are fulfilled.

2.0 Introduction

Malaysia maternal mortality rate has markedly reduced in 40 years from 282 per 100,000 live births in 1957 down to only 20 per 100,000 live births in 1997 (Pathmanathan I, 2003). This figures is among the lowest compared to other developing countries. Lower mortality rate were achieved due to better service accessibility and improvement in quality health care. Achieving lower mortality rate however, does not reflect anything on reproductive rights.

There are many rights that are related to promote safe motherhood. They can be clustered into mainly rights relating to life, survival and security of the person, rights relating to maternal health, rights to non-discrimination and due respect for differences and rights relating to information and education. However, this paper only focuses on the rights relating to information and education in intra partum care (Cook R. J., 2001).

Traditionally, the rights to information have been understood to guarantee freedom to seek, receive and impart information and ideas free from government interference. The rights to information itself and regarding access to reproductive health services in particular are two pf the most vital reproductive rights. To make informed choices about their reproductive rights, women need to be able to receive information on family planning methods and services, and have access to methods and services they find preferable.

To date, there is no specific study in Malaysia looking at the rights of antenatal mothers to knowledge and information related to intra partum care.

2.1 Socio economic and demographic background of study area

Kelantan has a population of about 1.4 million comprising multiethnic Malay, Chinese, Indians, Siamese and other races. Malay makes up about 94.0 % of the population (Department of Statistics, 2001). Since all Malay are Muslim, Islam is the main religion. Kelantan is the only state that is governed by an opposition political party, and yet enjoys a very good relationship with the Federal Government. The mean monthly household income for Kelantan is RM 1,314:00, which is the lowest compared to other states in Malaysia. (Kelantan State Report, 2002). Therefore it is not surprising the public obstetrics care services are heavily utilized as they only imposed minimum user fee charges.

The average fertility rate in Malaysia is 3.1 children born per woman and the annual population growth rate is 2.1 %. (Planning Division, 2004). In Kelantan, the growth rate is approximately 2.8 % per annum. Besides, it also has a higher fertility rate, i.e. 5.1 children borne in every woman.

Obstetrics service provider in Kota Bharu can be divided into public and private sectors. There are two private hospitals and a few birthing centers but they are much underutilized. Besides, there are only two public birthing centers in Kota Bharu district, a general hospital (the main hospital), Hospital Kota Bharu (HKB) and a teaching hospital, Hospital Universiti Sains Malaysia (HUSM). These two centers cater approximately 90.0 % of all obstetrics cases in Kota Bharu and also referral centers for other districts. (Seman, 2004, pers comm, 2 March).

HKB has integrated antenatal and postnatal wards whereby the patients are placed in the same ward pre and post delivery, which is considered convenience for the women. This hospital policy has made HKB a favorite hospital in Kota Bharu among the antenatal mothers for delivery (Zaharah S., 2004). On the other hand HUSM has separate antenatal and postnatal wards. Both hospitals have been appointed as husband friendly in the last few years because husbands are allowed to accompany their wives during labor. This policy was put in place in order to encourage husbands' participation and involvement in the delivery process, which is not a common practice. Besides, paternal leave has been extended from three days to seven days.

2.2 Cultural values in delivery practice

In 1991, the rate for hospital delivery in Kelantan ranged from 35.0% to 65.0 % from districts to district. For those who choose home delivery, trained midwife plays an important role and acted as the health personnel. Besides, delivering at home would make the delivery a natural process surrounded by family members. It is not a norm to openly discuss regarding birth delivery experience even amongst the women (Clark, L A, 1993).

It is culturally accepted in Malaysia, husbands have very little involvement with the doctors or midwifes during their wife's pregnancy. Their young children accompany most women who come for antenatal check up. Most women in Kelantan decision on choosing center for delivery are much influenced by their previous experiences and surrounding environment. Although, the husbands are usually around, they are not present in the delivery room.

However, the situations have much changed now. Hospital has become a common place for delivery. A small number still delivers at home. However, the doctors must certify them low risk before they can choose home delivery. Even though hospitals nowadays are husband friendly, still many do not take up the opportunity to be with the wife during labor. Women are not expected to request or ask for any favor during delivery especially if they deliver at public hospitals. They belief, being at the receiver, they usually accept without many questions. Only some who knows their rights dares do so.

3.0 OBJECTIVES

The current study aimed to fulfill the following objectives. Firstly, to determine patients' knowledge on their rights and their preferences for intra partum care. Secondly, to determine the association between their selected socio economic status (education level, occupation and monthly household income) and patients' knowledge on their rights. Lastly, to evaluate the association between selected socio economic variables and cultural values on their rights and preferences for intra partum care.

4.0 Methodology

4.1 Phase One

In phase one, a cross sectional study was conducted on 340 Malay, antenatal mothers who attended selected Mother and Child Health Clinics in Kota Bharu district. Only Malay antenatal mothers with previous delivery experience at public hospitals in Kota Bharu district were recruited. Data were obtained, using systematic random sampling method from November 2003 to February 2004. A few experts justified the content validity. The piloted and validated questionnaire consisted of 18 questions, with six questions (1-6) from each domain (A-C) was used as the measurement tool. (A1-A6: Socio economic, B1-B6: Knowledge and C1-C6: Preference). In order to ensure the quality of interviews, only one trained interviewer involved in data collection.

4.2 Phase Two

Following phase one, Focus Group Discussions (FGD) was carried out in phase two in March 2004. FGD was carried out purposely to probe framework questions in more details, which cannot be explored through questionnaire. To fulfill this objective, 24 volunteered antenatal mothers who had involved in phase one, were recruited in this phase after being consented and agreed to involve in this study. Four FGD sessions, each group consisted of six participants were conducted. Their responses were transcribed and analyzed based on the set of questions directed to them. The FGD research team consisted of a moderator, transcriber, an observer and a technician whereby all of them have had exposure and experience in conducting FGD.

The designed framework questions for FGD were based on the answered given by the respondents in Phase One. By exploring this area extensively, we were able to know the true picture of this study. There were four basic framework questions asked during each session as shown below:

a. Do you know your rights as patients?
b. Do you think it is important for the hospital to allow husbands/ family members to accompany the women during labor?
c. What are your opinions regarding the trainees involvement in labor?
d. Would you like to deliver at other hospital?

5.0 Results

5.1 Demographic characteristics

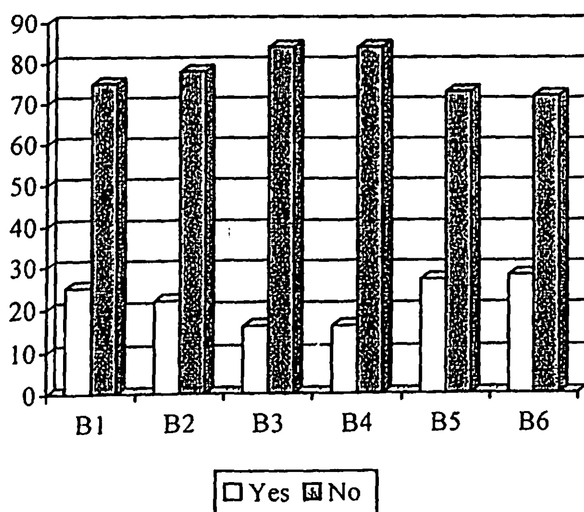
Only 32.6% of the respondents have monthly family income above average, more than RM1, 300:00. Approximately 68.0 % were housewives and only 18.6 % had secondary and above education. Similar education levels were found for their spouses as shown in Table 1.0 below.

