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Primary health care reforms in Pakistan: A mandatory requirement for successful healthcare delivery - page 7

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With this issue of the journal we are introducing the the Middle East Primary Care Quality Improvement program (MEQUIP). Our time working on the MEJFM and various regional and global postgraduate medical education projects and strategies have seen standards, policies and institutions in the Middle East and North Africa greatly advance. However this is not the situation in all regional countries and there are still issues that affect all countries of the region.

The needs range from Middle East and North Africa trained doctors finding difficulty obtaining employment in many regional and international organisations, such as Medical schools and hospitals, lack of ongoing postgraduate education (CME/CPD) often required by these organisations and a huge variation in standards and prior education among practising doctors greatly affecting population health in a range of countries. The program will start in Nov 1st 2016. A detail paper on the topic is included.

A paper from Pakistan looked at the need fro primary care in Pakistan. The authors stressed that all over the world, family physicians take pride in their work of providing care at the first point of contact; the concept is very well established and refined in United Kingdom amongst many other developed countries. General practitioners in the UK are often known as the gatekeepers to the National Health Service (NHS). This is because of family physicians being the first point of contact for the patients. Majority of patients are managed in primary care, while a few who require further treatment are referred to the secondary care for further management. It has been known that the access to family physicians has a positive effect on the overall health of the patient. In this paper, the author discussed the disease burden, with brief introduction to the current healthcare provision and conclude with suggestions for implementation of family medicine as a speciality in rescuing the ailing healthcare delivery system of Pakistan.

A paper from the UAE discussed a national model for CME/CPD program for dentistry within primary care. The paper is part of an extensive survey done at the Emirate of Abu Dhabi. Recommendations and conclusions were presented by the author.

A case report from Libya presented a case of Acute hair matting (AHM) which is a rare acquired encountered condition in the medical setting, rarely seen, presenting as an acute sudden solid mass of irreversible matting of scalp hair on the vertex in otherwise healthy individuals due to vigorous shampooing or neglect of hair or parasitic infestations. Subsequently, other factors such as shampoos including herbs, conditioners are claimed to be the culprit as well. It's also called as Plica neuropathica. The condition is with irregular hair twists that severely entangled hairs abruptly formed in the scalp. In this case A 16-year-old otherwise healthy, single Libyan girl from the outskirt of Libya presented with a foul-smelling boggy mass of hair on scalp since few months, which she could not be combed for five days. The patient, who wears a head covering for religious reasons had a distinctive big head due to hair matting, and had not shampooed her hair in 6 days. She indicated that routinely washed her hair once weekly. Physical and laboratory evolution were done. Review of the condition was presented by the author.

A joint paper from Libya and Australia describes workforce characteristics of the only functioning disability rehabilitation service in 2012 Libya. This was the Benghazi Rehabilitation and Handicap Center. The focus of the case study was the physical disability services including amputee care. The study provides an insight into issues affecting disability services and revealed areas for future post-conflict workforce development and opportunities for disability service capacity building particularly in relation to coordinated information systems, qualification upgrades, in-service training, and development of inpatient discharge options including community based rehabilitation and supported accommodation.

Introducing the Middle East Primary Care Quality Improvement Program (MEQUIP)

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The Needs

Our time working on the MEJFM and various regional and global postgraduate medical education projects and strategies have seen standards, policies and institutions in the Middle East and North Africa greatly advance. However this is not the situation in all regional countries and there are still issues that affect all countries of the region.

The needs range from Middle East and North Africa trained doctors finding difficulty obtaining employment in many regional and international organisations, such as Medical schools and hospitals, lack of ongoing postgraduate education (CME/CPD) often required by these organisations and a huge variation in standards and prior education among practising doctors greatly affecting population health in a range of countries.

Middle East Primary Care Quality Improvement program (MEQUIP)
This program, rolling out November 1 is designed to meet the needs stated above.

Education Overview

Sourced primarily from QA&CPD/QI&CPD for (Australian) General Practitioners (GPs) and Specialists and authored by educational teams including Heads of University medical departments, GP authors, postgraduate medical educators and other health professionals, the program offered has been customised and added to, to meet the requirements of all global family doctors. This includes the addition of disease not found in first world education. e.g. leprosy, TB, and medical education for where prevailing socio-economic conditions may mean that doctors do not necessarily have access to the latest technology and patients may not be able to afford therapies prescribed.

It also respects all cultures and religions.

We also recognise that in our current world of travel and tourism that nowadays every doctor everywhere needs to know everything.

Where material for such 'missing CME/CPD' does not exist in developed world media education we have commissioned this from first world educated doctors who have practised a minimum of five years in a developing nation, in consultation with local doctors. For example our additional education for Nepal CME was written by UK, Australian and US doctors practising in Nepal in both rural clinics and the main urban based hospitals.

Additional material has been developed by medical educators from the Middle East for MEQUIP.

