

GP-WED-001 DEMOJUAN- DEMONSTRATION AREA FOR DIABETES PREVENTION IN JUAN MINA, BARRANQUILLA, COLOMBIA

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Background: Type 2 diabetes (T2D) is one of the fastest growing public health problems in both developed and developing countries. The World Health Organization (WHO) estimates that the number of adults with T2D will more than double from 135 million in 1995 to 300 million in the year 2025 (1).

Objectives: The main goal of the project is to reduce the burden of type 2 diabetes (T2D) by educational and lifestyle interventions in the general population and in people at high risk in Juan Mina, Barranquilla, Colombia.

Underlying values and principles: Once established, T2D is difficult to treat. Despite pharmacologic treatment blood glucose levels trend to increase over time. Thus, the most efficient way to manage T2D is to prevent diabetes from developing. Also complications of T2D can best be postponed by postponing the onset of the primary disease itself.

Knowledge base/ Evidence base: Recent studies have convincingly demonstrated that prevention of T2D is possible. Lifestyle interventions and modification can significantly reduce the onset of T2D for 58% in high-risk people (2, 3). However, it is necessary to learn as to how the prevention of T2D works in different settings and population groups.

Context of intervention/project/work: The educational intervention program aims at increasing physical activity, promoting healthy nutrition and dental health and improving mental health. The core targets of the intervention are: (i) body weight reduction >5%; (ii) fat intake less than 30% of daily energy intake; (iii) saturated fat intake less than 10% of daily energy intake; (iv) fibre intake more than 15g/1000 kcal and (v) physical activity more than 4 hours/week.

Methods: The project is conducted at primary health-care level in collaboration with the local government, the public health department of Barranquilla and three local Universities. Furthermore, this project is part of the Demonstration Areas for Prevention of Chronic Diseases in Latin America network. A baseline survey consisting of interview-based questionnaire, anthropometric measurements and blood extractions will be conducted in the entire adult (18-74 years-old) population (n=5000) of Juan Mina, Barranquilla during January and May 2010. The people identified at high-risk of type 2 diabetes will be invited to join the intervention program. The intervention will be given by health-promoters who received training according to the official PAHO training manual. The study participants will form groups of 10 people and attend regular seminars during three years. During the first month, the seminars will be weekly, during the following three months the seminars will be held monthly and thereafter each third month.

Results and Conclusions: The research network has been established and the protocols have been approved. The financial resources to conduct the study are guaranteed. The instruments and logistics of the fieldwork have been successfully tested in a pilot study in autumn 2009.

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Disclosure of Interest: None declared

GP-WED-002 A DIABETES PREVENTION EDUCATION PROGRAM FOR COMMUNITY HEALTH CARE WORKERS IN THAILAND: A RANDOMIZED CONTROLLED TRIAL

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Background: The epidemic of type 2 diabetes has affected the Thai population. Overweight/obesity and unhealthy lifestyle behaviours are modifiable diabetes risk factors and need to be the focus of prevention strategies.

Objectives: To evaluate the effects of a four-month diabetes prevention education program (DPEP) on the knowledge of community health care workers (CHCWs) in intervention and control groups in Chiang Mai province, Thailand.

Underlying values and principles: Successful programs to close the gap in diabetes-related health disparities are built on strengthening the links between CHCWs and their community members; Disease prevention needs to be integrated into community-based healthcare.

Knowledge base/ Evidence base: The effectiveness of CHCWs is enhanced through training. However, their access to formal education on chronic disease prevention has been limited, especially in underserved communities in Thailand.

Context of intervention/project/work: The study was conducted in Chiang Mai province in Thailand where diabetes is a public health problem. The DPEP, developed through extensive stakeholder input, served as a basis of health promotion education, skill development and support in the intervention group.

Methods: The study had a randomized controlled design. CHCWs from 69 communities were assigned to the intervention group (n=35) or control group (n=34). All CHCWs were assessed for knowledge at baseline and at four-months. The intervention group received a training program of 16 sessions of 2.5 hours each within a four-month period. A mix of classroom and E-learning approaches was used. Assessment was based on a pretested examination addressing understanding of nutritional terms and recommendations, knowledge of food sources related to diabetes prevention and diet-disease associations.

Results and Conclusions: Overall, the knowledge at baseline of intervention versus control groups was not significantly different (56.5%(6.26), mean(SD), versus 54.9%(6.98), respectively) and all CHCWs scored lower than 70%. The lowest scores were found in the "understanding of nutritional recommendations" section (a mean score of 28% in intervention and 30% in control). After 4 months, CHCWs in the intervention group demonstrated improvement in total scores from baseline (to 75.5%(6.02), p<.001) and relative to the control group (57.4%(5.59), p<.001), as well as scores by section. The percent of CHCWs achieving a four-month total score of >=70% was 77%(27/35) in intervention and 0% in control groups. The scores of control CHCWs did not significantly differ from baseline. The DPEP was effective in improving CHCWs' health knowledge relevant to diabetes prevention. The innovative learning model has potential to expand chronic disease prevention training of CHCWs to other parts of Thailand.

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GP-WED-003 DETERMINANTS OF DIABETES SELF-MANAGEMENT: PERCEPTIONS BY PEER EDUCATION PROJECT PARTICIPANTS RESIDING IN URBAN POOR COMMUNITIES IN CAMBODIA

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Background: In developing countries the prevalence of noncommunicable diseases (NCDs) is rapidly increasing. According to the WHO, 80% of all deaths from chronic diseases occur in low- and middle-income countries [1].

Consistent with this trend, Cambodia has a considerably high prevalence of diabetes: 5% in the rural province of Siemreap and 11% in the suburban province of Kampong Cham [2]. Despite evident demand for NCD focused interventions, the Cambodian public health system predominantly targets infectious diseases and an undersupply of diabetes care continues.

Diabetes self-management interventions of weight management, physical exercise, medication management and blood glucose monitoring have been found to improve patterns of disease-management and metabolic control [3]. Specifically in a developing country like Cambodia, where access to appropriate diabetes-care is limited, people with diabetes need to self-manage their disease to prevent co-morbidities.

Objectives: Results of a 2008 qualitative study are presented. The objectives of the study were to investigate factors impeding or promoting diabetes self-management perceived by participants of the peer education project MoPoTsyo.

Underlying values and principles: Main principle during the whole study process was voluntariness and protection of anonymity of the interviewees. Objectivity, transparency and traceability were the guiding methodological principles applied for the analysis.

Knowledge base/ Evidence base: Evidence of the presented study is based on qualitative research.

Context of intervention/project/work: MoPoTsyo is a non governmental organisation (NGO) working in six urban poor communities in Phnom Penh and in 30 rural communities.

Methods: A qualitative approach was undertaken, with semi-structured interviews conducted with ten people with diabetes (eight women, two men, 35-65 years) participating in a peer education project. All interviews were recorded and transcribed. Data analysis was according to qualitative content analysis.

Results and Conclusions: Pre-existing determinants, such as situational, environmental, cultural and health related factors impacted variably as barriers and resources for diabetes self-management.

The most striking determinants of diabetes self-management were family relations; limited time and financial resources; and restricted access to health care, medications, and healthy food.

Diabetes-related knowledge was found to be an essential resource for all participants and different modes of knowledge exchange were identified as beneficial. The peer educators utilized formal teaching methods for theoretical issues and provided opportunities for informal exchange of practical knowledge and experiences within peer groups.

Diabetes self-management behaviour is closely linked to contextual determinants. The findings suggest interventions aiming at diabetes self-management must account for the pre-conditions of the target group.

References: [1] Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases 2008-2013. Geneva (Switzerland): World Health Organization, 2008.

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GP-WED-004 THERAPY COMPLIANCE WITH ORAL ANTIDIABETIC DRUGS IN PUBLIC HEALTH SYSTEM CLIENTS FROM FORTALEZA-BRAZIL

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Background: A meta analysis study showed that the average prescribed treatment adherence in patients with diabetes is of 67.5%. A systematic review revealed a percentage that ranged from 36 to 93%. In Brazil the adherence prevalence to oral antidiabetic drugs is still unknown.

Objectives: Evaluate the compliance of the pharmacological therapy in oral antidiabetic drug users.

Underlying values and principles: According to the health promotion policy in Brazil, healthy diet and physical activity practice represent health promotion actions. However, hatching of Diabetes Mellitus type 2 is mainly verified due to overweight and sedentarism. Thus, the patient becomes susceptible to other damages in case he neglects taking the antidiabetic drugs, therefore justifying prevention actions in order to avoid risks and damages. The world clinical practice has showed opposite attitudes to health promotion regarding the adherence to oral antidiabetic drugs.

Knowledge base/ Evidence base: Health promotion is based on the subject-collective, public-private, State-society articulation to break the excessive fragmentation when approaching the health-disease process, the vulnerability reduction as well as the risks and damages that happen to him. Evidence found in the literature show risks and damages occurred due to the neglect of oral antidiabetic drug treatment. First hyperglycemia occurs which, unless treated in time, favors the appearance of micro and macrovascular complications.

Context of intervention/project/work: The research was performed in 12 healthcare center units located in Fortaleza-Brazil.

Methods: A transversal study that involved 437 diabetic patients of both sexes between 18-92 years of age. Data collection occurred from March to June 2009. a structured interview was carried out at the health center to obtain socio-demographic, clinical and treatment-related data. In order to evaluate the adherence to oral antidiabetic drugs, two tests were applied in the households besides tablets counting.

Results and Conclusions: The results offered evidence that 70.3% were women, 55.8% were married, 47.8% were poor, 38.9% had less than five years of education and 41.1% were between 18-59 years of age. It was also established that 74.6%, 86.3% and 71.2% were considered non-compliers according to the tests applied. Expansion and development of primary care in the last two decades in Brazil increased the free-of-charge availability of antidiabetic drugs. On the one hand, the percentages of non-adhesion found are not justified. On the other hand, it is possible that the core of the problem is in the professional-client relationship and in the health education. Therefore, the rescue of health promotion basis need to permeate the actions of professionals involved in the diabetic patient's care.

Disclosure of Interest: None declared

GP-WED-005 HEALTH SEEKING BEHAVIOUR OF SELF-REPORTED DIABETICS: AN EXPLORATORY STUDY OF PUBLIC PARKS IN DHAKA

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Background: In 2007, the International Diabetes Federation estimated that 3.8 million or 4.8% of people living in Bangladesh already had diabetes. By 2025, that number is expected to grow to 7.4 million or 6.1% of the population. This explosion in diabetes prevalence will place Bangladesh among the top ten countries in terms of the number of people living with diabetes by 2025. This warrants an urgent attention to address this huge public health issue.