Table 1.0: Socio demographic characteristics of the respondents (n=344)

Characteristic	Mean	SD	Frequency	%
Age				
Respondent	32.0	5.6		
Spouse	36.6	6.8		
Education level				
Respondent				
Primary & below			280	81.4
Secondary and above			64	18.6
Spouse				
Primary & below			272	79.1
Secondary and above			72	20.9
Occupation				
Respondent				
Housewife			231	67.2
Working			113	32.8
Spouse				
Self employed			136	39.5
Working			208	60.5
Monthly Family Income				
< RM 500.00			88	25.6
RM 500.00-1300.00			144	41.9
>RM1300.00			112	32.6

5.2 Patients' knowledge on their rights

Based on the six questions (B1-B6) related to patient's knowledge on their rights, on the average only 22.0 % of respondents had knowledge on their rights as shown in the Figure 1.0 below. "Yes" means they had the knowledge on their rights and "No" means otherwise.



B1: Rights to choose doctor based on sex
B2: Rights to choose doctor based on religion
B3: Rights to refuse trainee assistance
B4: Rights to refuse trainee to conduct the delivery
ghts to be given pain relief
oice for husbands' company

igure 1.0: Percentage of responses on patients' knowledge on their rights questions

5.3 Patients' preferences for intra partum care

The six questions on preferences included were related to doctor's sex and religion, trainees' involvements during labor, pain relief and relative's preferences during labor. If they were given choices, these women preferred the delivery to be conducted by female (86.0 %) and Muslim (77.0 %) doctors. 78.0 % agreed medical and nurse trainees should only assist in the delivery and only 10.0 % allowed trainees to deliver their babies. Surprisingly, only 43.0 % preferred to be given pain relief in labor. While only 40.0% of them requested their mothers, 60.0 % requested husbands accompanying them in labor.

5.4 Association between socio economic status and knowledge on patients' rights and preferences for intra partum care

Chi square tests were carried out between each socioeconomic parameter (education level, occupational status and household income) with all six knowledge variables. The same Chi square tests were carried out between each socioeconomic parameter (education level, occupational status and household income) with all six preferences variables. Overall, we can see that the results showed a significant association ($p<0.05$) between socioeconomic status and most variables on patients' knowledge on their rights. On the other hand, the results showed, there was no significant association ($p>0.05$) between socioeconomic status and most variables on patients' preferences for intra partum care. These results are tabulated in the table 2.0 and 3.0 below.

Table 2.0 Associations between knowledge variables and socio economic characteristics.

Knowledge Variables	High Education		Low Education		*p-value (Chi Square)
	no	%	no	%	
Doc's sex					
Yes	60	17.5	27	7.8	<0.001
No	220	64.0	37	10.7	(11.818)
Doc's religion					
Yes	51	14.8	25	7.4	<0.001
No	229	66.5	39	11.3	(13.155)
Trainee assistant					
Yes	36	10.2	19	5.5	<0.001
No	245	71.2	45	13.1	(11.629)
Trainee deliver					
Yes	34	9.9	19	5.5	<0.001
No	248	71.5	45	13.1	(12.303)
Pan relief					
Yes	75	21.9	19	5.5	0.639
No	205	59.5	45	13.1	(0.221)
Husband's company					
Yes	7	22.4	20	5.8	0.547
No	203	59.0	44	12.8	(0.362)
Knowledge Variables	**Housewife**		**Employed**		**(Chi Square) *p-value**
	no	%	no	%	
Doc's sex					
Yes	45	13.1	42	12.2	<0.001
No	186	54.0	71	20.7	(12.564)
Doc's religion					
Yes	39	11.3	37	10.8	<0.001
No	192	55.8	76	22.1	(11.090)
Trainee assistant					
Yes	30	8.7	24	7.0	0.048
No	201	58.5	89	25.8	(3.905)
Trainee deliver					
Yes	29	8.4	24	7.0	0.036
No	202	58.7	89	25.8	(4.391)
Pan relief					
Yes	64	18.6	30	8.7	0.821
No	167	48.5	83	24.2	(0.051)
Husband's company					
Yes	62	18.0	35	10.2	0.042
No	169	49.2	78	22.6	(0.640)
Knowledge Variables	**Income average and below**		**Income above average**		**(Chi Square) *p-value**
	no	%	no	%	
Doc's sex					
Yes	47	13.7	40	11.5	0.002
No	185	53.8	72	21.0	(9.550)

Doc's religion					
Yes	40	11.5	36	10.5	0.002
No	192	55.9	76	22.1	(9.745)
Trainee assistant					
Yes	28	8.1	26	7.6	0.008
No	204	59.3	86	25.0	(7.090)
Trainee deliver					
Yes	27	7.8	26	7.6	0.005
No	205	59.6	86	25.0	(7.767)
Pan relief	65				
Yes	167	13.0	29	8.4	0.679
No		48.4	83	24.2	(0.172)
Husband's company	68				
Yes	164	19.8	29	8.4	0.509
No		47.6	83	24.2	(0.436)

Table 3.0 Associations between preferences variables and socio economic variables

Preferences Variables	High Education		Low Education		*p-value (Chi Square)
	no	%	no	%	
Doc's sex					
Male	42	12.2	5	1.5	0.131
Female	238	69.1	59	17.2	(2.281)
Doc's religion					
Muslim	71	20.7	8	2.3	0.027
Non Muslim	209	60.7	56	16.3	(4.858)
Trainee assistant					
Yes	66	19.2	10	2.9	0.167
No	214	62.2	54	15.7	(1.911)
Trainee deliver					
Yes	254	73.8	56	16.3	0.437
No	26	7.6	8	2.3	(0.604)
Pan relief					
Yes	156	45.4	37	10.8	0.760
No	124	36.0	27	7.8	(0.093)
Husband's company					
Yes	120	34.9	21	6.1	0.140
No	160	46.5	43	12.5	(2.173)
Preferences Variables	**Housewife**		**Employed**		***p-value (Chi Square)**
	no	%	no	%	
Doc's sex					
Male	34	9.9	13	3.8	0.415
Female	197	57.3	100	29.0	(0.665)
Doc's religion					
Muslim	57	16.6	22	6.4	0.281
Non Muslim	174	50.6	91	26.4	(1.163)
Trainee assistant					
Yes	55	16.0	21	6.1	0.273
No	176	51.2	92	26.7	(1.204)
Trainee deliver					
Yes	216	62.8	94	27.4	0.003
No	15	4.4	19	55.2	(9.074)
Pan relief					
Yes	131	38.1	62	18.0	0.764
No	100	29.1	51	14.8	(0.105)
Husband's company					
Yes	100	29.1	41	11.9	0.215
No	131	38.1	72	20.9	(1.540)
Preferences Variables	**Income average & below**		**Income above average**		***p-value (Chi Square)**
	no	%	no	%	
Doc's sex					
Male	37	10.7	10	2.9	0.076
Female	195	56.7	102	29.7	(3.155)
Doc's religion					
Muslim	65	18.9	14	4.1	0.001
Non Muslim	167	48.5	98	28.5	(10.281)
Trainee assistant					
Yes	54	15.7	22	6.4	0.447
No	178	51.7	90	26.2	(0.579)
Trainee deliver					
Yes	214	62.2	96	28.0	0.057
No	18	5.2	16	46.5	(3.613)
Pan relief					
Yes	132	38.4	61	17.1	0.670
No	100	29.1	51	4.8	(0.181)

Husband's company					
Yes	96	27.9	45	13.1	0.832
No	136	39.5	67	19.5	(0.045)

5.5 Focus Group Discussion Results

5.5.1 Rights as patients

Most of the respondents were unaware of their rights as patients and the rest were unsure about it. A few of them felt they could not request for it because as the receiving end, they should accept whatever was given to them. The patients were unaware that they can request for their preference doctor if available.