QA/QI&CPD standard education includes and requires

QA&QI represents the latest in CME learning formats with Information and Communications technology (ICT), as the preferred delivery model. The Quality Assurance (QA) aspect of the programs assesses both the participating doctor and the education itself through pre and post tests and evaluation modules surrounding the education. ICT is interactive and an enjoyable and proven learning model.

Doctors are tested on Behaviours, Attitudes, Skills, Knowledge and Systems in Medicine (on each particular topic) therefore it is CME in action. The aim of the Program generally is Quality Improvement (QI) of Practice

We use Professional/Adult education whereby the user compares their selected answers and "authors" agree or disagree with their choice and give them reasons why.

Participants/doctors are treated with respect and the education encourages a whole health and preventive health approach for patients.

Learning is 'case based' and each topic (e.g. Cardiovascular disease) covers all presentations in primary care, on that topic.

The MEQUIP program is further categorised as Modules: The Middle East Quality Improvement Program (CME and CPD) Outline:

Modules

Emergency Medicine
Child Health Emergencies
Obstetrics and Gynaecology
Chronic Medical Disease
Mental Health
Dermatology
Infectious Disease
Geriatrics
Office Surgery
Diagnostic Processes

An examination CD is available for each of the above Modules. This is available on Interactive CD/DVD and allows the participant to sit the exam as many times as required to achieve the pass mark required. This is to allow the program to be used as 'remedial CME/CPD', i.e. the aim is to bring the participating doctors up to standard, rather than penalise them. There is a charge for this component to cover costs as it is forwarded to each participant on CD/DVD, however this is not compulsory, rather it is available as an added component, for individual doctors and groups of participating doctors, The CME/CPD online is totally free to air.

Those who do participate in the exam module are able to print their Certificate of Satisfactory Completion from the CD itself once the required pass mark is achieved. Results can also be directly emailed to a governing body. As with the national programs already used around the world the Examination modules can be customised for national colleges and other governing bodies.

Australian QI&CPD standards for both doctors and Accredited Providers are available online at:
https://www.racgp.org.au/education/qicpd-program/

All programs provided by medi+WORLD International have been prior accredited at the highest category CME points. We can add further case presentations as required by the region.

Educational Background of the Principles

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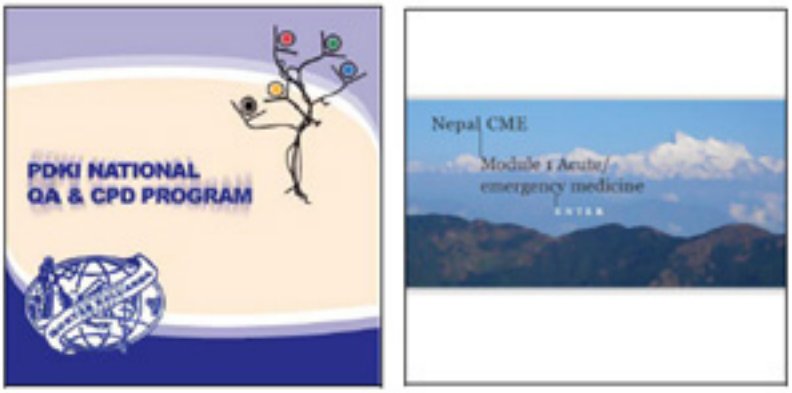
Chief Editor
World Family Medicine
Middle East Journal of Family Medicine
Middle East Journal of Age and Ageing
Middle East Journal of Business
Middle East Journal of Nursing
Middle East Journal of Internal Medicine
Middle East Journal of Psychiatry & Alzheimers
Founder Middle East Primary Care Research Network
Founder, Middle-East Association on Aging and Alzheimer's)
Founder, Middle East Network on Ageing Research - MENAR

Figure 1: Sample National Programs



Lesley Pocock
Accredited Provider - Postgraduate Medical Education

Publisher and Editor
Applied Sciences of Oncology University Courseware

Publisher and Editor
World Family Medicine
Middle East Journal of Family Medicine
Middle East Journal of Age and Ageing
Middle East Journal of Business
Middle East Journal of Nursing
Middle East Journal of Internal Medicine
Middle East Journal of Psychiatry & Alzheimers

(Multimedia Titles - include interactive education, animations, videos, scans etc as required by topic)
Anaemia
Ano-rectal conditions
Art of General Practice
Asthma Action plans
Child Health Emergencies
Cardiovascular Disease - Prevention and management
Depression
Dermatology
Common problems in the management of Type 2 Diabetes
Diagnostic process
ECG Interpretation (Full library of ECGs and their interpretations)
Geriatrics - Quality Care of the Aged
Hypertension & Heart Failure
Integrative medicine
Low Back Pain
Metabolic disturbances
Office procedures I
Office procedures II
Palliative Care
Parkinson's Disease and related movement disorders
Renal Disease
Sexually transmitted infections
Spirometry - how to perform and interpret
Stroke
Virtual consulting room
Women's Health I
Women's Health II

The Program can be found online at the following address:
www.mejfm.com/MEQUIP/index.htm

Figure 2: Sample Multimedia Educational title

Conclusion

The program will be run out under the guidance of a Board drawn from respected and accomplished medical educators of the MENA and MESA regions.

