ABSTRACTS OF PAPERS PRESENTED AT THE ASIA PACIFIC PRIMARY CARE RESEARCH CONFERENCE 2010

ORAL PRESENTATIONS

1. SCREENING FOR DEPRESSIVE SYMPTOMS IN DIABETIC PATIENTS IN PRIMARY CARE

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Objectives
In primary care settings, the point prevalence of major depression ranges from 4.8% to 8.6%. In the average family practice, 6 cases of depression go unrecognized each week due to the unavailability of a tool that can be used by the busy family doctor to detect depressive symptoms.

Methods
The PHQ-9, which is a 9-item questionnaire was administered to diabetic patients seen at Jurong Polyclinic over a six week period. A total of 825 questionnaires were collected and analyzed. 14 patients were scored at 15 or more, which in other studies done abroad indicates satisfaction of the DSM-IV criteria for depression. These patients were recalled to see a senior doctor so that an evaluation for depression could be made. Next the group who scored between 10-14 were recalled and the rest of the case-notes were tagged so that they could be reviewed when they came back to the clinic for their regular check-up.

Conclusion
Table shows the breakdown of patients found to have depression/no depression and their PHQ-9 scores
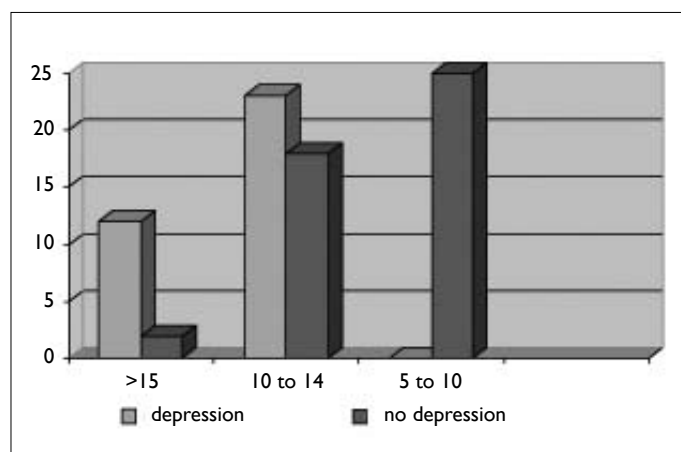
Prevalence of depression was 4.49%. Ratio of males to females with depression was 2:3.

Our results suggest that the PHQ-9 can be reliably used in our setting to pick up depressive symptoms. None of the patients in our survey who were diagnosed with depression has PHQ-9 scores of less than 10 and this correlates well with studies done abroad.

Keywords
Depression, PHQ-9

2. NUTRITIONAL STATUS OF OLDER ADULTS ON THE PUBLIC ASSISTANCE SCHEME IN CENTRAL CDC, SINGAPORE

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Objectives/Aims
To assess the nutritional status of a sample of individuals receiving Public Assistance and identify factors contributing to risk of malnutrition and barriers to adequate nutrition

Methods
399 community-dwelling PA/SG recipients were interviewed to quantitatively assess nutritional status, nutritional knowledge, co-morbidity burden, depression risk, functional status, and awareness and utilisation of available food assistance services. Further in-depth qualitative interviews were done with malnourished individuals to evaluate the barriers they faced.

Results
50.3% respondents were at risk of malnutrition. Increased risk of malnutrition was independently associated with advanced age (OR: 1.38, 95% CI: 1.20-1.71), single marital status (OR: 1.47, 95% CI: 0.98-2.21), risk of depression (OR: 1.43, 95% CI: 1.17-1.74), impaired functional status (OR: 1.42, 95% CI: 1.17-1.71), being underweight (OR: 2.21, 95% CI: 1.85-2.83), and poor nutrition knowledge (OR: 1.26, 95% CI: 1.03-1.53) [All p values <0.05.]. Qualitative analysis revealed that financial, social, physical barriers and lack of knowledge were the main contributors to their poor nutritional status.

Conclusions
The risk of malnutrition among PA/SG recipients is higher compared to local and international data and is related to

advanced age, single marital status, risk of depression, impaired functional status and being underweight. Education about nutrition and food assistance services is recommended to improve the nutritional status of respondents.

Keywords

Malnutrition, Nutrition, Nutritional Assessment, Geriatric Assessment, Nursing homes, Food services.