As said by a respondent, " Can we request? I don't think so. We should accept whatever is given to us if not the nurses will be very angry with us."

As mentioned earlier all the respondents were Muslim ladies hence majority of them prefer Muslim female doctors to delver their babies. Those who preferred Muslim doctors found they could perform "azan" or "qamat". Only minority had no specific preference for doctors' religion and sex. As long as the delivery was save, any doctor can deliver the baby. However, if they were not given services according to their preference, most dare not ask for it afraid the nurses will scold them.

Regarding their rights to request for pain relief, most of them were not aware of the options. They were not told what medication was given to them but they belief anything given to them have therapeutic values. Regarding pain relief respondents did not know if they were given any. Some of them did not feel pain relief was important, mainly because the delivery was easy and fast. Whereas, some claimed they wanted to feel the natural pain of labor in order be blessed from God but one participant said if she was offered the pain relief she would accept it as a natural process.

5.5.2 Husband / family members accompany during labor

All of them agreed that a family member should be allowed to accompany them. Sixteen out of twenty four would like their husbands to accompany them while in labor. However only seven choose their mothers' company because they expected moral support and sympathy from them who had experience it. However, when the women choose their husbands, mainly to let the husbands feels or sees how difficult they were giving birth. None who choose the husbands would expect the husbands to support them emotionally.

What were considered important for the women not mere presence of their family. The women wanted the hospital to allow their family members to hold the baby and recite "azan' to the newly borne child. Unfortunately this does not routinely happened.

Two respondents who do not choose their husbands said;

" I am afraid my husband will faint and he will be the next patient!"

" I think it is better for him to look after my other children, at least he know to do."

5.5.3 Trainees involvement in labor

Presence of trainees can be considered as disturbing their privacy. However, most of them were pleased with the presence of trainees as long as they do not involve in the delivery. They were dedicated with their patients and feel empathy with patients suffering of labor pain. One of the lady said she could rely on trainees to convey messages to the staff nurses or the doctors. Besides, she could also get information regarding her progress. Most of the women dare not ask the staff nurses or the doctors directly afraid they will be scolded.

Those trainee whom they considered as less authoritative and less influence can easily be asked to do them favor. The trainees responded when call, unlike the staff nurses who usually gave unpleasant respond. As told by a respondent, we should give chance or opportunity to trainees in experiencing their learning process. Majority found the presence of trainee were not disturbing. Only one disagreed with the involvement of trainees.

5.5.4 Choice of hospital for delivery

Regardless of their hospital choice and where the focus groups sessions took place, all participants answered no, they would not choose other hospital for delivery. Majority of them would not take the risk going to a new center and have no clear picture about the hospital for their deliveries. Many ladies repeatedly utilize the services at the same hospitals regardless of the quality of services provided to them. Their tolerance and satisfaction can easily met even with minimum quality. These choices were made not only for the convenience of the mothers, but also take into consideration factor on accessibility.

> *"It's ok. I can still tolerate the service at this hospital. I dare not go to another hospital and be in trouble as it is a strange new place", as said by a women who claimed she had bad experience with the nurses at the hospital.*

DISCUSSION

Regardless of their socio economic background, Malay antenatal women had similar preferences for intra partum care. If these women were given the choices, they would choose to be delivered by female healthcare providers, either doctors or midwifes compared to male. Besides, they also prefer doctors of the same religion with them who are able to recite few religious saying and "doa". However, it is clearly shown here that only those who are highly educated and have professions are likely to know their rights hence would request for the care they wanted.

On the other hand, knowledge on patient's rights was significantly related to socio economic status ($p<0.05$). Highly educated women, who were employed and had higher household income scored much higher in this aspects. A similar finding was found in Pakistan, (Khan, *et al.*, 1994), where educated literate women with middle school education are more likely than their illiterate counterparts to utilize modern medical professionals for both prenatal care and delivery. Hundley and Ryan (2004) found knowledge did influence preferences for intra partum care in their study subjects. Lack of knowledge on their rights as patients were found to be the obstacles that prevent these women from getting what they wanted from their healthcare providers. Besides, the attitude of some of the healthcare providers made the choice nullified.

What make women unaware of their rights may be contributed by many factors. Some even said they were not given the information regarding their rights. Unfortunately, some hospitals impose many rules and regulation on top of the privileges given to their clients, which indirectly discourage them to utilize the services offered. Do the healthcare providers aware of the situation?

Furthermore utilizing public services make them feel they have no rights to express their needs and desires but instead they have to accept whatever is given to them. On the other hand, there is always shortage of staff in public hospitals including the doctors and nurses who make them unable to entertain the request of the mothers. The situation may be different for those who go to the private hospitals. Their needs are taken care of and their requests are fulfilled. Unfortunately, not all women can afford to utilize the services at private hospitals.

If Malaysia is to be a developed nation by the year 2020 (Suleiman A. B., 2003), the situation must be changed. We would expect the socio economic of the community would also improve; hence more educated people will utilize the service. Healthcare provider should educate women on their rights to information and education so that a better understanding regarding their health can be achieved. Information on the patients' rights needs to be made widespread and accessible to the healthcare users.

The respondents considered trainees as friendly. However, they were not trusted to conduct the delivery if the women are aware of their rights to refuse trainees involvement. Will the trainees change their behavior and attitude towards the women once they are qualified and become registered doctors and nurses? The training module should be evaluated in order to avoid the same mistakes in the future.

Among the respondents, some of them wanted to be accompanied by their mothers instead of their husbands who are experienced enough to give them emotional support while in labor. Those who choose their husbands' did so in order to gain sympathy from their husbands. Perhaps by doing so the husbands can appreciate them and be more involved in their child development.

Surprisingly, the use of pain relief was not considered important as many would like to experience the labor naturally. Indirectly, most of them did not feel there is a need to request for pain relief. Could there be cultural values that influence their decision or perhaps their pain threshold is a higher then other woman is something yet to be discovered.

Conclusion

Socioeconomic status and cultural values influence antenatal mothers' knowledge on their rights, but not their preferences for intra partum care. In order to be treated according to preferences, antenatal mothers need to be knowledgeable regarding their rights as patients. These women need to be empowered regarding their own health decisions. The healthcare providers need to ensure antenatal mothers' are educated regarding their rights to information and educations are fulfilled.

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MALE INVOLVEMENT INITIATIVES IN THE REPRODUCTIVE HEALTH PROGRAM OF BANGLADESH FROM GENDER PERSPECTIVE

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Introduction

The issue of men's involvement in reproductive health service emanates from the underlying inequalities and inequities in the gendered roles and responsibilities of men and women. Gendering of the roles and responsibilities of men and women contributes in disengagement of men from some core area at the family level and also at the societal level i.e., general health and nutrition, reproductive health, child care and development etc. Disengagement of men excludes them from participation and sharing of responsibility in many core areas of their life. Such exclusion of men is the source of many inequalities and inequities of both men and women.

