

**Studente Akademiese Jaardag
Annual Student Academic Day**

Tygerberg Academic Affairs Council
TABR
Tygerberg Akademiese Belange Raad



**Lecture Hall 5
13:00 – 16:00
14 August 2012**

Group 1

ASSESSING THE IMPLEMENTATION OF THE NEW ROAD TO HEALTH BOOKLET IN PUBLIC HEALTH CARE FACILITIES IN THE WESTERN CAPE PROVINCE - WITH A SPECIFIC FOCUS ON THE HUMAN IMMUNODEFICIENCY VIRUS AND TUBERCULOSIS COMPONENTS

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This study assessed the implementation of the Road to Health Booklet (RtHB) in selected public health care facilities in the Western Cape Province, with a specific focus on the Human Immunodeficiency Virus (HIV) and Tuberculosis (TB) components of the booklet.

A cross-sectional study design was used on a representative sample of primary health care (PHC) facilities in urban and rural areas of two regions (Cape Metropole and Winelands) in the Western Cape. Data was obtained over a 5-week period starting in January 2012, by means of an observational checklist, a self-administered questionnaire for the nurses, as well as a researcher-administered questionnaire for the primary care givers (PCGs).

In total, 1034 children aged 0-12 months and their PCGs were included, while a total of 145 nursing staff participated in the study.

Nurses reported that protocols regarding HIV were available in 91.7% (n=133) of facilities - with HIV (65.4%; n=91) and TB (94%; n=135) drugs generally reported as always being available. In the Prevention of Mother to Child Transmission (PMTCT) section of the RtHB, only 54.8% (n=79) of nurses reported that they often completed the section, with 1 in 5 nurses indicating the reason for not completing this section was that it was "sensitive information". Seventy-nine percent (n=114) of nurses indicated that they completed the TB section of the booklet, however only 53% (n=51) correctly recorded it in the well child section of the RtHB. The vast majority (87.43%; n=898) of PCG's were comfortable with information on HIV and TB being recorded in the RtHB. Despite this, (50%; n=493) of the mothers' HIV test results were not recorded in the booklet. In total there were only (6%; n=62) children who were considered to be "HIV exposed". Of these children, (67.7%; n=42) received nevirapine since birth. At the 10-week visit, no children were reported as having a positive PCR test, yet 8 children were recorded as receiving nevirapine.

Information obtained indicates that the HIV and TB sections of the RtHB are poorly completed, and that the implementation of this component of the RtHB is inadequate.

Group 2

THE ASSESSMENT OF THE IMPLEMENTATION OF VITAMIN A AND DEWORMING PROTOCOLS OF THE ROAD TO HEALTH BOOKLET, IN PRIMARY HEALTH CARE FACILITIES WITHIN THE WESTERN CAPE.

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Abstract

Background: The Road to Health booklet (RtHB) is the Department of Health's strategy to promote optimal child health in South Africa. This booklet includes sections on routine Vitamin A supplementation (VAS) and deworming. The correct implementation of the RtHB is critical for optimal child health.

Objectives: To assess the implementation of Vitamin A and deworming protocols in the RtHB, of Primary Health Care (PHC) facilities within the Western Cape.

Design: A cross-sectional study with an analytical component was performed.

Setting and Subjects: 71 PHC facilities in the Cape Metropole (45 clinics, four sub-districts) and Winelands (26 clinics, 10 sub-districts) regions of the Western Cape Province, 1034 caregivers (CGs) as well as 145 Health care workers (HCW) participated and 1019 child-consultations were observed.

Outcome Measures: Two structured questionnaires, one for HCWs another for CGs, were used. Observational checklists assessed the HCWs' knowledge and practices relating to the implementation of the RtHB.

Results and conclusion: Data was captured and analysed using Microsoft Excel® 2010 and Statistica® Version 10. From the CG questionnaire it was evident that CGs lacked knowledge on iron-rich food sources. Only 17% (n=174) could correctly answer VAS-related questions and 32% (n=332) deworming. The observational checklist indicated that 64.22% (n=648) of the vitamin A sections were complete. The majority (69.94%; n=249) of children were found to be up to date with their VAS. Ninety-eight per cent (n=140) of HCWs knew the correct VAS frequency, approximately 95% knew the correct age-related dosages and 99% (n=142) knew the frequency of deworming treatment.