3. COUGHS AND COLDS: INFLUENCE OF ETHNICITY ON ILLNESS PERCEPTION AND SELF-MANAGEMENT

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Objectives

This study drew on the concept of ethnic variation in illness behaviour (Zola 1966) using the Adaptive Theory approach (Layder 1998). Working with coughs and colds as symptom exemplars, this study aimed to explore how ethnicity influenced people's illness behaviour particularly in the area of self-management.

Methods

This was a qualitative study embedded within a mixed methods study design. In-depth interviews were conducted in private and public primary care clinics in Selangor, Malaysia. Respondents were working adults who consulted doctors with symptoms of coughs and colds, focusing on their illness behaviour prior to consultation. The three main ethnic groups of Malay, Chinese and Indian were purposively sampled. Interviews were audio-recorded, transcribed and analysed using thematic analyses.

Results

A total of 50 respondents were interviewed. Ethnicity influences illness behaviour in various ways, from perceptions of illness causation to various self-management actions. This was evident particularly in the types of home remedies as favoured by particular ethnic groups. These influences, which are ingrained within the context of the family and social network, will be discussed in the presentation.

Conclusion

This paper illustrates how ethnicity influences various aspects of illness behaviour among a multi-cultural Asian society. Such factors need to be considered in health care provision particularly when promoting self-management.

Keywords

ethnicity, self-management, illness behaviour, coughs and colds.

4. ON-SITE MEDICAL PHYSICIAN-SUPPORTED FAMILY MEDICINE CLINICS FOR NON-URGENT MEDICAL REFERRAL

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Introduction

Triage of new referrals is used to prioritize access of scarce hospital services. This may result in long waiting times (WT) for patients with non-urgent health conditions. To address this problem, a Family Medicine Triage Clinic (FMTC) was set up to provide timely access for patients who are assigned routine priority (RP) after referral to a specialist medical clinic (MC).

Objective

To evaluate the effectiveness of the programme

Methodology

Patients referred to MCs by general outpatient clinics (GOPC) and triaged as RP were offered appointments at FMTC. All cases were reviewed by a medical specialist after being seen by primary care physician.

Results

From Nov 2009 to April 2010, 367 new cases were seen with the 99th percentile WT of 9 weeks, while the corresponding WT of MC was 102 weeks. 39.8% cases had been discharged within 5 visits and 7.1% required onward referral to MC. Most cases were managed at primary care level without the need of special investigations and interventions. Median number of visits before discharge was 2.

Conclusion

FMTC provides timely and effective management of non-urgent medical conditions. This model of joint consultations between family physicians and medical specialists serve to build capacity in the primary healthcare clinic.

POSTER PRESENTATIONS

1. PHARMACOLOGICAL MANAGEMENT OF INPATIENT CHILD AND ADOLESCENT PSYCHIATRIC ILLNESS – A DESCRIPTIVE STUDY

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Objectives

To describe the child and adolescent psychiatric disorders in an inpatient setting and their pharmacological management.

Method

The case record files of all patients ≤ 18 years of age admitted to the psychiatry ward of a tertiary care hospital in Southern India over three years period were studied. Following details were recorded - age, gender, diagnosis and drugs prescribed. Drug classes were delineated as follows – antidepressants, antipsychotics, mood stabilizers, anxiolytics/hypnotics, stimulants.

Results

A total of 611 patients were admitted during the three years period. 41.6% were females. The mean age was 10.67±4.81 years in males and 12.37±5.04 years in females. Neurotic and somatoform disorders were more common in females (p<0.001) while disorders of psychological development (p=0.023) and behavioral disorders (p<0.001) were more common in males. Totally these accounted for 69.2% of the cases. 10.3% were diagnosed with mood disorders while schizophrenic disorders accounted for 3.6% of the cases. 45.3% of the cases did not receive any psychotropic medication. Percentage use of drug classes was as follows – antidepressants 26%, antipsychotics 14.7%, mood stabilizers 6.5%, anxiolytics 18.7% and stimulants 2%. Antidepressants and anxiolytics were more commonly prescribed in females (p<0.001) while stimulants were more commonly prescribed in males (p=0.001). 2.8% of the cases were discharged on 3 drugs.