Family planning programme since its start in 1960s has not focused on men (Drennan, M., 1998,). The family planning programmes assumed, women would have the greatest stake in protecting them against unwanted pregnancy since women bear the risk of pregnancy and child birth. However, in the 1980s family planning programmes started giving limited attention to men through workplace programmes and condom social marketing (Drennan, M., 1998). Focus of male involvement was then limited to promotion of male method of contraception. Population controllers

Full Research Report

FACTORS INFLUENCING

ANTENATAL MOTHERS' CHOICE OF HOSPITAL FOR DELIVERY

AT HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM)

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By

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ABSTRACT

ABSTRAK

Pemilihan hospital untuk bersalin tidak menjadi isu bagi wanita sehingga mereka mengandung. Tujuan utama menggalakkan ibu-ibu mengandung agar bersalin di hospital adalah untuk memastikan keselamatan ibu serta anak yang baru dilahirkan. Objektif utama kajian tersebut adalah untuk menentukan faktor-faktor yang mempengaruhi ibu-ibu mengandung dalam pemilihan Hospital Universiti Sains Malaysia (HUSM) dan Hospital Kota Bharu (HKB) sebagai tempat bersalin. Kajian tersebut dijalankan dalam dua fasa. Dalam fasa pertama, satu kajian hirisan lintang telah dijalankan ke atas 344 orang ibu-ibu mengandung multipariti, berbangsa Melayu yang menjalani pemeriksaan kandungan mereka di Klinik-Klinik Kesihatan Ibu dan Anak terpilih sekitar daerah Kota Bharu, mulai bulan November 2003 hingga Februari 2004. Pemilihan subjek dibuat secara persampelan dua peringkat. Data diperolehi melalui temuduga menggunakan borang soal selidik yang telah disahihkan dan dibuat pra-uji terlebih dahulu. Untuk memastikan kualiti temuduga yang tinggi, hanya seorang penemuduga terlibat. Borang soal selidik mencakupi beberapa bidang iaitu sosio ekonomi, kemudahcapaian, pengalaman melahirkan anak sebelum ini, hubungan secara peribadi antara doktor dan jururawat bertugas serta keselesaan kepada pesakit dan keluarga mereka. Data telah dianalisa menggunakan analisis logistik regresi. Perbincangan Fokus Berkelompok (PFB) telah dijalankan dalam fasa kedua pada bulan Mac 2004. Tujuan PFB dijalankan adalah untuk mendapatkan maklumat mendalam mengenai faktor-faktor yang tidak boleh diterokai melalui borang soal selidik. Untuk memenuhi objektif ini, seramai 24 orang peserta yang telah menyertai kajian dalam fasa pertama secara sukarela setelah memberi persetujuan untuk terlibat dalam PFB. Sebanyak 4 sesi PFB telah

dijalankan, dan setiap perbincangan telah dihadiri oleh 6 orang peserta. Respon yang diberikan kemudiannya telah ditranskrip dan dianalisa berpandukan soalan-soalan rangka yang dikemukakan. Prevalen mereka yang memilih hospital sebagai tempat bersalin iaitu HUSM ialah 38.0% manakala untuk HKB ialah 62.0%. Berasaskan kepada keputusan analisa logistik mudah, sepuluh faktor yang mempengaruhi pilihan hospital secara signifikan ialah klinik kesihatan yang dikunjungi untuk pemeriksaan antinatal, hospital bersalin terdahulu, jarak ke hospital dari rumah, kemudahcapaian ke hospital, perkhidmatan jururawat yang bagus, waktu menunggu yang singkat, wad yang bersih, hospital rakan kanak-kanak (menerima pelawat kanak-kanak bawah 12 tahun) dan waktu menunggu yang singkat untuk pendaftaran ke wad. Dari kesemua faktor tersebut, hanya tiga faktor sahaja yang kekal mempengaruhi secara signifikan apabila dianalisa menerusi analisis logistik regresi berganda. Model terakhir telah diuji dan didapati memuaskan. Faktor-faktor yang terhasil dari model logistik regresi berganda ialah hospital bersalin terdahulu, kemudahcapaian dan hospital rakan kanak-kanak. Keputusan yang diperolehi daripada PFB menyokong kepada model tersebut dan berjaya mempelopori faktor yang tersirat. Berpandukan kepada analisa logistik regresi berganda, kajian ini menunjukkan faktor-faktor yang mempengaruhi ibu-ibu mengandung memilih hospital secara signifikan untuk bersalin di daerah Kota Bharu ialah hospital bersalin terdahulu, kemudahcapaian dan hospital rakan kanak-kanak (hospital membenarkan kanak-kanak bawah 12 tahun untuk melawat ibu mereka di wad).

ABSTRACT

The selection of a hospital for delivery does not become an issue for women until they become pregnant. The main aim for promoting hospital delivery is to ensure safety to the mother and the newborn child. The main objective in this study is to determine the factors that influence antenatal mothers choice of hospitals for delivery at Hospital Universiti Sains Malaysia (HUSM) and Hospital Kota Bharu (HKB). The study was carried out in two phases. In phase one, a cross sectional study was conducted on 344 Malays, multiparty antenatal mothers who attended selected Maternal and Child Health Clinics (MCHC) in Kota Bharu district, from November 2003 to February 2004. Subjects were selected using two-stage sampling. Data were obtained using an interviewer guided, validated and piloted questionnaire. In order to ensure high quality of the interview, only one dedicated interviewer was involved. The questionnaire consists of a few domains namely socio-economic, accessibility, convenience, previous delivery experience, and interpersonal relationship with doctors and nurses, comfort of the patients and their relatives. The data were analyzed using logistic regression. Focus Group Discussions (FGD) were carried out in phase two in March 2004. FGD was carried out purposely to explore in depth the influencing factors, which cannot be explored through questionnaire. To fulfill this objective, 24 volunteered antenatal mothers were recruited in this phase after being consented and agreed to involve in this study. Four FGD sessions, each group consisted of six participants were conducted. Their responses were transcribed and analyzed based on the framework questions directed to them.

The prevalence for choosing HUSM for delivery center was 38.0% and HKB 62.0% respectively. Based on the simple logistic regression, ten predictors variables namely health center, previous delivery hospital, distance to hospital, accessibility to hospital, good nursing care, short waiting hours, clean wards, children friendly (accept visitor under twelve) and fast admission to wads were significantly associated with the outcomes,. Among these only three factors remained significantly influenced when analyzed through multiple logistic regression. The final model was tested and it was found fit. The factors derived from the final model were previous delivery hospital, accessibility and children-friendly hospital. The findings in FGD support the model above and were able to extract the underlying facts. This study concludes previous delivery hospital; accessibility and children friendly hospital (hospital allows children under 12 years to visit their mothers in the wards) significantly influences the choice of hospital for delivery among antenatal mothers in Kota Bharu district.

CHAPTER 1

INTRODUCTION

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Malaysia has a population of 23,522,482 (Health Facts, 2004). The average fertility rate is 3.1 children born to every woman and the annual population growth rate is 2.1 %. Normal deliveries are the most common cause of hospitalization in Ministry of Health Hospitals, Malaysia (Health Facts, 2004). In Kelantan, the growth rate is approximately 2.8 % per annum. Besides, it also has a higher fertility rate, i.e. 5.1 children borne to every woman. Despite heavy utilization of the services, the quality of obstetric care is improving as reflected by the decreasing rate of perinatal, neonatal and maternal mortality (Pathmanathan I, 2003). Obstetrics services are one of the few services that are likely to develop long-term doctor-patient relationship. Patients who are comfortable with the services provided are more likely to repeatedly utilize them. Besides, they are likely to promote and recommend the service center to their family and friends (Marshall *et al.*, 1995).