Objectives: To explore the health seeking behavior, knowledge and health care networks of self reported diabetics who use public parks in Dhaka with the intention to recommend practical strategies to manage diabetes

Underlying values and principles: In Bangladesh, most of the people seek care out of formal health system or rely on self care. One's health seeking behavior is determined by many factors including knowledge of disease, severity of illness; financial, social factors and availability of services. A better understanding of health seeking behavior and health care networks of diabetics is a new area of interest and need to be explored

Knowledge base/ Evidence base: Reorientation of primary health care should be considered. Community based care might be an effective strategy to tackle this issue by incorporating the informal health care providers into formal health system as institutional care is not enough. However, sufficient paramedical training of those informal HC providers who are already providing services at parks and close monitoring is important. Exclusion of females from these public spaces signifies the gender inequity and this should be taken into consideration in every program planning and intervention

Context of intervention/project/work: This was a cross sectional survey

Methods: The study was conducted at two public parks representing two different socioeconomic areas (one high and one lower) in Dhaka. Mixed method approach was employed. Participants were all male/female of 40 years and above, reported themselves as diabetic and came for jogging to study parks during 10-30 October, 2008. All health providers (providing services at least 1 day / week) at study parks were also included.

Results and Conclusions: Majority of diabetics using the public parks were males, in 50-60 years age group. Females made only a small portion of population surveyed. Median duration as known diabetic was 8.7 years. Most of these joggers were from high socioeconomic class with a monthly income of 10,000 taka/month or more. In terms of knowledge regarding risk factors, sign and symptoms, possible complications and the role of life style changes in delaying the onset of disease, more than 60% mentioned all of above characteristics correctly. When it came to chose health care provider for majority, 1st and 2nd choice was BIRDEM because of its' popularity, easy access and free or subsidized treatment. No one mentioned public health sector as their provider at any point in their care seeking pathway. Study participants mentioned changing diet, regular exercise, taking medicines and seeking spiritual support as life style changes adapted after advice. Half reported spending more than 1000 taka per month for their diabetic care. More than 60% reported seeking care from park providers. Providers at park were mostly young in early 20's, They were part of a bigger marketing groups involved in selling different products ranging from health related medicines to beautification materials. Almost all of them had no formal training.

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GP-WED-006 THE ASSOCIATION OF SOCIODEMOGRAPHIC FACTOR AND STRESS RESPONSE AMONG TYPE 2 DIABETES PATIENT I INDONESIA AND JAPAN

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Background: The prevalence of diabetes is rapidly increasing in Indonesia due to an increase in the occurrence of obesity, urbanization and change of life styles.

Objectives: We studied the relationship among sociodemographic factor, using traditional medicine, social support and psychological stress responses, spiritual well-being of patients with diabetes in order to improve management in urban area and rural area in Yogyakarta, Indonesia.

Underlying values and principles: Indonesia, consisting of numerous distinct ethnic, linguistic and religious groups across numerous islands that have not always been united.

Knowledge base/ Evidence base: These guidelines have been based on those of Western countries, and the influence of socio-cultural and religious background was hardly considered in the management of diabetes.

Context of intervention/project/work: A big challenge for health professionals is to develop health programs that are adapted to large polyglot Asian country in order to improve the health condition of diabetic patients and to prevent life-threatening diabetes-related complications.

Methods: Diabetic outpatients at national hospital in urban area and traditional clinic in rural area voluntarily participated in a questionnaire survey. Data from 125 patients were subjected to analysis. The questionnaires included the scales and subscales of social support, self-efficacy, psychological stress response, and demographic measure included using traditional medicine. Data were analyzed by Spearman's rank correlation test to examine the relationships between parameters, Mann-Whitney U test and Kruskal Wallis test to compare the scales by characteristics. This study was performed in September 2008.

Results and Conclusions: The data from one hundred twenty five patients who answered all the items in the questionnaire were subjected to statistical analysis. They were mostly elderly, non-obese, married, Muslim, and with an average of about 4 members in the family. We asked that "The next step done after being known that they was infected by DM". The patient in urban area answered that "carry out to the hospital/public health center". On the other hand, The patient of rural area answered to "Let it out". The diabetic patients living rural area perceived a statistically higher level life scheme of well-being scale. Patients receiving assistance from natural power perceived a lower level of emotional stress in diabetics. The results of this study may provide useful information for community-based strategies of diabetes management in Yogyakarta. Additional research is necessary in order to explore the in-depth determinant of these health behaviors in the management of chronic disease in this same area. Socio-cultural factors in Asian countries, however, are different among areas and countries, which would affect outcome of the intervention in educational model. To generalize this study to other community, it is crucial to take social cultural back ground in each area in account.

Disclosure of Interest: None declared

GP-WED-007 EFFECTS OF THAI YOGA ON METABOLISM AND CARDIOVASCULAR SYSTEMS IN TYPE 2 DIABETES.

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Background: Thai Yoga (TY), a traditional form of exercise, has been recommended by the Public Health Ministry of Thailand as a potentially acceptable form of activity for keeping people fit. While commonly used by middle-aged adults.

Objectives: To investigate the effects of Thai Yoga on metabolism and cardiovascular systems in middle-aged adults with type 2 diabetes.

Underlying values and principles: Diabetes contributes to physiological and metabolic changes including reduced oxidation rate.

Knowledge base/ Evidence base: Similar to Yoga and Tai Chi, TY may have biochemical benefits that are related to psychological functioning, as well as provide it be an appropriate choice for middle-aged adults with type 2 diabetes.

Context of intervention/project/work: To study the effects on substrate utilization in TY, 15 diabetic subjects rested in supine for 30 min and then performed TY for 30 min.

Methods: Expired-air and ECG were recorded continuously before and during exercise.

Results and Conclusions: Results showed that TY could be classified as a light intensity exercise as indicated by $28.34 \pm 2.32\%$ O₂max, $50.02 \pm 2.3\%$ HRmax and 1.51 ± 0.11 MET. During TY, respiratory rate was 17.22 ± 1.22 bpm and tidal volume was 0.93 ± 0.08 bpm in type 2 diabetes. Fasting blood glucose and insulin resistance was significantly reducing ($p < 0.01$, $p < 0.05$). While they used more carbohydrate than fat during TY as the major fuel ($P < 0.05$). The majority of the benefits of TY is traditional form of exercise which the results of the study indicated that TY was a low-impact alternative. The improvement of blood glucose, insulin resistance, CHO oxidation rate, respiratory measures and blood pressure may contribute to reduction in metabolic and cardiovascular risk. However, HDL, LDL, TG, total cholesterol, and Fat oxidation rate may also improve if these are increasing in volume or amount of exercise and duration of TY. Its benefits may include improvement in exercise tolerance, increasing in functional capacity of cardiovascular system.

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GP-WED-008 EVALUATION OF EDUCATION PROGRAM ON TYPE 2 DIABETES MELLITUS IN PRIMARY HEALTH CARE

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Background: Studies[1,2] on primary health care have reinforced that systematized learning is necessary to improve the quality of care provided to individuals with diabetes, through the implementation of programs using strategies that promote behavior change, in agreement with the sociocultural context and with the lifestyle of individuals.

Objectives: To evaluate the effectiveness of education program of individual with type 2 diabetes.

Underlying values and principles: The workshops were developed using a participative and problem-posing methodology[3], using the participants' experiences and knowledge as the starting point.

Knowledge base/ Evidence base: It was evidenced that the intervention on the competencies for self care associated with nutrition and physical activities, with emphasis on the dialogic, was capable of awakening the professionals' analytical, critical and creative potential and make education practice effective.

Context of intervention/project/work: The development and education of health professionals was performed through education workshops to promote diabetes self care, as a way of updating the professionals' knowledge about diabetes and healthy life habits, which are necessary to treat the disease. Education at the individual level counted with the participation of a multidisciplinary team who was instructed about their roles and responsibilities in terms of implementing the structured education process in their practice.

Methods: Every health professional (n=85) working at basic health units in the city of Belo Horizonte, Brazil who participated in the workshops for diabetes education from may to december 2008 were evaluated through an interview. A cross-sectional study was performed with individual (n=161) with diabetes, who were seen by the health professionals of these units. The individual were selected and evaluated by means of specific questionnaires that addressed their diabetes knowledge, attitudes, behavior change and quality of life. A clinical evaluation was performed before and after the intervention.

Results and Conclusions: The program was effective for the professionals and the information collected on individual showed there was a reduction in HbA1c levels ($p = 0.000$) and improvement in the knowledge test ($p = 0.008$). The orientation in self care improved the quality of the individuals' care based on the orientations they received from primary health care professionals.

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Disclosure of Interest: Is no conflict of interest to declare

GP-WED-009 HEALTH WORKSHOPS: EDUCATIONAL ACTIONS IN DIABETES TO PROMOTE SELF CARE IN PRIMARY HEALTH CARE SERVICES IN BELO HORIZONTE, BRAZIL

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Background: To present the educational actions in Diabetes toward the promotion of self care associated to the knowledge and attitudes about the disease, healthy nutrition, and exercise that favor the behavioral change necessary to improve one's metabolic control and quality of life[1].

Objectives: Contributing to the education of primary health care workers to implement and evaluate Diabetes education programs.

Underlying values and principles: The premises of this specific work are based on the critical concept of health education and on Paulo Freire's education theory[2].

Knowledge base/ Evidence base: The professionals revealed that the teaching/learning process and the workshop contents were considered excellent, as well as the integration between participants and professors.

Context of intervention/project/work: Participative investigation was the methodology used in the workshops. It is based on recreational techniques, experiences and group activities with a view to creating a space for debates, developing knowledge and proposing service improvements.

Methods: Participants were 85 health professionals (physicians, nurses, social workers, dentist, nutritionists, and psychologists) and researchers in the fields of nursing and nutrition at Universidade Federal de Minas Gerais, Brazil. The workshops were developed in two stages: applying the check list about the competencies of self-managing health care; updates about healthy life habits, associated to nutrition and exercise. The themes were addressed using recreational activities, educational games, and case studies so that each participant could express their knowledge and share it with the other professionals.

Results and Conclusions: The findings from the check list showed that health professionals have a need for knowledge centered on diabetes education and on the physiopathology of the disease. It was shown that education was efficacious in awakening health professionals to their reflexive, critical and creative potential regarding educational practices. The partnership between teaching and service contributed to updating the professionals' knowledge, and improving educational program plan and organization, valuing interdisciplinarity. The workshops contributed to planning the educational program and structuring an evaluation model of Diabetes promotion and education.

References: 1.Torres HC, Franco L, Stradioto M, Hortale V, Shall V. Avaliação estratégica de educação em grupo e individual no programa educativo em diabetes. Rev Saúde Pública. 2009; 43(2):291-298.

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Disclosure of Interest: Is no conflict of interest to declare.