Conclusions

Psychiatric illness is more common in males although towards adolescence the female percentage increases. Most common diagnosis is behavioral and neurotic disorders while the most commonly prescribed drugs are antidepressants and anxiolytics. Gender difference in the use of medications is seen.

2. IDENTIFY THE FACTORS THAT INFLUENCE THE COLLEGE STUDENTS TO MAKE DECISION FOR MEDICAL CONSULTATION

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Objective

College students may differ from adult for medical visit. The objective of this study is to identify the factors that influence college students in making medical consultation.

Material and Methods

Between September 2009 and September 2010, 515 college students from 3 universities (two public, one private) were provided questionnaires. There were 17 questions to be answered. Data were recorded by using the Likert (5-point) scale.

Results

The median age was 20. One hundred and twenty-eight (24.9%) males and 387 (75.1%) females agreed to answer the questionnaire. One hundred and fifty-six (30.3%) of the students were science majors and 359 (69.7%) were humanities major.

The Cronbach's alpha value was 0.884. After "factor analysis", results can be classified into 5 categories: (a) medical personnel's professionalism (medical knowledge, technique and attitude); (b) medical service efficiency (waiting time for registration, examination, medication and consultation); (c) impression of the medical institution (name recognition, size); (d) ancillary services (parking lots, food court, convenience store, etc); (e) uniform (medical and administrative staff).

The results showed that college student considered the "medical personnel's professionalism" (average score 4.49) is the most important factor for decision-making before medical consultation. The next is "medical service efficiency" (average score 4.09).

Conclusions

College students considered that "medical personnel's professionalism" is the most important factor for them to choose the medical institution. The "waiting period" is also influenced their decision-making.

3. COLLEGE STUDENTS AND FREQUENCY OF MEDICAL VISIT

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Objective

Taiwan's national health insurance (NHI) is a unique event in the world. Many of diseases are covered by NHI. Do the people have more medical visit? The objective of this study is to investigate the frequency of medical visit in the past year among college student.

Material and Method

Between September 2009 and September 2010, 515 college students from 3 universities (two public, one private) were provided questionnaires. The number of out-patient department (OPD) visit and hospital admission in the past year were surveyed.

Results

One hundred and twenty-eight (24.9%) males and 387 (75.1%) females agreed to answer the questionnaire. One hundred and fifty-six (30.3%) of the students were science majors and 359

(69.7%) were humanities major. The median age was 20.

Sixty-nine students (13.4%) were found without any OPD visit in the past year. The frequency of medical visit 1, 2, 3, 4 and ≥5 were found in 45 (8.8%), 115 (22.3%), 103 (20%), 35 (6.8%) and 148 (28.7%) students. Thirty-five (6.8%) students had hospital admission in the past year.

Conclusion

The 5 or more medical visits in the past year were found in 29% of college students. The number of medical visits made each year should be a source of concern. The high number of OPD visits is an important issue that the Bureau of NHI must look into.

4. THE INDEPENDENT EFFECT OF NEIGHBOURHOOD AND SOCIOECONOMIC STATUS ON MULTI-DISEASE HEALTH SCREENING - A TALE OF TWO COMMUNITIES

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Objectives

We studied whether individual socioeconomic and neighbourhood factors such as living in a poor community independently affected health screening participation.

Methods

We studied 3 blocks of public-rental flats (the poorer community) adjacent to 3 blocks of owner-occupied public housing (the better-off community) in a precinct in Taman Jurong, Singapore. Demographic details and reasons for not having regular hypertension, diabetes, dyslipidemia, colorectal and cervical cancer screening were collected from 2009 to 2010. Independent factors of health screening take-up were assessed using logistic regression. Significance level was set at p<0.05.

Results

Participation rates for the rental flats and owner-occupied flats were 89.0% (357/400) and 70.2% (351/500) respectively. Only individual socioeconomic factors like no financial aid (p=0.023), employment (p<0.001) and household income >$1500 (p=0.039) independently associated with regular hypertension screening. Both individual socioeconomic factors and living in a better-off community independently associated with regular diabetes, dyslipidemia and colorectal cancer screening. Only employment (p=0.035) associated with regular cervical cancer screening.

Conclusions

Differing neighbourhoods within one geographical location were independently associated with differences in diabetes, dyslipidemia and colorectal cancer screening, even after controlling for individual demographic and socioeconomic indicators. Staying in a poorer community itself can influence individual decisions on health screening.