1.2 BACKGROUND OF STUDY AREA

1.2.1 State of Kelantan

Kelantan is one of the 13 states in a land area of about 14,922-sq.km. It is located at northeast of Peninsular Malaysia facing the South China Sea. Kota Bharu, the state capital is a rapid growing town being the focal point for Kelantan's administration and business activities.

The state is divided into 10 administrative districts i.e. Kota Bharu, Pasir Mas, Tumpat, Pasir Puteh, Bachok, Kuala Krai, Machang, Tanah Merah, Jeli and Gua Musang. It is almost summer all the year round with intermittent rain. Longer and heavier rainfall is charted in November, December and January. Kelantan has a population of about 1.4 million comprising Malays, Chinese, Indians, Siamese and other races (Kelantan State Report, 2001). Malays make up about 94.0 % of the population. About 75.0 % of the populations live in the north of the state that covers 17.0 % of the state's total land area (Kelantan State Report, 2000). Kelantan is the only state that is governed by an opposition political party, and yet enjoys a very good relationship with the Federal Government

The mean monthly household income for Kelantan is RM 1,314:00 (Kelantan State Report, 2000). This figure is low `compared to many other states in Malaysia. Therefore it is not surprising the public obstetrics care services are heavily utilized as they only imposed minimum user fee charges.

1.2.2 Maternal and Child Health Clinic (MCHC)

There are eleven health center in Kota Bharu district. At every health center, there is a Maternal and Child Health service conducted at MCHC. A Family Physician specialist usually heads most of the MCHC. Basically MCHC provides services to the mothers and children. Among others, the service include antenatal and postnatal check ups, immunization, and pediatrics clinic.

1.2.3 Obstetrics Services in Kota Bharu District

Obstetrics service provider in Kota Bharu can be divided into public and private sectors. There are two private hospitals and a few birthing centers but they are much underutilized. However, there are only 2 public birthing centers in Kota Bharu district, a general hospital, Hospital Kota Bharu (HKB) and a teaching hospital, Hospital Universiti Sains Malaysia (HUSM). These two centers cater approximately 90.0 % of all obstetrics cases in Kota Bharu (Seman, 2004, pers comm, 2 March).

HKB, the first government hospital in Kelantan was established in 1930. It is situated in the capital city of Kota Bharu. Whereas, HUSM a teaching hospital located in Kubang Kerian was established in 1983. These hospitals are only 5 kilometers apart. HKB has integrated antenatal and postnatal wards. The patients are placed in the same ward pre and post delivery. On the other hand HUSM has separate wards for antenatal and postnatal patients.

Both hospitals have been appointed as husband friendly for the last few years because husbands are allowed to accompany their wives during labor. However, only HKB is considered as children friendly as they allow visitors less than 12 years old to enter the wards during visiting hours. The wards in HKB are graded into first, second and third class. Government officers and their family usually utilize these kinds of ward privileges as they were given priority for accommodation in the first class ward.

HUSM on the other hand practices open wards system. For those who need more privacy in HUSM, they have to pay one of the private rooms located in the private wings. This discourages the government officers and their family as their privileges are nullified. Only staffs of USM and their dependents are allowed to utilize the privileged staff wards.

Table 1.1: Obstetrics resources and workload at HUSM and HKB for 2003/2004

Obstetrics Resources and Workload	HUSM	HKB
RESOURCES:		
Total no of Specialist/Consultant	12	8
Total no of Medical Officer	26	7
Total no of House Officer	8	6
No of patient per staff nurse at labor room	1.5	3
No of supporting staff at labor room	5	4
No of beds in labor room	10	15
No of beds in antenatal and postnatal wards	98	144
WORKLOAD:		
Average number of total delivery per month	500-700	1100-1300
*BOR in labor room (%)	60-70	110 - 120
*BOR in wards (%)	50 - 60	110 - 120

*BOR- bed occupancy rate

The resources and workload of obstetric services at both hospitals are summarized in the table above (Seman, 2004, pers comm, 2 March). It is obvious that HUSM has more resources than HKB. However HKB has more workload, as HKB delivers approximately 1100-1300 babies a month, compared to only 500-700 for HUSM. This makes the bed occupancy rate (BOR) for HKB about double than HUSM. The concern is non-proportionate utilization of recourses at this two hospitals may compromise the quality of services and reduced satisfaction not only to the clients but also to the health care providers.

What may contribute to the scenario above is yet to be discovered in this study. By knowing the factors that influence antenatal mothers' choice of hospital for delivery can help to find the answer to the above questions. It is possible that any of the factors mention below might have direct of indirect influence to the situation. Firstly, HKB may provide quality services that encourage utilization of their services. Secondly, USM may impose certain policy that discourages the utilization of their services. Lastly, the preferences of antenatal mothers may be intertwined with the cultural or ethnic values. What factors may contribute to antenatal mothers choice of hospitals for delivery is the core of this study.

CHAPTER 2

LITERATURE REVIEW

CHAPTER 2: LITERATURE REVIEW

2.1 PREFERENCES FOR INTRAPARTUM CARE

The selection of a hospital for delivery does not become an issue for women until they become pregnant. Obstetric patients tend to develop various expectation and preferences for intrapartum care as the result of their own experience(s) or experience(s) of others (Hundley and Ryan, 2004). This is because word of mouth plays a significant role in the decision-making process (Morgan *et al.*, 1999).

The selection of a particular hospital for delivery is not always as simplistic as it may seem. There are many factors that prohibit a woman from delivering at the hospital of her choice. Socioeconomic conditions create major barriers that are difficult to overcome. Financial constrains may limit the options to only affordable public centers (Morgan *et al.*, 1999).

2.1.1 Satisfaction with previous delivery experiences

One of the significant trends in the development of modern health care is an involvement of patients or consumers in the management of their care and treatment. Feedback from consumers can influence the whole quality of improvement agenda and provide an opportunity for organizational learning and

development. It provides crucial information on what the consumers' expectations are and how they perceive the quality of care, which may be different from that of all staff providing that care (Gooding and Smith, 1995).

Many studies showed that previous delivery experiences are among the most influential factors in choosing a delivery center. Women who are satisfied with the service provided and are comfortable with the hospitality are likely to utilize the service again. Satisfaction is achieved when the perception of quality of care and services they received in health care setting has been positive, satisfying, and meets their expectations (Yellen *et al.*, 2002).

Customers' satisfaction is an attitude. It is a person's general orientation towards a total experience of health care. Satisfaction comprises both cognitive and emotional facets and relates to previous experiences, expectations and social networks. When patients are satisfied with the service quality, they tend to promote it to their family and friends (Marshall *et al.*, 1995). Word of mouth is known to be a powerful influencing agent either for better or worse. For some women, obstetrical services perceived to be of higher quality might be selected despite the inconvenience and higher cost of travel to a distant hospital. Recent literature examining hospital choice concluded that in most studies the perceptions of hospital quality was the most important factor in hospital selection, followed by perceptions of convenience and the cost of care (Morgan *et al.*, 1999).

Hundley and Ryan found that just by having the experience of delivering at a center, would influence them to deliver again at the same place. The study however did not mention whether the patients who chose the same hospital satisfied with the services (Hundley and Ryan, 2004). As long as the previous delivery was uneventful and without complications, mothers are likely to choose to deliver there again (Amooti-Kaguna, 2000).