GP-WED-010 CHALLENGES IN THE EFFECTIVENESS OF EDUCATIONAL ACTIVITIES IN DIABETES MELITUS: THE PERSPECTIVE OF PRIMARY HEALTH CARE PROFESSIONALS

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Background: Authors [1,2] also state that to achieve effective diabetes education it is necessary to provide health care professionals with training, updated knowledge on the disease, educational skills, effective communication, listening and comprehension, and use dynamic and interactive strategies with a view to reduce the barriers to providing quality patient care.

Objectives: Analyze primary health care professionals' perception, knowledge and practice related to educational strategies in diabetes.

Underlying values and principles: The premises of this specific work are based on the critical concept of health education and on Paulo Freire's education theory[3].

Knowledge base/ Evidence base: The reorganization of the educational diabetes program, including the competencies of each professional, the goals of educational actions and the evaluation of interventions, to establish strategies for health promotion and for preventing and controlling diabetes.

Context of intervention/project/work: The focal group was to know the educational practice and the factors that act as barriers or facilitators in teaching diabetes self-management.

Methods: Participants were twenty-three health professionals (physicians, nurses, nutritionists, physiotherapists and a dentist) working at basic health units in the city of Belo Horizonte, Brazil. All subjects participated in focal groups with the purpose of discussing about their educational practice and challenges regarding the effectiveness of teaching self-control in diabetes.

Results and Conclusions: Results were organized based on the identification of the following categories:

1) professionals' lack of preparation and technical knowledge regarding some aspects of the disease and educational activities, 2) work condition and organization; 3) issues related and/or associated with patients themselves; and 4) care model for patients with diabetes. This study shows the importance of providing a new direction to educational activities, competencies, and health professionals' goals, as well as to evaluate the educational interventions to establish strategies for health promotion and for preventing and controlling diabetes.

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Disclosure of Interest: All authors participating were also drawing and writing the text.

Is no conflict of interest to declare.

GP-WED-011 PILOTING A COMMUNITY INTERVENTION UNIQUELY TAILORED TO THE ISRAELI YEMENITE ADULT TYPE 2 DIABETIC POPULATION: LESSONS LEARNED

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Background: The rising prevalence of type 2 diabetes in Israel is accentuated in the the Jewish Yemenite population, most probably reflecting a distinct Yemenite diabetogenic profile triggered by the dramatic increases in BMI observed in this unique ethnic group.

Objectives: This exploratory pilot project was designed (i) to identify the barriers to optimal health behavior and quality of life in the Israeli Yemenite type 2 diabetic population, and (ii) to develop, implement and evaluate a pilot intervention addressing these barriers.

Underlying values and principles: This theory- and data- driven intervention was developed in cooperation with the community members and designed to facilitate capacity building and sustainability. The intervention was delivered in a culturally sensitive manner, tailored to the community's ethnic and religious background.

Knowledge base/ Evidence base: The described intervention addressed the barriers on the intrapersonal, interpersonal and community level (socio-ecological model), utilizing behavior and environment theories.

Context of intervention/project/work: The intervention was implemented in the Clalit Health Services Rosh Ha'ayin primary care community clinic, Israel, with the support of the Department of Health Education and Health Promotion. This clinic predominantly serves Yemenite Jews of low SES, with a high prevalence of type 2 diabetics who suffer from poor glycemic control and diminished quality of life.

Methods: Quantitative and qualitative outcomes were assessed. Modifiable barriers to optimal health behavior and quality of life were qualitatively assessed through in-depth phone interviews conducted with 24 type 2 diabetics treated at the clinic, ages 45-60, HbA1c >8.5%. The identified barriers included; (i) stress, (ii) insufficient social support and (iii) insufficient knowledge regarding nutrition. 15 of the interviewed diabetics were recruited according to readiness for change, to participate in a 10 week intervention (1.5 hours per week). This intervention was specifically designed to address the identified needs utilizing psycho-educational, CBT and relaxation methodologies. The intervention was delivered in a group setting co-led by a physician and social worker. Metabolic measures and cardiovascular risk factors were assessed pre and post intervention. Participants' level of satisfaction with the intervention were qualitatively assessed during the final session and in a focus group held 6 months post intervention.

Results and Conclusions: 13 (87%) of the participants attended at least 9 sessions. The physicians reported an improved frequency of self-initiated visits to the clinic. The participants reported high levels of satisfaction with the intervention (immediately and 6 months post intervention), particularly the stress-reduction and enhanced support network (within-group and within-clinic). The metabolic and cardiovascular risk factors displayed mixed results (immediate and 6 months post). The participants continued to meet as a non-guided self-help group, however subsequently requested to temporarily resume guided group sessions. Other type 2 diabetics from the clinic expressed interest in participating in future interventions. The lessons learned from the needs assessment, intervention design, implementation and evaluation phases of this exploratory pilot project can be utilized to inform the design, implementation and evaluation of a large-scale intervention to be delivered to the Israeli Yemenite type 2 diabetic population. Furthermore, similar approaches can be applied when designing interventions tailored to additional adult type 2 diabetic populations.

Disclosure of Interest: O. Frenkel, Clalit Health Service, Consultant

GP-WED-012 THE RELATIONSHIP BETWEEN THE CONDUCT BY THE MUSLIM WAY AND SELF-CARE BEHAVIOR OF THE PATIENTS WITH DIABETES MELLITUS.

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Background: Diabetes mellitus is a chronic illness that undermines the quality of life. Allow people with weak health. Cannot work normally and economic impact of family and social. Self-care allows patients to prevent and mitigate the severity of the disease. However, for patients with diabetes mellitus, followed Muslims activity may affect the way Muslims in promoting self-care or may conflict with health care when the condition is deviant.

Objectives: The objectives were to study 1) the conduct by the Muslims way of the Patients with Diabetes Mellitus. 2) self-care behavior of the Patients with Diabetes Mellitus. And 3) the relationship among the conduct by the Muslims way and self-care behavior of the patients with Diabetes Mellitus.

Underlying values and principles: Currently causes of health problems are from the changing in lifestyle and behavior. This made people with chronic illnesses such as diabetes mellitus. So health deviation self-care are necessary. Because of, people can adjust their role in overseeing the safety of the severity of the disease. (Orem,1991). The views of Muslims believe that every illness there is a different treatment. However, while restrictions on the way Muslims conduct may affect the treatment in each model.

Knowledge base/ Evidence base: Severity prevention of diabetes mellitus can be controlled by food, using medicines and exercise. An activity to do with their patients regularly. In diabetic patients who practice their religion Islam that Muslims must follow the course every day may be effective in promoting self-care or may conflict with health care when the condition is deviant.

Context of intervention/project/work: The finding led to an approach in advising lives of patients with diabetes mellitus, consistent life and conduct the main Muslim and use as guidance in creating better cooperation in the conduct of Muslim diabetes mellitus patients.

Methods: This study was a descriptive research. Collecting data by questionnaire with 3 parts as follow as: Part I: Demographic, Part II: Conduct by Muslim way, Part III: Self-care behavior. The reliability of the instrument was examined with Cronbach's alpha coefficient demonstrating the value of .77. Pearson Product Moment Correlation Coefficient were applied to determine the relationship among conduct by the Muslims way and self-care behavior.

Results and Conclusions: The results showed that:

Conduct the Muslim way of diabetes mellitus in a well. The maximum average in the care of personal hygiene in prayer and the average minimum in dining and drinks in fast.

Self-care behaviors of diabetes mellitus patients in a well. The average maximum in personal hygiene care and the average minimum in the exercise.

Conduct by way of Muslim behavior is associated with self-care of diabetes mellitus patients. Statistically significant at .001.

References: Orem, D.E. (1991). Nursing Concepts of Practice. 4th . St. Louis : mosby Year Book.

Disclosure of Interest: Doungjai Plianbumroong, Borommarajonnani College of Nursing Yala, Grant Research Support

GP-WED-013 FACTORS INFLUENCING HEALTH PROMOTION ON DIABETIC CARE AMONG THAI ELDERS

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Background: Depression among Thai dwelling elders was about 22%. There was a statistically significant negative relationship between depression and functional ability among elders. Elderly had moderate level on social support from their families. The high self-esteem correlated on high health promotion among elderly. The depression, social support, and self-esteem had not been investigated how they influence on health promotion among Thai diabetic elders.

Objectives: The study is to investigate predictors of depression, social support, and self-esteem through health promotion on diabetics care among Thai elders.

Underlying values and principles: The social support and self-esteem in Thai culture encourage Thai diabetic elders to practice on health promotion. Stress on diabetic problems could manipulate on health promotion on their diabetic problems. The ultimate outcomes are to increase life longevity and enhance quality of life Thai elders.

Knowledge base/ Evidence base: The social support, depression, and self-esteem among Thai elders affect on health behavior. High stress, low social support and self-esteem would change on health behavior to promote health care among elder. Social determinant of health was utilizing on this research project (Marmot & Wilkinson, 1999 & 2006).

Context of intervention/project/work: The researchers contacted the director of primary health care units to explain how to collect data by interviewing elders. Nurses and volunteers in communities helped the researcher to complete questionnaires about 1 hour since January through November, 2005.

Methods: Subjects were interviewed at diabetic elders' home about 1 hour in the Northern area of Thailand. Thai elders (n=120) were randomized to participate on this study. Descriptive statistics and Hierarchical multiple regression analysis tests were applied to address the research questions. The $\alpha=.05$, medium effect size (.15), and $b=.97$ were set for this study.

Results and Conclusions: The mean age in the sample was 68 years. Most of the subjects (54%) were female.

Three independent variables were hypothesized to influence health promotion on diabetic care among Thai elders: depression, social support, and self esteem. The three IVs explained 37% of the variance in the DV, which was a significant amount ($F = 22.9$, $p < .001$). Of those, depression has the largest relative influence ($\beta = -.45$).

References: Marmot, M. G. & Wilkinson, R. G. (1999 & 2006). Social determinants of health. Oxford; New York: Oxford University Press.

Disclosure of Interest: None declared

GP-WED-014 DIABETES AND DISADVANTAGE: EXPERIENCE OF MEDICAL MANAGEMENT IN A LOW INCOME AREA IN PERTH, WESTERN AUSTRALIA

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Background: Following a global trend, diabetes prevalence is increasing in Australia. An estimated 700,000 Australians, or 3.6% of the population, had been diagnosed with diabetes in 2004-05. This represented double the proportion recorded in 1989-90. Figures show stark inequalities in the occurrence of disease and in clinical outcomes among Indigenous people, where the: prevalence of diabetes is estimated to be over three times that of non-Indigenous people; death rate from diabetes is almost 12 times higher; and death rate from renal complications is 19 times higher. Among the lower socioeconomic (SE) groups, diabetes prevalence and death rate are nearly twice as high for those in the lowest quintile than for those in the highest (1).

Objectives: The objectives of the study were to explore the attitudes and experiences of disadvantaged people living with type 2 diabetes (T2D) with respect to their medical management, analyse their perceptions of the quality of care received, and explore the impact on self-management.