Keywords: Socioeconomic, health screening, multi-disease

5. SOURCES OF HEALTHCARE ADVICE IN LOW-INCOME SINGAPOREANS

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Objectives

We investigated preferences for providers of health advice in a low-income Singaporean community.

Methods

We studied 3 blocks of rented public flats over 2009-2010. At recruitment, residents were asked who their preferred source of health advice was. Backward logistic regression was utilised and significance was set at p<0.05.

Results

Participation was 89.8% (359/400). Only 11.1% preferred to approach Western-trained doctors for medical advice; 29.5% preferred alternative medicine; 6.7% approached family members and 52.6% preferred to rely on their own knowledge. Comparing against 351 residents recruited from adjacent non-rental flats and controlling for sociodemographic factors, rental residents were more likely to turn to alternative medicine and family members but less likely to turn to Western-trained doctors. In the rental flat community, singles were more likely to consult alternative medicine practitioners and non-Chinese were more likely to consult family; while dyslipidemics were more likely to consult Western doctors. There were no significant associations between source of medical advice and participation in regular chronic disease screening, smoking/drinking cessation, and control of BP in known hypertensives. Cost and lack of efficacy were main reasons cited for not seeing Western doctors.

Conclusions

Western-trained physicians are not the first choice of lower-income Singaporeans for seeking medical advice. Those seeing Western-trained doctors did not have improved health seeking behaviours compared to those preferring alternative medicine or consulting family.

6. HYPERTENSION MANAGEMENT IN A SINGAPOREAN LOW-INCOME COMMUNITY

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Objective

We studied hypertension management in a low-income Singaporean community and the effect of regular follow-up.

Methods

Participants were recruited in Jan 2009 and Jan 2010 from a public rental flat precinct. Socio-demographic details were collected and blood pressure (BP) measured. For participants in 2009, known hypertensives not on treatment/with suboptimal control, and newly-diagnosed hypertensives were encouraged to go on treatment and improve BP control via phone calls/house visits, and we re-measured treatment and control a year later. Backward logistic regression was utilised and significance was set at $p<0.05$.

Results

Participation was 89.0% (357/400). 209 residents were recruited in 2009 and 148 in 2010. At baseline, prevalence, awareness, treatment and control of hypertension was 63.9%, 61.8%, 69.5%, and 43.9%. Awareness was higher in diabetics, dyslipidemics, ≥ 60yrs and those regularly seeing doctors. Treatment was more likely in ≥60yrs, but less likely in those needing financial aid. Control was less likely in employed. Of the 209 participants recruited in 2009, 143 had hypertension, 61 were newly diagnosed and 82 were known hypertensives. Post-intervention, of the newly diagnosed hypertensives, 6 were on treatment and 33.3% (2/6) had good control. Of the 82 known hypertensives, treatment rose from 63.4% (52/82) to 92.7% (76/82); while control rose from 42.3% (22/52) to 78.9%(60/76).

Conclusions

Hypertension awareness, treatment and control in lower-income Singaporeans is poor. A one-year follow-up improved treatment and control in known hypertensives, but not newly-diagnosed hypertensives.

7. 5AS FOR FUNCTIONAL RECOVERY

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Introduction

Primary care physicians are involved in post-acute rehabilitation. Functional impairment is known to predict carer burden, institutionalization and morbidity. Resources for rehabilitation are limited. However, there is dearth of tools that help prioritize patients in terms of likely benefit from community rehabilitation.

Objective

This study develops and validates a simple predictive tool to screen patients for potential benefit from rehabilitation.

Method

3852 eligible records of patients in a community hospital from 2002 – 08 were included. Potential (100 – admission MBI) and % Achieved Potential or AP% (MBI gain as percentage of Potential) were generated. Ability to achieve ≥ AP50% was noted in each case. MBI = Modified Barthel's Index

Randomization into Derivation (1918) and Validation cohorts (1934) was done; their baseline characteristics were similar.

Using Derivation cohort, potential predictors were tested against ability to achieve AP50%. 7 with OR > 1.5 were studied using binary logistic regression against ability to attain AP50%, leaving 5 independent and clinically significant predictors:
- Age < 80 years
- Admission MBI ≥ 50
- AMT ≥ 6
- Absent depression
- Serum Albumin ≥ 35g/L

Further categorization according to number of predictors present:
'High' (likelihood of AP50): 4 or 5
'Moderate': 3
'Low': 1 or 2

Result

Relative Risks of these 3 groups achieving AP50% were calculated in Derivation cohort and compared with those in Validation cohort, showing good concordance.