2.1.2 Antenatal mothers' socio economic status

A review of the literature reminds us that there is no consensus on the definition of socio-economic status and there are longstanding debates on its measurement (Oakes and Rossi, 2003). Composite measure of education, income and occupation is classically used in Great Britain as a construct variable of social class for studying general health issues. A household social class measure is proposed to serve as a better predictor of reproductive outcomes and economic level, than does individual social class standing (Krieger, 1991). A study in Sweden showed women who were more educated tend to choose birthing center that provide continuity of care (Waldenstrom and Nilsson, 1993). A similar finding was found in Pakistan, (Khan *et al.*, 1994), where educated literate women with middle school education are more likely than their illiterate counterparts to utilize modern medical professionals for both prenatal care and delivery. However, a reviewed article do not support these findings (Marshall *et al.*, 1995).

2.1.3 Transportation and accessibility

Accessibility of services is a function of a number of factors, including distance and time to services, cost to services, and even psychosocial barriers. It is important to note that availability of services does not necessarily imply accessibility, since services may be available within a community yet inaccessible to some members of the population within the same community (Magadi et al, 2000). In this study "accessibility of services" refers mainly to physical accessibility, measured in terms of distance and time to the delivery hospital, even though we recognize that access to service is also a function of other factors.

The distance to the maternity hospital has been reported to be more important in maternity care than other general curative health services. Travel time is a considerable barrier to access to delivery facilities. They do not indicate that quality improvements at existing facilities would overcome the barrier of distance and travel time (Hodgkin,1996). Focus group discussion carried out in Uganda found access to maternity services is one of the influencing factors in choosing hospital for delivery site (Amooti-Kaguna, 2000). Similar findings shown by McGuirk and Porell, where distance and time factors strongly influence hospital choice, even in metropolitan area where alternatives are widely available (McGuirk and Porell, 1984).

2.1.4 Hospital characteristics

Reviewed articles by Marshall *et. al.*, (1995) found that patients were more concerned about the interpersonal relationship, especially quality of communication. Nursing care was considered most important in determining patients' satisfaction and repeat service utilization. In the late nineties, besides good communication skills, patients also demand for individualized treatment and privacy. Single room occupancy and husband friendly were then considered important. In fact, single room maternity care was associated with a significant improvement in client satisfaction because of many factors, including the physical setting itself, avoidance of transfers, and improved quality of nursing care (Janssen *et al.*, 2000). Current studies show that patients are more interested to get involved in decision making regarding their own health (Hundley and Ryan, 2004).

With the advancement in technology and changing demographic characteristics, women also have different preferences and expectation. Highly educated women are likely to demand for more rights and empowerment. Consumers are rightly becoming more involved in their own health welfare and are being encouraged to do so mainly in developed countries (Hundley and Ryan, 2004).

The influencing factors studied are quite similar in many researches. They however, categorized the factors differently. Combier *et al.*, (2004) grouped

the responses into few domains mainly according to accessibility or proximity, reputation of the establishment among users, advice of treating physician, technical quality and cost (Combier *et al.*, 2004). These factors can be categorized into perception of hospital quality, perception of convenience and cost of care (Morgan *et al.*, 1999).

2.1.5 Cultural values in delivery practice

In 1991, the rate for hospital delivery in Kelantan ranged from 35.0% to 65.0 % from districts to district (Clark, L A, 1993). For those who choose home delivery, trained midwife plays an important role and acted as the health personnel. Besides, delivering at home would make the women more comfortable as they have their families around to give them support (Clark,LA, 1993).

However, the situations have much changed now. Hospital has become a common place for delivery. A small number still delivers at home. However, the doctors must certify them low risk before they can choose home delivery. Realizing the importance to have their close relatives around while in hospital, HKB allows children below 12 years to visit their mothers in the wards. On the other hand, it is culturally accepted, husbands have little involvement with the doctors or midwifes during their wife's pregnancy (Clark, LA, 1993). It is common to see their spouses do not accompany most women who come for antenatal check up. Therefore it is hoped that by allowing husbands to accompany their

wives during labor (husband friendly hospital), this can help to encourage husbands' participation and involvement in the delivery process.

2.2 FOCUS GROUP DISCUSSION

In this study, focus group discussion (FGD) is used as adjuvant method in data collection. FGD allowed us to explore in more details the factors that may not be covered by just answering the questionnaire. Besides that, it also makes the discussion more lively and informal. Focus group discussion (FGD) is a methodology whereby information is generated from the interaction, which takes place between the group members on a topic suggested by the moderator (Khan M E *et al.*, 1991).

There are steps to conduct focus groups. Many researches have similar approach in the format. Like other quantitative method of research the design must start with setting the objectives of the study. Below are the steps to conduct a focus group discussion interview:

a. Identify the goals and objectives of the interview

b. Choose an interviewer

c. Determine who should be interviewed

d. Recruit participants

e. Formulate questions

f. Run the session(s) and records the discussion

g. Analyze the data

h. Report the results

i. Use the results

Hughes-Hassell and Kay describe the advantages and disadvantages of focus group. Among the advantages they stated were:

a. The group interaction can stimulate memories and feelings,

b. It is time effective, as we can gather ideas or views of six to eight people in one hour

c. The format allows the interviewer to probe for clarification or elicit greater detail throughout the interview, thus enhancing the completeness of the data collected

d. Tend to encourage more openness in the participants' responses than other techniques (Hughes-Hassell S and K, 2004)

On the other hand there are challenges in conducting focus groups which includes:

a. Managing the group so that the interview is not dominated by one or two people

b. The success depends on the ability of the moderator to facilitate the discussion

c. The ability to correctly capturing the discussion and correctly interpreted the discussion

2.3 CONCEPTUAL FRAMEWORK

The conceptual framework for this study has been depicted in Figure 2.1 below. This figure shows the flow of thought of patient during the selection process and contributing factors that play role in the selection of obstetrical care.

The socio demographic and previous delivery experiences have an initial influence on the hospital selection. If the patient does not have good access to a facility such as no transportation and financial constrains, the patient's choice of hospital will be reduced (Morgan *et al.*, 1999).

For some women, obstetrical services perceived to be higher quality might be selected despite of inconvenience and higher cost of travel to a distance hospital. The problem statement will be explored later in this study. Further discussion will determine whether this problem statement will be rejected or accepted by our null hypothesis.

This conceptual framework recognizes that some patients may base their selection on their desire to see a particular physician, but obstetricians typically work as a group making it difficult for patients to be guaranteed that the physician of choice will deliver their babies.