Underlying values and principles: The study was positioned within a social justice and health equity framework, with a strong emphasis on the social determinants of health.

Knowledge base/ Evidence base: In Australia, people in the lowest SE groups are less likely to be under the routine care of a general practitioner (GP) for the management of their diabetes (2). Tabrizi et al explored the needs, expectations, and experiences of people living with T2D on the quality of care received, and found that education and information, diet, and good communication with their clinician were the most important aspects (3). No qualitative studies were found in the literature reviewed that explored how low SE groups living with T2D in Australia experience the medical management of their disease, and how this might impact on self-management.

Context of intervention/project/work: This work was part of a broader qualitative PhD study exploring the impact of disadvantage on T2D.

Methods: Data were collected through two focus groups held in 2008 followed by 28 semi-structured interviews held throughout 2009. The sample comprised 38 participants, 18 Indigenous and 20 non-Indigenous, and was recruited from areas with high indices of SE disadvantage in the metropolitan area of Perth, Western Australia. Indigenous participants were recruited in collaboration with Diabetes WA's Aboriginal Health team, and Derbarl Yerrigan, an Indigenous organisation providing healthcare services to Aboriginal clients in the sample area. Participants' consent - including consent to dissemination of results - was obtained prior to data collection. Deductive data analysis identified conceptual categories from the theoretical concepts underpinning the study, more specifically, a conceptual framework for the relationship between SE status and T2D (4), while an inductive approach was adopted to identify new themes.

Results and Conclusions: Most participants reported accessing a GP regularly for the management of their diabetes. Access to dietitians and podiatrists was limited. Views on quality of care were mixed, and were formed around personal characteristics rather than technical aspects. Perceived need, negative experiences, cost, and lack of information influenced healthcare seeking behaviour, and community-based support was seen as a priority. In an increasingly urbanised world, there is a need for accessible community-based diabetes services in low SE areas to provide adequate, tailored resources which empower the individual to manage their disease with the context of their cultural, social and financial circumstances.

References: 1. AIHW. Diabetes: Australian facts 2008. Canberra: AIHW; 2008.

2. Overland J, Hayes L. Social disadvantage: Its impact on the use of Medicare services related to diabetes in NSW. ANJPH 2002;26:262-65

3. Tabrizi JS, Wilson AJ, Coyne ET, et al. Clients' perspective on service quality for type 2 diabetes in Australia. ANZJPH 2007;31:511-15

4. Brown AF, Ettner SL, Piette J, et al. Socioeconomic position and health among persons with diabetes mellitus: A conceptual framework and review of the literature. Epidemiol Reviews 2004;26:63-77.

Disclosure of Interest: None declared.

GP-WED-118 SCHOOL BASED INTERVENTIONS FOR REDUCING RISK FACTORS FOR CHRONIC NON-COMMUNICABLE DISEASES IN KERALA, INDIA

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Background: Chronic Non-Communicable Diseases (NCDs) are emerging as epidemics in low income countries such as India. Community based interventions to control NCDs are limited in these populations. The Indian State of Kerala, the most advanced in epidemiological transition, is undertaking a pilot community intervention project along with China, Mexico and the UK supported by the Oxford Health Alliance.

Objectives: To find out whether school based interventions will reduce three major risk factors of NCD namely tobacco use, unhealthy diet and physical inactivity

Underlying values and principles: School based interventions to reduce major risk factors such as unhealthy diet, physical inactivity and tobacco use are likely to reduce these risk factors among children.

Knowledge base/ Evidence base: Seeds of NCDs are planted during childhood. Avoiding these risk factors early in life will reduce NCDs in adult life.

Context of intervention/project/work: School based interventions, if found successful, can be replicated at the national and international levels.

Methods: A quasi experimental design was used in this study. Data were collected from 2212 children from 19 intervention schools and 2252 children from 20 control schools. Information on diet, physical activity and tobacco use was collected using a structured interview schedule. Preliminary analysis of 400 children (mean age 13 years, 50.50% girls) from the intervention school was done using SPSS. Children below median score of assets were grouped into poor and the others into non-poor category.

Results and Conclusions: Sweets consumption was significantly higher ($p=0.01$) among non-poor children (51.5%) compared to poor children (38.2%). Sugar consumption and sweetened beverage consumption was significantly higher ($p=0.01$) among boys (17.7%) compared to girls (9.2%). Fatty food consumption was significantly higher ($p= 0.032$) among children of less educated mothers compared to their more educated counterparts. More than 30 minutes of exercise per day was reported by 68% of boys compared to 50% of girls ($p < 0.001$). Walking or biking to school was reported by 77% of children of less educated mothers compared to 85% of children of more educated mothers ($p =0.034$). There was difference between genders for tobacco use, for boys tobacco use was reported at 7% compared to 1% for girls ($p < 0.05$). Efforts need to be made to enhance physical activity among children focusing on girls, and against tobacco use focusing boys.

Disclosure of Interest: None declared

GP-WED-119 EVALUACIÓN DE LA CALIDAD DE VIDA DE LOS ESCOLARES DE ESCUELAS PÚBLICAS DE SÃO JOSÉ DA BARRA - MINAS GERAIS / BRASIL

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Antecedentes: Aunque el término calidad de vida es ampliamente utilizado por la gente e incluso los medios de comunicación, su definición es compleja e imprecisa, ya que implica diversos aspectos de la vida del individuo como su estado de salud, vivienda, nutrición, autoayuda, las relaciones personales, edad, grupo de edad el entorno cotidiano, entre otros. Así que, dado su carácter subjetivo y multidimensional, es difícil de medir, una vez que solamente la propia persona es capaz de informar sobre sus percepciones acerca de su calidad de vida.

Objetivos: Evaluar la calidad de vida de los niños de 7 a 12 años en dos escuelas públicas de São José da Barra, en el estado de Minas Gerais.

Valores y principios subyacentes: Calidad de vida de los niños.

Base de conocimiento / base de evidencia: Promoción de salud.

Contexto de la intervención / proyecto / trabajo: Escuelas promotoras de salud

Métodos: Se evaluaron 232 estudiantes, 143 estudiantes de la escuela que ofrece asistencia educativa a 4 horas al día y 89 estudiantes de la escuela que ofrece asistencia en periodo integral de 8 horas al día con actividades extracurriculares, como clases de baile, artes marciales, la música, la horticultura, entre otros. Se utilizó un cuestionario AUQEI "Escala de Evaluación de la Calidad de Vida de los Niños" (Autoquestionnaire qualité de vie Enfant Imagé), integrado por 26 preguntas objetivas, con un puntaje posible 0 a 78 puntos. Más de 48 puntos el niño tiene buena calidad de vida y por debajo de eso, deterioro de la calidad de vida.

Resultados y Conclusiones: En la escuela normal, el 58% (83/143) de los estudiantes tenían buena calidad de vida y el 42% (60/143) tuvo un deterioro de la calidad de vida. En la escuela de tiempo completo, el 81% (72/89) de los estudiantes tenían una buena calidad de vida, siendo que el 19% (17/89) fueron considerados con un deterioro de la calidad de vida. La escuela de tiempo completo mostraron una proporción a más estudiantes con una calificación de buena calidad de vida en comparación a los alumnos del período escolar normal. Este resultado puede sugerir que la escuela de tiempo completo a través de diversas prácticas educativas, puede aumentar las oportunidades para que los estudiantes desarrollen sus capacidades y potencialidades individuales, a lo que se reflejó positivamente en su calidad de vida. Así que la escuela se encuentra dentro de una rica y capaz de promover la salud, si las políticas públicas están bien diseñados y dirigidos a este sector.

Declaración de intereses: No declarado.

GP-WED-120 PROMOUVOIR LA SANTÉ DES JEUNES RÉDUIT LES INÉGALITÉS SOCIALES DE SANTÉ

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Background: L'AFPSSU, organisation non-gouvernementale, regroupe en France les professionnels, appartenant pour la grande majorité à la fonction publique, qui ont pour but de contribuer au développement de la promotion de la santé et du bien être en milieu scolaire et universitaire. Cette association existe depuis 1938 et a progressivement évolué de l'hygiène scolaire à une approche globale de la santé selon les chartes d'Ottawa et de Bangkok.

Les membres de cette association ont le privilège d'observer et d'intervenir auprès d'une classe d'âge, au moins durant la période d'obligation scolaire, c'est-à-dire jusqu'à 16 ans

Objectives: Ses objectifs sont :

Aider les élèves, les étudiants, les familles et les professionnels. en développant des liens de proximité d'information et de soutien.

Organiser des actions de formation des professionnels intervenant auprès des jeunes dans la perspective d'amélioration des connaissances et des compétences.

Accompagner la réflexion des parents et des professionnels, afin qu'ils puissent concevoir des projets qui permettent à l'enfant de construire son estime de soi.

Soutenir le développement de projets visant la promotion de la santé physique et mentale et la prévention des problèmes auxquels se trouvent confrontés les jeunes

Faciliter la diffusion d'informations permettant d'approfondir les connaissances dans le domaine de la Santé et de la sécurité à l'École et à l'Université.

Favoriser la création d'un réseau d'acteurs dans le dessein de faire œuvre commune pour améliorer la santé globale des jeunes scolarisés.

Underlying values and principles: LA SANTÉ A L'ECOLE C'est

- Agir pour que ces jeunes prennent en charge leur santé et aider les plus vulnérables et les plus démunis en leur donnant une meilleure image d'eux-mêmes

- Tenter de créer dans l'École un climat de confiance et de dialogue entre jeunes et adultes pour une réelle prise de conscience des problèmes de notre société

- Engager sa conviction pour que la santé soit reconnue comme facteur d'insertion dans l'accès à une intégration scolaire et sociale.

Knowledge base/ Evidence base: Les missions étendues des professionnels de la santé scolaire et universitaire les obligent à ordonnancer leurs priorités d'intervention en fonction de contraintes qui sont les examens de dépistage, les situations d'urgence épidémiques et sociales, les orientations politiques nationales et locales en accord avec les besoins et les demandes des populations desservies.

Les corps professionnels concernés ne bénéficient pas d'un grand soutien de leur administration et ont des effectifs restreints.

Context of intervention/project/work: Un effort considérable de publications, colloques biannuels, productions via Internet, collaborations dans des revues scientifiques a contribué à faire connaître le travail de ces équipes pluriprofessionnelles.

Methods: Pour vivifier le travail de terrain, des concours d'actions de promotion de la santé sont organisés en fonction des grands thèmes annuels retenus.

Results and Conclusions: En 2010, les prix sont décernés à partir des travaux d'équipes investies dans le champ de la nutrition, de l'intégration des enfants handicapés et de quelques points innovant concernant les nouvelles technologies de l'information.