Conclusion

5'A's categorizes patients according to likelihood of achieving a certain functional status and is useful for identifying patients likely to benefit from community rehabilitation.

8. SEROEPIDEMIOLOGICAL STUDY OF MEASLES AMONG ADULT POPULATION IN SOUTHERN TAIWAN

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Purpose

Ever since universal measles vaccination in Taiwan in 1978, no measles outbreak had occurred since 1989. We conducted the sero-epidemiological study of measles among adult workers in the Tainan Science-based Industrial Park.

Material and methods

We carried out a cross-sectional study by reviewing results of medical records of annual employee health exam from July 2007 to February 2008. These participants were divided into two groups: those born before and after 1978, and we then compared the seropositivity rates for measles antibody in them.

Result

A total of 970 subjects (323 female; 647 male) were recruited and overall seropositivity rate for measles antibody was 89.2%. The seropositivity rate for measles antibody in subjects born before 1978 was higher than that in subjects born after 1978 (88.6% vs. 82.7%). Regardless of gender, the number of subjects with abnormal total-cholesterol levels was greater in the measles antibody seropositive than in the seronegative ones (male: p=0.017; female: p=0.032). Univariate logistic regression analysis revealed that the odds ratio for seropositivity rate for measles antibody of male to female participants was 1.66 (p=0.016); the odds ratio for seropositivity rate for measles antibody of participants born after 1978 relative to those born before 1978 was 0.63 (p=0.033).
Conclusions: This study revealed the seropositivity rate for measles antibody in participants born before 1978 was higher than those born after 1978; the number of participants with abnormal total-cholesterol levels was greater in the measles antibody seropositive than in the seronegative ones.

9. THE USAGE OF COMPLEMENTARY MEDICINE IN STROKE PATIENTS

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Introduction

Stroke is a major cause of disability and patients may use complementary and alternative medicine (CAM) in addition to conventional medicine in their treatment with possible implications on their health. This study determines the pattern of CAM usage in stroke patients attending a medical outpatient clinic of a General Hospital.

Methods

A cross-section of stroke patients attending medical follow-up were interviewed on CAM usage using a structured questionnaire.

Results

A total of 65 patients were enrolled into the study. The mean age was 60.1 years (SD ± 11.6; 46.2% females, 53.8% males). 52.3% used CAM.

There was no difference in usage of CAM based on age, gender and income. Among the ethnic groups, the Chinese were more likely to use CAM (p =0.026) and the Indians least likely to do so (p=0.013).

47.1 % of CAM users used it for up to a year and 17.6% for 3 or more years.
The majority used a combination of types of CAM. All patients continued to use conventional medication in addition to CAM.

Conclusions

About half of the stroke patients in this study used CAM in addition to conventional medication. As the use of CAM is common, it may be beneficial to actively identify such patients and be aware of possible adverse effects or drug interactions from such therapy.

10. TREATMENT-SEEKING BEHAVIOUR IN MEN WITH LOWER URINARY TRACT SYMPTOMS: A COMMUNITY-BASED STUDY IN SINGAPORE

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Objectives

Lower urinary tract symptoms (LUTS) are a common problem in men with increasing age. However, many men still do not seek medical advice for their symptoms. We aimed to characterize the nature of, and factors associated with, treatment-seeking for LUTS in Singaporean men.

Methods

We performed a community-based, cross-sectional study in Bedok North, Singapore. 644 male residents aged 40 and above responded to an interviewer-administered questionnaire, which elicited information on treatment-seeking for LUTS. Associations were examined using logistic regression between treatment-seeking and symptom severity (as measured by the IPSS – International Prostate Symptom Score), bother from symptoms, overall quality of life, beliefs about LUTS, and demographic factors.

Results

Overall, 70.7% of the men had one or more LUTS, and 16.5% had moderate to severe LUTS (defined as IPSS >7). Of those with moderate to severe LUTS, only 28.3% had sought help for their symptoms. The majority of those who did not seek help said that

they "did not think it was a problem." Multiple regression analysis showed that the presence of urgency, overall quality of life, bother from nocturia and age were independent factors associated with treatment-seeking for LUTS. Socioeconomic status was not found to be significantly associated with treatment-seeking.