Group 3

PREVALENCE OF UNDIAGNOSED METABOLIC SYNDROME IN CLOZAPINE USERS OF XHOSA DESCENT, AS WELL AS THE FREQUENCY AND SEVERITY OF OTHER ADVERSE-EFFECTS IN THIS POPULATION GROUP

Background. Clozapine is an atypical antipsychotic drug and has been commercially marketed for more than 20 years. It has been shown that Clozapine has a higher efficacy compared to the typical antipsychotics and is mostly indicated in cases of treatment-resistant schizophrenia. Common side effects associated with Clozapine use are sedation, hypersalivation, tachycardia, constipation and orthostatic hypotension. More severe adverse effects include myocarditis, cardiomyopathy, prolongation of the QT-interval and agranulocytosis. It has long been known that Clozapine is associated with weight gain and more recently it has also been shown that there is an increased risk among Clozapine users for developing the metabolic syndrome. Due to the increased risk of cardiovascular-related death in patients with the metabolic syndrome, this is a serious adverse effect of which the health practitioner prescribing Clozapine should be fully aware of.

Objectives. Since Clozapine is prescribed as chronic medication for schizophrenia patients, it would be important to be aware of the development of side effects – especially those which would lead to an increase of morbidity and mortality. Thus, it would be imperative to know the prevalence of these adverse effects in the population group you are treating. Due to the paucity of data available for African patients, this study was done to establish the prevalence and severity of the adverse effects of Clozapine in Xhosa patients, especially focusing on the metabolic effects, prolongation of QT-interval, decrease in the white-cell count, as well as the common adverse effects.

Methods. 32 Xhosa schizophrenia (DSM-IV) outpatients were selected from a large genetics study done in the Cape Metropole to take part in this study. 29 of the subjects have received Clozapine for at least 1 year and were evaluated for specific adverse effects of the medication. The evaluation included a directed history regarding the presence of side effects, physical examination, appropriate side-room investigations, as well as laboratory testing. The International Diabetes Federation (IDF) criteria were used to determine the presence of the metabolic syndrome.

Results. The prevalence of the metabolic syndrome (IDF) was 44.8% (95% CI: 26.7 - 62.9). The prevalence of undiagnosed Diabetes mellitus was 13.8% (95% CI: 1.24 - 26.34). There was a significant association between the metabolic syndrome and body mass index (BMI) ($p < 0.01$). The mean white blood cell count was $7.8 \times 10^9/l \pm 2.8$, with 3.4% (95% CI: 0 - 10.1) of the subjects having a WCC $< 3.5 \times 10^9/l$. The prevalence of sedation was 82.8% (95% CI: 69.0-96.5), hypersalivation 79.3% (95% CI: 64.6 - 94.1), and constipation 44.8% (95% CI: 26.7 - 62.9). The mean QT-interval was 373.8 (SD = 35.9). The prevalence for corrected QT-interval > 440 ms was greater than 10% using two different correction formulae. There was an association between the duration of Clozapine treatment and QT-interval (with Bazett's correction). The median severity of the Extra-pyramidal Side effects (EPSE), as assessed by the ESRS, was rated as either minimal (1), or absent (0).

Conclusion. The association between BMI and the metabolic syndrome illustrated indicates that BMI can predict the presence of metabolic syndrome in Clozapine users of Xhosa descent. It has been hypothesized that weight gain is the most significant contributing factor for the development of metabolic syndrome and therefore the BMI can be utilized as a screening test for metabolic syndrome in these patients treated with Clozapine.

The findings regarding metabolic syndrome from this study are consistent with those from previous research. These results reiterate the necessity to monitor weight and body mass index in patients receiving Clozapine treatment. The relatively high prevalence of undiagnosed diabetes mellitus in this group, may further point to a need to monitor glucose levels on a regular basis in these patients as well. The high prevalence of the less serious side effects of Clozapine in this group, illustrates the necessity to educate patients regarding the treatment when prescribed in order to maintain compliance.

A study making use of comparative data with randomization, as well as long-term follow-up of the subjects is recommended for future research.

TESTING THE EQUIVALENCE OF THE AFRIKAANS TRANSLATED VERSION OF THE SMITH HAND FUNCTION EVALUATION TO THE ENGLISH VERSION OF THE SMITH HAND FUNCTION EVALUATION

Abstract: This research involved the process of professionally translating the Smith Hand Function Evaluation instructions into Afrikaans and testing its equivalence to the standardized English Smith Hand Function Evaluation instructions. This was done so that the evaluation can be used by occupational therapists in South Africa assessing Afrikaans hand injury patients.