References: www.afpssu.com

Disclosure of Interest: none declared

GP-WED-121 FACILITATING AN EQUAL AND CHILD FRIENDLY SCHOOL HEALTHCARE SERVICE

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Background: School healthcare service complements and supports the school's academic mission while promoting and improving students' health. School healthcare should be based on evidence and respond to pupils need.

The Foundation for Healthcare at Tallinn Schools launched the competition for best healthcare office at schools. In collaboration with the city government of Tallinn and Tallinn Health College healthcare offices and the satisfaction with and child-friendliness of school healthcare service were evaluated in all Tallinn schools.

Objectives: The aim of the competition is to raise the quality of healthcare service at schools; recognize the good work of school healthcare and school personnel whose initiation and support has granted the requirements-met and child-friendly healthcare offices; enhance the collaboration between healthcare and educational sectors.

Underlying values and principles: The basic principle for evaluating healthcare offices is social model of health: focus on the young person as individual in a dynamic environment, the school. Care, open communication, competence, empowerment and collaboration between various professional groups are the core values in health care service.

Knowledge base/ Evidence base: The results of the project were based on the premise that facilitating and recognizing health care and school personnel good work can be promote an equal access and quality of health care service.

Context of intervention/project/work: The criteria for evaluation and general rules of the competition were sent to all schools and their healthcare offices at the beginning of the school-year of 2008/2009. For the evaluation of the offices a jury was formed of regional health promotion specialists, 2nd year students of Tallinn Medical College and board members of The Foundation for Healthcare at Tallinn Schools. In April and May 2009 the jury assessed how the healthcare offices met the previously developed requirements and evaluated pupils' satisfaction with the service.

Methods: The criteria for the evaluation of school healthcare offices were developed. The jury assessed together 82 schools with 42665 students in Tallinn city. Pupils were interviewed in younger and older age-groups in order to evaluate the satisfaction with and child-friendliness of school healthcare service.

Results and Conclusions: The evaluation proved a positive change in the quality of work of school nurses and doctors according to the change of school healthcare system. More effort is currently put in prevention and risk-assessment of disease than in treating. Very many pupils stated that their school nurse and doctor are always caring and friendly towards students and that they trust their school medical personnel.

Disclosure of Interest: None declared

GP-WED-122 NURTURING FIRM FOUNDATIONS – SINGAPORE’S STRATEGIC ENGAGEMENT OF PRE-SCHOOLERS IN HEALTH PROMOTION

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Background: Many chronic lifestyle diseases are preventable through the inculcation and adoption of healthy practices which are best shaped from young. Health promotion defined as the process of enabling individuals to increase control over and improve their health (WHO) should embrace a life-cycle approach where interventions are instituted for different age groups beginning from the early pre-school years.

Objectives: This presentation showcases Singapore’s strategic engagement of pre-schoolers and pertinent stakeholders in health promotion and highlighting key challenges in shifting such efforts upstream.

Underlying values and principles: Pre-schoolers undergo rapid cognitive development and behavioral adaptation. It is during this period that most habits and behaviours, including health-related ones, are shaped.

Knowledge base/ Evidence base: Many lifestyle practices such as dietary habits and taste preferences are inculcated from a young age. It is therefore essential to expose our young to preventive health promotion interventions from an early age to ensure that positive healthy lifestyle practices are developed from young.

Context of intervention/project/work: The Health Promotion Board, Singapore introduced the (HPS) initiative to the pre-schools through the CHampioning Efforts Resulting in Improved School Health (CHERISH) Junior initiative. Through CHERISH Junior, pre-schools develop a vision and mission for the health of their staff, children, families and community. They are also empowered to establish themselves as health promoting settings to enable their children to achieve optimal health. To facilitate the planning of health promotion initiatives in pre-schools, HPB offers a grant to support them in their endeavours. To provide supportive health promoting environments, child care centres participate in the Healthy Eating in Childcare Centres Programme where healthy food service guidelines are provided. Capacity building of the young is also a key tenet of such early health promotion interventions. Interactive child-centric activities such as skits, competitions, songs are used to build action competence for healthy living in the pre-schoolers. Community action is garnered through the training of teachers and parents in relevant child health issues. Preventive health services are made available through immunisation, regular vision screening and oral health care services.

Methods: Such early health promotion efforts are regularly reviewed and evaluated through face-to-face qualitative surveys as well as pre- and post-programme surveys.

Results and Conclusions: On average, the pre-school health promotion initiatives reach out to over 44,000 children and nearly 5,000 pre-school teachers and 125,000 parents are trained annually. The engagement of young children and relevant stakeholders in early health promotion efforts will leave an indelible impact on the young during their growing years and later life to help them achieve optimal health.

Disclosure of Interest: None declared

GP-WED-123 “HEALTH PROMOTING SCHOOLS” INITIATIVE USING PERSONAL HYGIENE AS ENTRY POINT IN NAIROBI'S INFORMAL SETTLEMENTS PRIMARY SCHOOLS

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Background: Health promoting schools (HPS) strive to improve the health and academic performance of children through a comprehensive health program, using a major health need as an entry point. This initiative is spread globally with the support of WHO regional offices and local authorities. In Kenya, a few small scale projects were conducted using some of the HPS components. The government of Kenya has recently launched a school health policy document which follows the HPS guidelines, but is yet to be implemented. This concept is mostly needed in informal settlements (slums) areas, where basic water and sanitation conditions are poor and children suffer from higher rates of mortality and morbidity and lower academic performance than other children in Kenya

Objectives: 1. To evaluate the extent to which the schools took action and implemented the HPS concepts as a result of an intervention 2. To identify determinants that support or challenge the success of implementation

Underlying values and principles: Equity, accountability and partnership are the core values. The intervention is based on the WHO principles of HPS

Knowledge base/ Evidence base: Studies conducted in other countries (China, HK, Australia, Europe) identified the supporting factors and challenges for the success of the program. They also supported the argument that if successfully implemented, the initiative has a positive impact on well being and academic performance

Context of intervention/project/work: Needs assessment that was conducted prior to intervention identified personal hygiene focusing on hand washing (HW) using soap as an entry point. Components: a. Change of school policies and structure by appointing school health coordinator and committee and revision of school mission b. Provision of supportive environment by ensuring accessibility of water and soap for HW c. Coordinators and teachers training d. Mainstreaming hygiene education and life skills into lessons and extra-curricular activities. e. Parents and community partnership

Methods: 11 primary schools including 151 teachers, 6,010 students and their families from Nairobi's Korogocho slums participated in the intervention from March-November 2009. Entry point was based on needs assessment. Process evaluation tools included a structured interview conducted by a trained interviewer twice a month. School environment was assessed through a visit to the water and sanitation facilities including observations on students' HW behaviors

Results and Conclusions: Health committee comprising parents, teachers and students was established and HW facilities and soap were introduced in all schools. 3 days coordinators training and 2 sessions of teachers training were completed. Hygiene education and life skills were included, but in some schools the main activities were through health clubs and other extracurricular activities. In all schools observation proved an increase in HW before eating and after visiting the toilets. Schools differed in the level of parent integration. The extent to which the program was successfully implemented was strongly linked to the support of head teacher and capacity of health coordinator; and was more successful in the informal schools than in the public ones.

The personal hygiene as an entry point was very positively accepted and assimilated by the school community and has a potential for implementation of the HPS model as a whole.

Disclosure of Interest: None declared

GP-WED-124 EVALUATION OF A WELLNESS CENTRE IN A RURAL SECONDARY SCHOOL IN ONTARIO, CANADA

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Background: This paper reports on the results of a survey conducted at West Elgin Secondary School (WESS) and the West Elgin Community Health Centre (WECHC) regarding the Wellness Centre at WESS. This project builds on an earlier international comparative study initiated in 2005 on health promotion in rural schools in Canada and Wales (Varpalotai & Thomas, 2007). The 'Wellness Centre' at the school was established in partnership with the Community Health Centre in 2001, to facilitate greater access for students to health services within this predominantly rural community.

Objectives: The two principal foci to this case study include an in-depth evaluation of the Wellness Centre, and the identification of a healthy schools model as an exemplar of good practice for other schools within the local district and province.

Underlying values and principles: This study highlights the importance of partnerships between education and health providers and stakeholders thus ensuring that students and the youth in rural communities have access and opportunities to a broad range of health and wellbeing support.

Knowledge base/ Evidence base: The outcomes of this study provide insight into the successes of the school and community partnerships as well as identify gaps in the services available to the students and staff. The results provide an evidence base to other stakeholders who wish to emulate this model of a holistic, health promoting school in their communities.

Context of intervention/project/work: Grades 9-12 students, their parents / guardians, teachers and healthcare practitioners were asked to assess the quality of health services offered through their school's Wellness Centre.

Methods: The questionnaire-based survey was administered to all of the stakeholders: students, teachers, parents, health care professionals, followed by some follow-up individual and focus group interviews with representative educators and health care practitioners.

Results and Conclusions: The existing provision provides a unique model of a healthy school approach for other schools in the local District School Board, and elsewhere, both nationally and internationally. Its uniqueness is due to the accessibility to health services, support and guidance within a school setting working in partnership with the Community Health Centre. As key features of this healthy school partnership model, there is the need to highlight the importance of clear lines of communication between all stakeholders; the importance of maintaining regular health-related in-service training to all staff and parents and the need to set up a training network within and outside schools; and for health-related and leisure activities to encourage the wellbeing of staff.

References: Varpalotai, A. and Thomas, M. (2007) The perceptions of stakeholders in Canada and Wales on health education in rural communities: a comparative study, *Education in Rural Australia*, 17, (1), 59-69.

Disclosure of Interest: None declared

GP-WED-125 EFFECTIVENESS OF THE SMOKING PREVENTION PROGRAM IN KINDERGARTENS

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Background: The basic behavior patterns, which influence risk-taking behaviour, are imprinted in early childhood. Hence the Hungarian National Institute for Health Development elaborated a kindergarten smoking prevention program. Now it is running in about 1600 kindergartens. The program informs children and kindergarten teachers on smoking and influences their attitude towards smoking. Parents are also involved.

Objectives: To evaluate the effectiveness of the Smoking Prevention Program in Kindergartens in a sample of 5-7-year-old children.

Underlying values and principles: To ensure effective methods for smoking prevention programs by using playful tools in the kindergartens.

Knowledge base/ Evidence base: This impact assessment underlines the effectiveness of the methods of this smoking prevention program.

Context of intervention/project/work: The impact assessment of the program was realized as part of the Biennial Collaborative Agreement between the Ministry of Health of Hungary and the WHO European Regional Office.

Methods: In this case-control study the total sample size was n=287. The interview with the children of the experimental group was conducted three times: before the introduction of the program, right after the program and 3 months after the program. Similarly, in the control group, the second interview was two weeks, and the third interview was 3 months after the first one. Parents of the children and the kindergarten teachers were asked to complete a questionnaire. In the course of data processing we used chi-square test.