Conclusions

Our results suggest that a large proportion of Singaporean men with moderate to severe LUTS do not seek medical advice for their symptoms. Urgency may be an important symptom in determining treatment-seeking. More research can be done to elicit the environmental factors influencing treatment-seeking behaviour.

Keywords: LUTS, treatment-seeking behaviour.

11. UNDERSTANDING THE PERCEPTIONS OF PATIENTS WITH TYPE 2 DIABETES AND BELIEFS OF CLINICIANS ON INSULIN THERAPY AT PRIMARY HEALTHCARE SETTING IN SINGAPORE

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Objectives

There is evidence to show that barriers to insulin initiation had led to unsatisfactory glycaemic control for patients with type II diabetes. However, there has not been any comprehensive descriptive study done in Singapore to describe the perception of patients and beliefs of clinicians toward insulin initiation in patients with type II diabetes. Thus this clearly shows the need for studies in this area in Singapore. The findings of this descriptive study will enable us to understand the factors influencing the perception of patients with type II diabetes towards insulin initiation. These understanding will also serve as a starting point to generate hypothesis for our future experimental research, which would be looking at strategies that will enable patients to accept insulin therapy.

This study was carried out to answer the following questions:

1. Is there consensus amongst the primary health care clinicians on some beliefs about insulin therapy; if so which ones?
2. Is there lack of consensus amongst primary health care clinicians on some beliefs about insulin therapy; if so which ones?
3. Are there associations between primary health care clinicians characteristics (i.e age, years of practice etc.) and beliefs about insulin therapy?
4. What are the perceptions of insulin therapy among insulin naïve patient with type 2 diabetes?
5. What is the association between patient's characteristics that contributed to resistance to insulin therapy?

Methods

A 30 self administered questionnaires developed by Hayes, Fitzgerald, Jacober (2008) through literature review, qualitative study and expert panel was sent to 164 doctors and 218 nurses in the National Healthcare Group Polyclinics in a sealed address written envelope via internal mail.

The survey on insulin naïve type 2 diabetes patients was conducted at Jurong Polyclinic using descriptive survey design and convenience sampling over a period of 5 months (Sept 09 to Feb 2010). A validated 20-item "Insulin Treatment Appraisal Scale" (ITAS) developed by Snoek, Skovlund & Pouwer (2007), was employed to assess their perceptions on insulin initiation through a face-to-face interview. Patient's demographic and health variables were also included in the questionnaire.

Results

47% of doctors (n = 78, mean age 37 years, 41% male, 49% with 3 to 10 years practice at primary care; 53% family medicine trained) and 67% of nurses (n = 147, mean age 41 years, 99% female, 46% > 10 years experience) responded to the survey. Primary care doctors had the greatest consensus on attitudes regarding (1) beliefs about insulin as an injection, (2) risk and benefits of insulin, (3) time needed for training, (4) adequacy of self monitoring of blood glucose and (5) the potential for hypoglycemia in elderly patients. Similarly primary care nurses also showed consensus on beliefs about (1) insulin as an injection, (2) the risk and benefits of insulin and (3) the time needed for training. There was however no significant association between the clinicians' demographic characteristics and their beliefs and attitudes towards insulin therapy. This was probably due to the small sample size.

Of 407 patients surveyed 93% thought that they were unlikely to require insulin therapy in the future. 67% of patients with type 2 diabetes were unwilling to take insulin. The most commonly expressed negative attitudes were (1) concerns pertaining to failure to manage disease, (2) being viewed as a sicker person, (3) less flexibility, (4) fear of injection, (5) more time and energy required to administer the injections, (6) fear of pain, (7) difficulty in injecting insulin at right time and at the right amount and (8) greater concern of family and friends once on insulin therapy. When compared with willing patients, patients unwilling to receive insulin therapy were more likely to be (1) afraid of injection (p < 0.01) and (2) thought injection was painful (p < 0.01).

Conclusion

The study identified a few key misconceptions and barriers regarding insulin therapy. It is recommended that education programmes should focus on increasing patient's knowledge about the progression of diabetes and interventions to address the barriers and misconceptions.