The adapted version of the Cross-Cultural Adaptation Process (forward translation, backward translation, authentication of the translation, expert committee review and test of the pre-final version) was used to translate the Smith Hand Function Evaluation instructions into Afrikaans. The Afrikaans pre-final version was tested to determine whether it was equivalent to the original English instructions. An experimental group of Afrikaans first language participants and a control group with English first language participants were tested on their understanding of the instructions. Each group had 68 participants and the experimental group was tested with the Afrikaans instructions while the control group was tested with the English instructions.

Statistical equivalence of the Afrikaans translation of the instructions to the English instructions was found in all the subtests of the Smith Hand Function Evaluation excluding section B subtests one and five and section C subtest two. Clinical equivalence was not found in section B subtest five and section C subtest two of the Smith hand Function Evaluation. Observations and recommendations were made during this study regarding the clarity of the English instructions, content of the Smith Hand Function Evaluation subtests, materials used and the use of the newly translated Smith Hand Function Evaluation instructions.

ABSTRACT

South Africa has an exceptionally high unemployment rate. It is argued that unemployment causes poverty in addition to occupational deprivation. Income generation projects are strategies to create jobs, however very few of these strategies are sustainable.

This study aimed to identify critical factors that contribute to the sustainability of work creation projects in attempt to ultimately ensure that these factors are present in similar work creation projects, in future, to increase their sustainability rates and combat unemployment. A single case study was conducted to acquire an in depth understanding of the critical factors that contributed to the sustainability of a work creation project in the community of Khayelitsha.

Data was collected during three focus groups over a period of two weeks. Six themes were identified after a categorical analysis was done indicating that motivation, leadership, networking, training, applying business skills and group norms was essential for the sustainability of the project. It was interpreted that motivation was the core factor and the precursor for actions necessary to make the project sustainable.

Primary structures that were present in the group, causing the members to be motivated, were: the developmental task of achieving adult and civic responsibilities, a transformational leader, Maslow's hierarchy of needs that are satisfied, the presence of Herzberg's hygiene factors and true motivators as well as sharing a goal. The motivation they had because of these structures allowed them to make use of secondary structures present their project: networking, training, application of business skills and a fit between work abilities and requirements of the task, which empowered them to take the necessary action to sustain their project.

Positive feedback followed, in the form of recognition and income, which generated repetition of essential actions for sustainability. The study concluded that the critical factors contributing to sustainability could be explained as a cyclic process. Given that this process is based on the findings of a single study, further research is recommended to determine whether it can be applied to similar work creation projects.

THE IMPLEMENTATION AND EFFICACY OF NEW R_{THB} IN THE CAPE METROPOLE AND WINELANDS DISTRICTS OF THE WESTERN CAPE: MONITORING AND RECORDING OF ORAL HEALTH AND DEVELOPMENTAL MILESTONES

Verster JL, Jackson GM, le Roux M, Meyer I, van Niekerk E, Beukes R

Abstract:

The new Road to Health Booklet was released to replace the Road to Health Card in January 2011, within the Western Cape, which was further sub-divided into the Metropole and Winelands districts. The aim of this study includes: to analyse whether the developmental screening and oral health of infants are correctly monitored and recorded by Health Care Workers (HCW) in the Road to Health Booklet. A descriptive study with an analytical component was conducted. The total study population consisted of 145 HCW and 1019 infant-caregiver pairs. Data collection was conducted by means of questionnaires and observation recording forms. The knowledge of caregivers was assessed. From this assessment, 71 percent of the caregivers in the total study population stated they did not know what developmental milestones were. The purpose of developmental screening was unclear to many of the caregivers. Eighty five percent of the HCW in the total study population stated in their questionnaire that they assessed and recorded developmental screening as displayed in the booklet, but upon observation, only 23 percent of the observed consultations included developmental screening. Within the clinical notes of the booklets of the study population, developmental screening was mentioned 18 times. Twenty two percent of infants' first tooth had erupted by the time of the study. Of these, only seven percent have had an oral examination which was recorded in the booklet. All aspects of the oral health section in the booklet were stated to be understood by 72 percent of the HCW in the study population. According to the clinical notes, referrals were observed to be made to the dietician 7 times, the occupational therapist and the dentist twice each. Results indicate that caregivers and HCW need to receive education regarding the developmental screening and oral health sections of the booklet. The establishment of the correct team to conduct the oral health examinations is imperative to ensure this is conducted. The researchers recommend that the developmental screening in the booklet is comparative to the 'ambulatory care children 0-12 years' which is issued by the provincial administration.

Judges scoring criteria:

Criteria & Comments	Mark
Aim and Background	/10
Methodology and Results	/10
Conclusion	/10
General impression	
Oral technique	/5
Visual aids	/5
Originality	/5
Answering questions	/5
Miscellaneous	
Total	/50
General comments:	