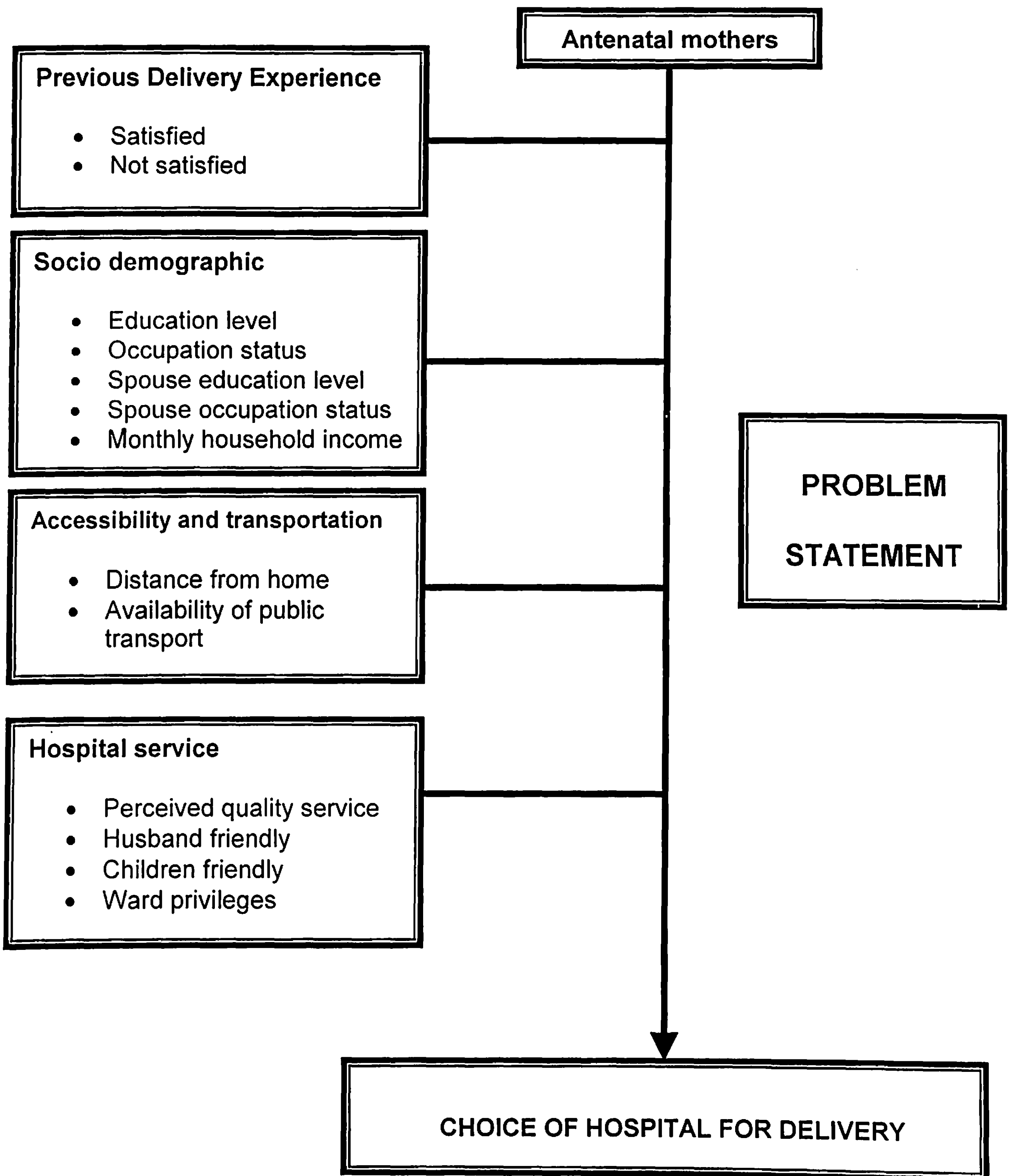

Figure 2.1: Conceptual framework of the study

2.4 IMPORTANCE OF THE STUDY

Quality of care is a measure or indicator of the level of performance of the provider in comparison to some set of expectations or standards (Williams, 2001). The reality is that measuring quality is an extremely difficult task. Quality of care can only be improved by constant feedback of the results through biomedical advances and improved practice patterns of physicians and other health care professionals. Most health care professionals now accept obtaining consumer feedback to improve services as a desirable activity. It was felt that clients would be more likely to respond to an interview than to a self-completion survey, and even for those with reading difficulties would be able to take part in the study (Spencer, 1996). Hence this study will collect the data from the respondents using interviewer-guided questionnaire and focus group discussion, which have direct interaction with them.

Having to explore the influencing factors through descriptive and qualitative studies can help the health care providers improve and upgrade their services. Perhaps this study can find an answer towards our concern regarding non-proportionate utilization of recourses at these two hospitals HUSM and HKB, which may compromise the quality of services and satisfaction not only to the clients but also to the health care providers. What may contribute to the scenario above is yet to be discovered in this study. Looking at the factors that influence antenatal mothers' choice of hospital for delivery can help to find the answer to the above questions.

CHAPTER 3

OBJECTIVES AND HYPOTHESIS

CHAPTER 3: OBJECTIVES AND HYPOTHESES

3.1 OBJECTIVES

3.1.1 General objective

a. To determine the factors influencing antenatal mothers' choice of hospital for delivery.

3.1.2 Specific objectives

a. To determine the prevalence of antenatal mothers' choice of Hospital Uniiversiiti Sains Malaysia (HUSM) or Hospital Kota Bharu (HKB) for delivery at selected health centers n Kota Bharu.

b. To determine the factors influencing antenatal mothers' choice of hospital for delivery at either Hospital Universiti Sains Malaysia (HUSM) or Hospital Kota Bharu (HKB).

c. To explore in depth the factors influence antenatal mothers choice of hospital for delivery through qualitative method.

3.2 HYPOTHESIS

3.2.1 Research Hypothesis

There is an association between the factors that influence antenatal mothers' choice of hospital for delivery with the hospital of their choice.

CHAPTER 4

METHODOLOGY

CHAPTER 4: METHODOLOGY

4.1 METHODOLOGY

The study was carried out in 2 phases. Phase one covered the quantitative method-using interviewer guided questionnaire. In phase two, a qualitative focus group discussion was performed.

4.2 PHASE ONE

Phase One study was conducted from October 2003 until February 2004. It was a quantitative study, using an interviewer guided structured questionnaire. The activities in Phase One included questionnaire development, content validity by expert panels, and pilot study for questionnaire testing, face validity and sample size determination and actual data collection of the study.

4.2.1 Study design

A cross sectional study was carried out from October 2003 until February 2004.

4.2.2 Reference population

All antenatal mothers who are accessible for antenatal check ups at 4 selected health centers in Kota Bharu district; i.e. Klinik Kesihatan Kubang Kerian (KKKK), Klinik Kesihatan Kedai Lalat (KKKL), Klinik Kesihatan Wakaf Che Yeh (KKECY) and Klinik Kesihatan Pengkalan Chepa (PPKC).

4.2.3 Source population

All antenatal mothers who attended MCHC for antenatal check ups at 4 selected health centers in Kota Bharu district; i.e. Klinik Kesihatan Kubang Kerian (KKKK), Klinik Kesihatan Kedai Lalat (KKKL), Klinik Kesihatan Wakaf Che Yeh (KKECY) and Klinik Kesihatan Pengkalan Chepa (PPKC), from October 2003 to February 2004. These clinics were selected among eleven-health clinic in Kota Bharu due to their close proximity to HUSM and HKB, so that the women have accessibility to both hospitals.

4.2.4 Inclusion criteria

a. Malaysian

For verification, the identification card numbers were asked

b. Multi parity

This can be confirmed by referring to their antenatal record cards

c. Previous delivery experience at either HUSM or HKB

d. Plan for current delivery at HUSM or HKB

e. Period of gestation more than 16 week

4.2.5 Sampling frame

All antenatal mothers who attended MCHC for antenatal check ups at 4 selected health centers in Kota Bharu district; i.e. KKKK, KKKL, KKWCY and KKPC from October 2003 to February 2004 who fulfilled the inclusion criteria.

4.2.6 Sampling method

The sampling method used was two-stage sampling. Purposive sampling for the four health center and followed by systematic random sampling in each health center. The selections of respondents were carried out on the MCHC antenatal-booking day once a week since each MCHC has one booking day in a week. Antenatal mothers who come for booking must register at the counter. The registration list is used as the sampling frame for sampling purpose. Sampling interval was determined based on the number of study population attendees in all participated health clinics. One in every 3 attendees to the KKKK and KKKL, and one in every 4 attendees to the PPWCY and KKPC were chosen from the sampling frame to obtain a total of 344 samples appropriate for a study period of five months. Those who agreed to participate were consented using consent form attached at Appendix A. The sampling detail in each clinic is shown in Figure 4.1 below.