Results and Conclusions: Attitudinal changes: children showed increased sensitivity and refusal to smoking equipments after the program. Behavioural skills: as for behavioural skills, ability to reduce passive smoking in a theoretical, general situation improved after the program. However, the ability to reduce passive smoking in their own lives has not changed. Knowledge about smoking: Results show that in all the measured areas children's knowledge increased after the program and they managed to understand the message of the program's "cherry" symbol. Kindergarten teachers were satisfied with most parts of the program. Parents had a good opinion about the program and they remembered the symbol of the program. Some parents reported that as a result of the program, they smoked less and not in the presence of their children. In a few cases, the family members of the children quit smoking after the program.

Results of the evaluation show that the program is effective in reaching long-term changes in the attitude towards and knowledge about smoking and in the reduction of passive smoking hazard. The program can be realized with the same results in all different regions of the country. There should be placed greater emphasis on the behavioral aims of the program.

Disclosure of Interest: None declared.

GP-WED-126 TO WHAT EXTEND INVOLVING FAMILIES IN A SCHOOL BASED HEALTHY EATING INTERVENTION PROGRAMME WOULD INFLUENCE THE CHILDREN FOOD CHOICES AT HOME?

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Background: Childhood obesity is on the rise and the UK health strategy recommends using schools as a vehicle to change food culture amongst young people. It is well documented that engaging people from low income groups, particularly in inner cities and deprived areas is difficult. The lack of literature on this subject in itself indicates a need for more research in this area.

Objectives: This paper presents the process, design and results of an innovative school based nutrition intervention project, in a deprived area of Sandwell involving children and their parents/ carers with a view to influence food choices and engaging parents alongside their children.

Underlying values and principles: It is well documented that engaging people from low income groups, particularly in inner cities and deprived areas is difficult. The lack of literature on this subject in itself indicates a need for more research in this area.

Knowledge base/ Evidence base: The lack of literature on this subject in itself indicates a need for more research in this area.

Context of intervention/project/work: A range of food based activities was carried out for half a day over one school term in a Primary school class of 30 pupils aged 8-9 years; this was supplemented with home based activities for half of these children involving their parents.

Methods: A quasi experimental study design was employed and data were collected in the beginning, mid and end point of the project using the following mixed methods; 24 hour snacking frequency questionnaire, fruit & vegetable diary, focus group interviews with parents and children. In addition using a structured open ended questionnaire, data also collected weekly from teachers to find out their views about the process of class room food based activities, and was complemented by the use of a reflective diary throughout the project.

Qualitative data from Focus group interviews were recorded and transcribed, and then analysed using Krueger's framework (2000), and Rabiee's guidelines (2004). Quantitative data entered into the SPSS package, and analysed using both descriptive and inferential data analysis with a view to assess any changes in the pattern of consumption pre, during and post intervention.

Results and Conclusions: The findings suggest those parents engaged with the intervention have been able to make the following changes within their own family; eating together and preparing one meal for all of the family and changing their shopping habits to include more fruit and vegetables and less high fat sugary foods. The results from food diary and snacking frequency data indicate both the intervention and non intervention group increased their intake of fruit and vegetables. The lack of any significant difference observed between the two groups is probably attributed to the raised profile of fruit and vegetables during the intervention period in school. The intake of sugary food increased in the non intervention group.

In conclusion involving parents had a positive impact in changing attitudes and behaviour towards food choices. Its long term sustainability on food behaviour however, needs to be evaluated further. The project identified a number of challenges facing school based intervention programme and proposed a model to overcome that.

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Disclosure of Interest: None declared.

GP-WED-211 CRITICAL STRATEGIES TO PROMOTE HEALTH AMONG MARGINALIZED AND DIVERSE POPULATIONS

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General description: Before 1970, Canada's newcomers were mostly from Europe. Today most immigrants and refugees arrive to Canada from Asia, Africa, the Middle East, and South and Central America. Over 90% of them have chosen to settle in Canada's large urban centres. While Toronto makes up 8% of Canada's population, between 2001 and 2006, it has received 40% of Canada's newcomers. As such, over half of the 2.5 million residents in Toronto were born outside of Canada. At the same time, changes in Canada's demographic patterns have coincided with changes in public policy under the influence of neoliberalism. Today, newcomers, ethnoracial and other social minorities in Canada are faced with increased challenges in accessing adequate income, employment, education, housing, health care, and other social determinants of health. Inclusive health promotion (HP) strategies are critical in mitigating these challenges at the individual, organizational, community and societal levels.

This symposium showcases four innovative and sustainable HP initiatives that address specific health needs in 4 distinct subpopulations: immigrant parents and family sex education; immigrant/refugee women and mental health; ethnoracial minority people living with HIV/AIDS (PHAs) and health literacy; and people living with HIV/AIDS and leadership for change. While these initiatives work with different target populations to address different health issues, they are all underpinned by the principles of social justice, access and equity and use advocacy, collective empowerment and capacity building as key health promotion strategies. Although the 4 initiatives are located in Toronto (Canada), the knowledge and innovative strategies they have generated are relevant to HP practices in other countries that also have significant newcomer and diverse ethnoracial subpopulations.

Objective(s): At the end of the symposium, participants will be able to: 1) describe the use of critical community-based research to guide HP practices; 2) apply capacity building and collective empowerment principles to develop sustainable HP initiatives when working with marginalized and culturally diverse communities; and 3) form collaborations and partnerships to develop innovative health promotion projects.

GP-WED-212 AN EVALUATIVE CASE STUDY OF A PEER PARENT LEADERSHIP PROGRAM ON FAMILY SEX EDUCATION IN THREE IMMIGRANT COMMUNITIES IN TORONTO, CANADA

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Background: The Raising Sexually Healthy Children (RSHC) Project is a collaborative effort between Toronto Public Health and local ethno-cultural communities. The program was first piloted in two communities, and after ten years, has been adopted in 10 communities in Toronto. It aims to enhance parent-child communication and family sex education parent skill development.

Objectives: This evaluation case study examines the processes and outcomes of the RSHC program in the Chinese, Tamil and Portuguese communities to improve, inform, and further develop the program.

Underlying values and principles: This study recognizes access to health literacy as a social determinant of health, and community participation as an important health promotion strategy among cultural and linguistic minority communities.

Knowledge base/ Evidence base: This study draws on 'empowerment' and 'capacity building' as a guiding framework. Studies in health promotion have illustrated the dynamic interactions between the health of individuals/groups and their environments. Opportunities to participate meaningfully in a supportive environment enable individuals and communities to gain control of the social determinants of their health.

Context of intervention/project/work: The need to provide culturally and linguistically appropriate sexual health education to immigrant parents is crucial given that the City of Toronto receives the largest number of immigrants in Canada. Immigrant parents face cultural and structural barriers to social integration, and thus may often experience feelings of incompetence as they struggle to apply previously acquired parenting skills within the context of a new society.

Methods: Using both qualitative and quantitative data, this multiple case study will compare the RSHC programs delivered in the Portuguese, Chinese, and Tamil communities in Toronto. Data collection includes: 1) document analysis (archival records of in-house evaluations of workshops over the last 10 years); 2) in-depth individual interviews with key informants and peer parent leaders in each community (n=12); and 3) focus groups with community members who participated in an outreach workshop conducted by peer parent leaders in each community (n=18). The study uses 'within-case' and 'across-case' analysis to identify similar and different patterns of process and outcomes in the three communities.

Results and Conclusions: This paper reports on: 1) the outcomes of the RSHC program; 2) factors that contribute to program sustainability, and 3) the extent of transferability of the RSHC program among different cultural communities. Study results contribute to the development of effective health promotion strategies among culturally marginalized parents and the development of socially inclusive sex education for children.

Disclosure of Interest: None declared

GP-WED-213 PEER LEADERSHIP AND EMPOWERMENT AS AN INCLUSIVE APPROACH TO PROMOTE MENTAL HEALTH AMONG IMMIGRANT AND REFUGEE WOMEN

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Background: Studies in Canada and the US suggest that newly arrived immigrants appear to have better mental health than their native born counterparts. However, this mental health advantage is less evident among immigrant women and tends to erode over time. Indeed, immigrant women who experience social exclusion, economic hardship, and gendered inequity tend to have worse mental health. In 2001, Hong Fook Mental Health Association, a community mental health agency in Toronto, received a two-year funding to carry out a demonstration project to promote mental health among E & SE Asian immigrant and refugee women. This paper reports on the 10-year development, transformation and sustainability of Hong Fook's peer leadership and empowerment approach in mental health promotion.

Objectives: This project aimed to promote mental health and reduce stigma associated with mental illness through community dialogue and education in the E & SE Asian communities in Toronto.

Underlying values and principles: This project uses a critical feminist approach that is informed by the principles of social justice, equity and anti-oppression.

Knowledge base/ Evidence base: This project represents the action component of a research project conducted with women in the target communities. Findings on the women's perception of mental health, migration-settlement experiences, and strategies of resiliency were used to develop a peer leadership outreach and education model.

Context of intervention/project/work: Using collective empowerment and capacity building as key health promotion strategies, this project hired ten women from the target communities; half of them were newcomers experiencing language and employment barriers; the other half were second-generation Canadians with a strong desire to connect to their cultural roots.

Methods: Project and agency staff underwent an intensive train-the-trainer program which emphasized the social determinants of mental health. Upon completion, project staff recruited and trained women from their respective communities to take part in peer outreach and health promotion activities.

Results and Conclusions: A total of 114 women from the six target communities took part in the pilot phase; over a period of 12 months, they facilitated 79 health promotion activities and reached over 5000 women. Additional unplanned outcomes included: participation of women leaders in community activism and political action; formation of mutual support groups; shared leadership that led to other identified needs and follow-up actions; and critical organizational change. Since 2003, Hong Fook has adopted collective empowerment and peer leadership as the agency's approach to promote mental health. This approach has also been integrated into the family support and self-help initiatives. Furthermore, Hong Fook has developed a diversity and equity policy to guide its organizational practice. The outcomes of this project suggest that meaningful community participation is critical to collective empowerment; and a strength-based capacity building approach can contribute to program sustainability.

Disclosure of Interest: None declared

GP-WED-214 THE LEGACY PROJECT: PROVIDING STRUCTURED MENTORSHIP SUPPORT TO PROMOTE MEANINGFUL PARTICIPATION OF PHAS.

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Background: People living with HIV/AIDS (PHAs) have been at the forefront of local and global HIV/AIDS movements since the beginning of the epidemic. In Ontario, the populations affected by HIV/AIDS have become increasingly diverse and their needs are increasingly complex. Various agencies and networks have developed innovative initiatives to promote the greater involvement and leadership of PHAs to address the social determinants of their health. However, there are significant gaps in comprehensive planning and coordination among these initiatives, resulting in loss of opportunities in collective empowerment and ineffective use of scarce resources.

Objectives: This project aims to provide structured mentorship support to PHAs who have graduated from various community capacity building programs to apply their knowledge and skills in the areas of HIV prevention, peer support, civic participation and career development. It also aims to create new partnerships to improve the quality, access and cultural competencies of services provided to all Ontarians.

Underlying values and principles: Underpinned by the Meaningful and Equitable Involvement of People Living with HIV/AIDS (MEIPA), this project promotes cross-generational, cross-cultural and cross-sectoral collaboration amongst PHAs and other allies to expand PHA participation beyond the HIV/AIDS sectors in both paid positions and as volunteers.

Knowledge base/ Evidence base: Studies conducted by the Toronto Community Planning Initiative Education & Training Working Group, the Committee for Accessible AIDS Treatment and the Ontario HIV Treatment Network, all identified the need to have enhanced planning and coordination on PHA capacity building and training initiatives.

Context of intervention/project/work: Inequitable distribution of power and resources within the health and HIV sectors often drives community-based agencies to compete with each other rather than to collaborate. This innovative project demonstrates the possibilities of working together against systemic inequity to strengthen the HIV communities.

Methods: Peer mentors, mentees and agency partners are recruited from diverse communities to form a learning community. A mentorship training module is developed based on results of the community needs assessment and consultation. Agencies from various sectors are engaged to provide practicum opportunities for PHAs to consolidate their skills through experiential learning and to develop their career plans.

Results and Conclusions: This paper reports on the results of the Legacy Project, including: 1) the design and operational model of the structured mentorship program; 2) the facilitators and barriers in recruiting mentors, mentees and participating agencies; 3) the effectiveness of the mentorship training module; 4) the formative and summative evaluation of the project.

Disclosure of Interest: None declared

GP-WED-215 LEARNING AND HELPING OUT: PEER TREATMENT AND SUPPORT COUNSELING TRAINING AMONG ETHNORACIAL PEOPLE LIVING WITH HIV/AIDS

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Background: Ethnoracial people living with HIV/AIDS (PHAs) experience health disparity associated with linguistic and cultural barriers in accessing HIV treatment information. In 2003, five ethnoracial AIDS service organizations collaborated to assess the HIV treatment literacy needs of PHAs in the African, Caribbean, East/Southeast Asians, South Asians and Latino communities in Toronto. In response to the survey results, the “Learning And Help Out” peer training was developed and piloted for two year. In 2005, the Ethnoracial Treatment Support Network (ETSN) was formed to meet the ongoing support needs of PHAs capacity building.

Objectives: The objectives of the ETSN initiatives are to enable ethnoracial PHAs to: 1) make informed choices about their HIV management plan; 2) develop HIV treatment and health literacy; 3) build peer support and capacity; and 3) work with service providers to enhance professional accountability and client-centre HIV care.

Underlying values and principles: This project recognizes social equity, peer support, and health/HIV treatment literacy as critical pathways for marginalized ethnoracial PHAs to gain control over their health.

Knowledge base/ Evidence base: The ETSN Learning And Helping Out Training was developed based on the results a community needs assessment and the application of health promotion and empowerment concepts.

Context of intervention/project/work: Information on HIV treatment, mostly written in biomedical terms, is inaccessible to lay PHAs, especially ethnoracial PHAs who are not fluent in Canada's official languages of English and French. ETSN was established as a partnership initiative involving five local ethnoracial AIDS service organizations, a provincial AIDS bereavement project and a national treatment information agency in Canada to facilitate access to linguistically and culturally inclusive HIV treatment literacy.

Methods: Using a multi-disciplinary capacity building approach, PHAs from the target ethnoracial communities were recruited to take part in an extensive peer counseling training program, which consisted of 7 full-day training and a weekend retreat. Training topics include: social determinants of health, leadership skills, effective facilitation, peer support counseling, HIV treatment literacy, advocacy and political action.

Results and Conclusions: A total of 83 peer counselors from diverse ethnoracial communities graduated from five rounds of ETSN Learning and Helping Out Peer Training between 2003 and 2008. Over half of the graduates have taken on leadership roles in promoting HIV treatment literacy and peer support within their respective communities. This paper reports on the successes and challenges of the ETSN initiatives in building capacity among marginalized PHAs, including: 1) safe learning space and empowerment; 2) cross-cultural partnership and community solidarity; 3) access to peer counseling practice opportunities; and 4) recognition and integration of ETSN training into the ‘mainstream’ HIV/AIDS sector.

Disclosure of Interest: None declared

GP-WED-216 METHODOLOGICAL PROBLEMS WITH EXPENDITURE-BASED POVERTY AND EQUITY ANALYSES

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Background: Expenditure-based approaches in studies of poverty and equity in health are plagued with conceptual difficulties. Yet for many countries, income data remain scarce or unreliable and expenditure-based approaches are common in the study of wellbeing, inequality and poverty.

Objectives: We outline the conceptual problems inherent in using expenditures as a measure of wellbeing in studies of poverty and inequality. We also propose a corrective measure in expenditure-based methods in order to address the bias and we calibrate the effectiveness of our alternative approach in the case of Jordan.

Underlying values and principles: We take expenditures on health to be a biasing factor for expenditure-based analyses of poverty and equity: because the consumption of health services doesn't necessarily share the characteristic of being an indication of wellbeing, common to the consumption of other goods and services, expenditures on health may end up pushing households above the expenditures-based poverty line when in fact their consumption of health services is both impoverishing and an indication of a lower level of wellbeing.

Knowledge base/ Evidence base: For illustrative purposes, we attempt to illustrate the magnitude of the bias by comparing expenditure-based poverty analysis with income-based poverty analysis in the case of Jordan. We thus propose to measure the extent of this bias in the context of the Health and Expenditure Survey conducted in Jordan in 2002/2003.

Context of intervention/project/work: Because expenditures-based approaches to poverty and equity analyses are common in the public policy arena, both at the governmental and multilateral levels, it is of policy relevance to re-examine the methodology behind expenditures-based approaches, to illustrate their bias when it comes to expenditures on health and to propose a corrective measure.

Methods: We identified a context where data on income, consumption expenditures, and expenditures on health are available in order to compare poverty measures based on income and those based on expenditures, to identify the misleading effect of expenditures on health, and to quantify the ability of our proposed remedial measures to reduce the bias.

Results and Conclusions: While the extent of the bias may not translate across countries, the case study of Jordan is intended to be illustrative of the degree to which expenditures may obscure poverty and inequity, particularly when it comes to expenditures on health, and to be a first assessment of the remedial measures that we propose.

Disclosure of Interest: None declared.

GP-WED-340 HOW POTENT ARE FATALISM, POVERTY AND PERSONALITY FACTORS IN NONCHALANT SEXUAL BEHAVIOURS IN HIV/AIDS PANDEMIC IN SUB-SAHARAN AFRICA?

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Background: The scourge, persistence, treatment and control of HIV/AIDS following the diagnosis, is one of the biggest health challenges regularly discussed both in sub-saharan Africa and at global fora. Though people have been getting more enlightened and informed about the cause, spread and the consequences of HIV/AIDS on individuals and family, sexual behavioural patterns in dating/courtship as well as coitus relationship have not waned, but rather, indifferent or nonchalant attitudes are now prevalent

Objectives: The study examined the impact of fatalism on HIV/AIDS prevention and why the pandemic has resisted known suggestions at curtailing its spread.

Underlying values and principles: Human beliefs die hard. Fatalism, although, it is a metaphysical construct, is a belief that sustains the notion that nothing changes what has been predetermined. It strongly maintains the idea that 'what will be will be' and without doubt, its preponderance effect on personal life styles has been very devastating especially as it relates to HIV/AIDS.

Knowledge base/ Evidence base: In a study that implicated fatalism in individual perceived hopelessness, self-efficacy to effect change, future goals and socio-demographics as possible determinants of a fatalistic view about protecting one's self from HIV/AIDS, Meyer-Weitz (2005) found that about 30% of the South African adult population aged 18 and over indicated such a fatalistic view.

Context of intervention/project/work: The setting of the study was Lesotho. The participants were drawn from four Provinces. The Population of Lesotho is 1.95 million people. Lesotho has one of the highest HIV/AIDS prevalence rate (the percent of people living with the disease) in the World, a much higher rate than the sub-Saharan African region overall 28.9% compared to 7.5% (Kaiser Family Foundation, 2005).

Methods: Simple random sampling technique was used to pick 574 participants (i.e. Males=307 or 53.5%, and Females 267 or 46.5%). The quantitative and qualitative techniques patterned in the ex-post-facto method were beneficially used to establish causality of factors.

Results and Conclusions: Using ANOVAR at 0.05 alpha as the main statistical method, the findings indicated that 87.63% of the participants believed that HIV/AIDS pandemic is not strictly the consequence of the commercial sex workers' activities and their patrons; but a social issue that cuts across all boundaries. It further show that fatalistic factors directly influence the pandemic nature of HIV/AIDS ($P < 0.05$).

References: Kaiser Family Foundation: HIV/AIDS Policy Fact Sheet on the HIV/AIDS Epidemic in Lesotho, 2005. Retrieved October 9, 2007 from www.kff.org/hivaids/upload/7357.pdf
Meyer-Weitz, A. (2005). Understanding fatalism in HIV/AIDS protection: the individual in dialogue with contextual factors. African Journal of AIDS Research, vol. 4 (2): 75-82

Disclosure of Interest: None declared

GP-WED-341 THE USE OF SOCIAL NETWORK ANALYSIS TO QUANTIFY THE IMPORTANCE OF SEX PARTNER MEETING VENUES IN AN INFECTIOUS SYPHILIS OUTBREAK IN CALGARY, CANADA: A PILOT STUDY

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Background: Despite public health efforts to control rates, Alberta, like many health jurisdictions in Canada, is faced with a concerning resurgence of syphilis. Attaining syphilis elimination will call for health regions to implement innovative approaches to enhance efforts for case finding.

Objectives: The primary objective of this pilot study was to explore the use of social network analysis (SNA) as an epidemiological tool to determine the relative importance of sex partner meeting venues to the transmission of syphilis, in a sustained infectious syphilis outbreak.

Underlying values and principles: The escalating incidence, considerable associated morbidity and risk of HIV transmission necessitate the control of syphilis as an important public health goal.

Knowledge base/ Evidence base: SNA is an emerging field for studying epidemic transmission of infectious disease. Places where people meet sex partners may play an important role in the proliferation of sexually transmitted infections. SNA has the potential to quantify the role places of social aggregation play in syphilis transmission based on a relational approach.

Context of intervention/project/work: In a network survey study, we identified and enrolled 25 cases and named contacts of infectious syphilis among men who have sex with men (MSM), aged 18-54 years at the Calgary Sexually Transmitted Disease clinic in Alberta, Canada, during routine public health measures of infectious disease control between April – August, 2009.