Table 4.1: Respondents sampling process for each health center.

Center	KKKK	KKKL	KKWCY	KKPC
Clinic hours	8.00am-12.00 pm	8.00am-12.00 pm	8.00am-12.00 pm	8.00am-12.00 pm
Antenatal MCHC Booking Day	Sunday	Monday	Tuesday	Wednesday
Average attendance at booking	12-15	12-15	18-20	18-20
Selection interval	1 in every 3	1 in every 3	1 in every 4	1 in every 4
Total weekly recruitment	4-5	4-5	4-5	4-5
Total study recruitment for 20 weeks	80-90	80-90	80-90	80-90

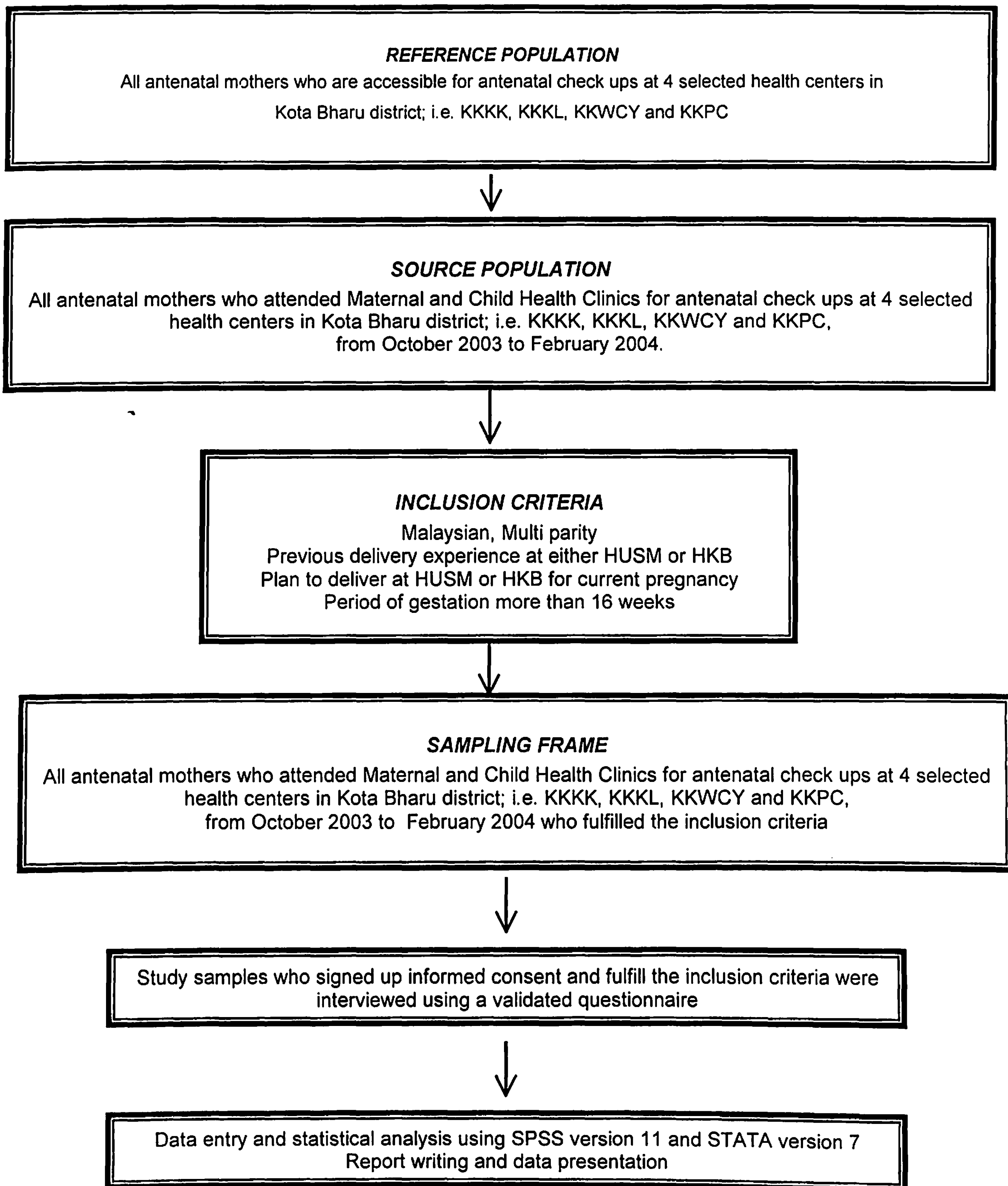

Figure 4.1: Study flowchart for Phase One

4.2.7 Sample size determination

a. Sample size determination for prevalence study

Sample size for the prevalence of hospital choice for delivery was calculated based on the pilot study of this study. In the pilot study, the prevalence for choosing HUSM was 37.5%. The confidence interval was taken as 95.0% with 5.0% precision, using single proportion formula (Daniel, 1995), the sample size was:

$$n = \frac{z}{\Delta}^2 p\,(1-p)$$

$$= \frac{1.96}{0.05}^2 0.375\,(1-0.375)$$

$$= 360$$

When considering 10.0 % dropout, the total sample size for prevalence study was 396 subjects

a. Sample size determination for association study

The sample size for the test of association was based on the pilot study carried out earlier in this study. The formula for two proportions at 95.0% confidence interval, and 80.0% power is:

$$n = \frac{P_1(1-P_1) + P_2(1-P_2)\ (Z_\alpha + Z_\beta)^2}{(P1 - P2)^2}$$

At 95.0 % confidence interval and 80.0 % power, the sample size obtained was from the variables below.

n = the required sample size

Power = 80 % ($Z_\beta = 0.84$)

Alpha = 0.05 ($Z_\alpha = 1.96$)

$P_1 = 0.13$ i.e., Proportion of antenatal mothers who choose to deliver in HUSM who are satisfied with the staff nurse service (based on the pilot study)

$P_2 = 0.04$ i.e., Proportion of antenatal mothers who choose to deliver in HKB who are satisfied with the staff nurses service (based on the pilot study)

m = 1 i.e., the ratio between HUSM and HKB was 1

The number of respondents required for each group is 150 subjects. Therefore, the total sample size required for the association study is: (150 x 2 = 300) + 15% dropout = 345 subjects.

In order to meet the both objectives, the sample size required is 396. However, due to the limited time and resources, the sample size that can be managed for this study is taken as 345.

4.2.8 Research tool Phase One: Questionnaire

4.2.8.1 Questionnaire development

A questionnaire was designed to obtain the related factors that influence antenatal mothers' choice of hospital for delivery. The main bulk of the questionnaire was closed ended questions with a few options of answers for each question asked. Only one question was open ended which asked the main reason for choosing the hospital of choice for delivery.

The closed ended part consisted of a few domains namely socio-economic, accessibility and transportations, previous delivery experience including interpersonal relationship with doctors and nurses, comfort of the patients and their relatives, patients knowledge on their rights and their preferences for intrapartum care. Please refer to Appendix B for full questionnaire and Appendix C for the English translation version.

Comments and suggestions from a group of experts were reviewed to validate the contents of questionnaire. Following that a pilot study was conducted on 40 antenatal women at Kubang Kerian Health Center in September 2003. Face validity of the questionnaire was performed, unfortunately it was found unsatisfactory. Following that, the problematic items were reworded and re-piloted in October 2004. Another 40 antenatal mothers with the same inclusion criteria at the same Health Clinic, Kubang Kerian were involved.