Methods: In addition to standard contact tracing information, participants were asked to list all venues attended in the last six months where sexual partnering may have occurred. We constructed a sexual affiliation network (1) by linking together persons infected with syphilis, and their named sexual contacts, to sex partner meeting venues. By transposing the sexual affiliation matrix and applying matrix multiplication we created two separate networks; a network of men connected by venues and a dual network of venues connected by men. Hierarchical clustering was performed to model patterns of individual patronage of venues, and network algebraic measures of degree centrality and permutation statistical methods were used to determine what type of venue connected the most individuals infected with syphilis.

Results and Conclusions: 80 % of MSM, reported meeting a sex partner at a social venue in the last six months. We identified a densely connected sexual affiliation network of 94 men, comprised of 18 cases of infectious syphilis and 76 named sexual contacts connected by 21 venues. In the network of sex partner meeting venues, Internet venues had higher degree centrality than non-internet venues ($p < 0.05$). In the network of men connected by venues, hierarchical clustering detected a cluster of 35 men linked together by their patronage of three Internet venues. These three Internet venues had the highest degree centrality in the network of sex partner meeting venues and connected two thirds of all infectious syphilis cases. To our knowledge, this is the first study to use SNA of a sexual affiliation network to quantify the importance of places in an outbreak of infectious syphilis. Network analysis allowed identification of three key venues that connected individuals who were infected with syphilis. These venues could provide public health officials with an epidemiologic target for primary and secondary prevention strategies to prevent further dissemination of disease.

References: Frost, SDW. Using sexual affiliation networks to describe the sexual structure of a population. *Sex transmiss infect* 2007; 83 (Suppl 1): i37-i42.

Disclosure of Interest: None declared

GP-WED-342 SHOWING IT LIKE IT IS: EFFECTIVE CONDOM REINFORCEMENT

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Background: HIV notifications in the state of Victoria had been steadily increasing since 1999, with a 42% increase noted in 2004. The Department of Health in Victoria commissioned the Victorian AIDS Council / Gay Men's Health Centre to implement a condom reinforcement social marketing campaign targeting homosexually active men in 2007.

Objectives: The principle objective of the campaign was to increase condom use in homosexually active men and to decrease the amount of unprotected anal intercourse taking place among homosexually active men.

Underlying values and principles: The underlying value of the initiative was a respect and a recognition of the ways in which homosexually active men express their sexuality, without judgement or censure.

Knowledge base/ Evidence base: Unprotected anal intercourse remains the principal mode of transmission of HIV in Victoria accounting for 78.7 percent of diagnoses . Whilst a percentage of these transmissions occur in primary relationships (1,2) , a significant proportion (57.5%) are the result of unprotected anal intercourse in casual settings (UAIC). In Victoria, since 1998 the proportion of gay men having at least one episode of UAIC in the past 6 months had been steadily increasing from a base of 15.0 percent in 1998 to 19.4 in 2007 (3) . Further, in 2006, of those men who reported sex with casual partners 30 percent reported UAIC (4,5).

Context of intervention/project/work: A detailed background profile (5) (supplied by Garrett Prestage from the National Centre in HIV Epidemiology and Clinical Research, 1.) of men who engage in casual unprotected anal sex presented the campaign with a number of challenges: 1.The men described in the profile appeared to be well informed about sexual health, being more likely to have had regular and recent sexual health checks, to know about post exposure prophylaxis and to have recognized previous campaign material. 2.They had quite high levels of regular recreational drug use.3.Their proximity to the epidemic would appear to be close, with individuals more likely to know several people who are HIV positive and more likely to know several people who had recently seroconverted. 4.They were likely to be more sexually adventurous, participating in sex parties, engaging in group sex and attending sex on premises venues.

Methods: We employed highly explicit imagery donated by safe sex gay porn producers to reinforce the notion that highly charged, erotic sex was possible, and desireable using condoms and water based lube to protect individuals from transmitting or acquiring HIV and other sexually transmitted diseases.

The campaign was implemented with full page advertisements in the gay press, community events, radio ads and a website.

Results and Conclusions: An external evaluation of the campaign concluded that: 1. the campaign had in excess of 70 percent recognition and, among those people who recognized the campaign, 2. an impressive 90 percent could recall at least one campaign message and 3. over 50 percent had become more conscious of using condoms and lube when having sex. Whilst it is too early to determine if the campaign will have a sustained impact on the epidemic of HIV in Victoria, our results demonstrate that highly sexually explicit materials can aid in safe sex education amongst homosexually active men if their use is judiciously targeted and supported with community activity.

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Disclosure of Interest: None declared

GP-WED-343 DETERMINANTS OF CONDOM USE AMONG GREEK HIGH SCHOOL STUDENTS

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Background: Consistent contraception use is an important parameter of sexual and reproductive health.

Objectives: The purpose of this study was to examine the factors that affect condom use among high school students in the city of Athens, Greece.

Underlying values and principles: In modern western societies sexual activity begins in adolescence.

Abstinence based programs that aimed to postpone the first sexual intercourse have met little success. It is thus important to accept the fact that teens are sexual active and make sure they protect themselves from an unintended pregnancy and sexually transmitted diseases.

Knowledge base/ Evidence base: According to previous research, consistent use of contraception is related to many factors, such as sex, age at first coitus, school performance as well as peer and parental influences.

Context of intervention/project/work: Knowledge of adolescents' contraceptive behavior will permit the design of an educational program that promotes healthy habits that addresses the needs of the youth.

Methods: Data collection took place between October 2008 and May 2009. A questionnaire was administered to 1852 students of 12 randomly selected schools and 639 (34.5%) pupils answered it.

Results and Conclusions: Most participants were female (57.7%) and their mean age was 17.8 years. Half of the students were sexually active and 83% of them used a condom at their first sexual intercourse, but only half of them were consistently using condoms. The use of condom at the first sexual intercourse was strongly related to consistent condom use as well as use at the last intercourse. Logistic regression analysis showed that students who used a condom at their first intercourse were more likely to have a sexual partner close to their age, especially for females, as well as friends who used contraception and also approved their contraceptive behavior. In bivariate analysis, parent – adolescent discussions about sexually transmitted diseases were only weakly related to condom use at first intercourse. Consistent condom use was more prevalent among boys, students with more positive attitudes towards contraception and a partner close to their age. Peer attitudes and behavior were also correlated to continual condom use.

Adolescents who use contraception at their first intercourse tend to do so in their subsequent sexual life, hence it is important to address their needs before they become sexually active. Since peers play a significant role in adolescents contraceptive behavior, they should be involved in sexual education programs, that should aim in forming positive attitudes towards contraception and empowering teens, especially girls, so as to demand the use of a condom, even with an older partner.

Disclosure of Interest: none declared

GP-WED-346 STDS AND SIDA IN TEENAGERS: EDUCATING AND HEALTH PROMOTING

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Background: Poverty and lack of opportunities leads many boys and girls into prostitution.

Objectives: This concern led us to develop this work in order to discuss the main STDs and AIDS that affect large parts of the Brazilian population, and propose changes in the educational intentions in a offenders house with a view to improving the quality of life of adolescents watched there.

Underlying values and principles: The feeling of shame or guilt that sometimes manifests itself in infected individuals, preventing them from seeking proper medical treatment and prejudice using condoms due to lack of awareness or belief in outdated cultural values, has contributed to the spread of Sexually Transmitted Diseases (STDs) and Acquired Immuno Deficiency Syndrome (AIDS).

Knowledge base/ Evidence base: For this reason, health can't be considered as an isolated phenomenon but a result of the interaction of all the condition in which the population lives.

Context of intervention/project/work: Therefore it is essential to improving the living conditions of the poor, bringing the improvement of their health conditions, as is everyone's job to engage in the process of awareness of health problems such as STDs/AIDS.

Methods: This research is qualitative approach is related to the planning and evaluation of educational activities in health, according to the Parameters Technical Education in Brazil and was developed through the use of instruments such as interviews, statements, speeches and lectures. The research focused on educational interventions to prevent STDs and AIDS in teenagers and investigates issues such as gender and sexuality. We seek to clarify what is STDs/AIDS, how it is transmitted and how to protect especially those diseases through prevention. The subjects were adolescents who are in home care to children in the municipality of Fortaleza, voluntarily engaged in educational workshops to be developed. The reason for emphasizing the teenagers gave up because we believe that their sexual development is essential for the formation of self-awareness of critical thinking by encouraging them to think for themselves and make their choices. The analysis of the results was performed using the themes that emerged from statements from participants.

Results and Conclusions: The results showed that before attending the educational workshop, students were unaware of the seriousness of the AIDS virus, the necessary precautions for the prevention of STDs and not related to AIDS with sexuality. We realize that this experience helped enhance interpersonal relationships and the socialization of learning and we feel it necessary to carry out health education aimed at teenagers as well as an appropriate orientation to discuss the issue of STDs and AIDS. It concludes with the study that is of fundamental importance to carry out educational activities with teenagers so that they can empower themselves in the process of promoting their health.

Disclosure of Interest: "None declared"

GP-WED-347 PROMOTING SEXUAL AND REPRODUCTIVE HEALTH, FAMILY PLANNING, HIV, AIDS AND STI PREVENTION FOR YOUTH

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Background: Kosovo has the youngest population in Europe: Over half of its people are under the age of 25, and according to official data about 69% percent of population of Kosovo is between the age of 15 and 29. Therefore, the challenges related to political, economic and social development during the ongoing transition period are first and foremost the challenges of young people, who are Kosovo's future workers, parents, citizens and leaders. In Kosovo, where health care services are poor, both in terms of knowledge and equipment, young people have limited access to good sexual and reproductive health services and education.

Objectives: To improve sexual and reproductive health of Kosovo citizens, by means training of peer-education.

Underlying values and principles: To have strengthened quality and relevance of sexual and reproductive health education and HIV/AIDS prevention efforts through delivery of standardized and high quality peer education.

Knowledge base/ Evidence base: Inclusion criteria were from differential secondary school children.

Context of intervention/project/work: Increasing of youth awareness regarding prevention measures for sexual and reproductive health education and HIV/AIDS and STI's.

Methods: Activities were implemented through training with peer education on sexual reproductive health including HIV/AIDS and family planning, prevention methods, risky and safe behaviors, sharing knowledge with their peers, friends, and relatives in their communities.

Results and Conclusions: Some of the crucial achievements of KOPF Youth Peer Educators Network in Kosovo are: Training of trainers which resulted in 300 new peer education trainers; over 200 school-based workshops around Kosovo; over 700 peer educators are actively working for the Network, a webpage running with over 30,000 visitors per year. In overall more than 50,000 youngsters are reached from 2002-2009. Concerning of sustainability of the information through peer education training should be provided mechanisms for continuity in all schools in Kosova.

Disclosure of Interest: none declared