Academics, practising doctors and medical students may make free use of the programs, and all are welcome to submit requests, suggestions and ideas as well as educational case studies and resources to make this a genuine regional cooperation with the aim to lift the health status of all MENA and MESA populations.

The examination modules will also provide a cost effective formal national CPD program, with full reporting of national data and statistics for those countries without one.

This is a genuine initiative born out of mutual respect, a quest for excellence in the practice of medicine and regional cooperation in the spirit of Islam.

Primary health care reforms in Pakistan: A mandatory requirement for successful healthcare delivery

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Abstract

All over the world, family physicians take pride in their work of providing care at the first point of contact; the concept is very well established and refined in the United Kingdom and amongst many other developed countries.

General practitioners in the UK are often known as the gatekeepers to the National Health Service (NHS). This is because of family physicians being the first point of contact for the patients. The majority of patients are managed in primary care, while a few who require further treatment are referred to secondary care for further management. It is known that the access to family physicians has a positive effect on the overall health of the patient.

In this paper, we discuss disease burden, with a brief introduction to current healthcare provision and conclude with suggestions for implementation of family medicine as a speciality in rescuing the ailing healthcare delivery system of Pakistan.

Key words: Family medicine, Family physicians, FCPS Family Medicine, NHS, United Kingdom, General Practitioners. Healthcare in Pakistan

Disease Burden in a Pakistani context

It is known that access to family physicians has a positive effect on the overall health of the patient (1). Pakistan is a country of more than 184 million people, with a male and female life expectancy of 66 and 68 years of age, respectively. It is a country with a high disease burden, resulting in low quality of life. With rising costs, the provision of health care is becoming more challenging in a society facing many challenges in providing healthcare. This scenario is against the background that in 2014, Pakistan spent 2.6% of its GDP on health (2). In the same year, under-five mortality rate was recorded at 81 / 1000 (8.1%) of deaths per live births, a shocking statistic that needs to trigger a major policy reform in health care (3).

The majority of disease burden comes from tuberculosis, HIV and Malaria as well as non-communicable diseases. Diabetes and cardiovascular disease are becoming one of the fastest growing disease burdens in the country. Currently, 38% of its adult population above the age of 11 years smoke, while 11.7% above 25 years of age have high blood sugars and 28.6% suffer with high blood pressure. In 2012 the three major causes of death were Ischemic heart disease 111.4 per thousand (8.4%), Lower respiratory infections 104.5 per thousand (7.8%) and stroke 84.6 per thousand (6.3%). There has been a gradual increase in the number deaths between 2000 and 2012 caused from Ischemic heart disease, stroke, pre-term birth complications and chronic obstructive pulmonary disease. (4)

With current statistics for growth, stunting and malnutrition being comparable to Afghanistan, the government needs to rethink its overall health care delivery in general and primary health care strategy in particular.

A brief comparison of Primary Health Care and Pakistan

Many countries across the world have started taking steps towards improving their primary healthcare by increasing investment and re-structuring of the healthcare provisions.

According to WHO, Pakistan currently has 2.0 Primary health Care Centres / Units per 10,000 of the population (4). Although an improvement on previous numbers, the data should provide evidence that access to a doctor per patient population is ensured. According to a recent survey the United Kingdom, for example with an average sized General Practice, functions at a doctor to patient ratio of between 1:1400 to 1:2200 (5). This is to say that health centres are usually managed as partnerships between general practitioners supported by a team of highly qualified district nurses, practice nurses, ancillary staff and healthcare assistants. Denmark has a far better figure in access to a general practitioner with numbers ranging at 1:1600 (6). Lacking comparison, we can only equate the availability of a doctor to a number of populations. Unfortunately in Pakistan, we not only lack the number of qualified general practitioners but also the supporting staff that helps in the provision of healthcare to the masses.

The provision of primary healthcare services in the western countries is a good example of how Pakistan as a nation can tackle the top three deadliest disease burdens on its list. Looking towards our close neighbours, we notice a shift towards improvement of primary healthcare system. Countries such as Oman, Qatar and Saudi Arabia are good examples.

Ischemic heart disease and stroke are preventable and early diagnosis through effective screening can ensure timely treatment with better outcomes. A system of patient registrations with a local health centre is the key for continuity of care and provision of health promotion. Full use of electronic medical records have shown to have a positive impact on patient care (7, 8). This in turn will reduce the cost of healthcare by promoting prevention and diagnosing conditions much earlier thus reducing the disease burden at a later stage. It is by these means when the centres are managed by qualified family physicians that the health of the nation can change. Patient's contact with a family physician can have a positive effect on the health of the patient. Patients who have regular contact with their family physician tend to do better (9).

Healthcare in Pakistan is provided through a mixed healthcare system. The majority of healthcare provision is through private hospitals with the remaining being provided by government hospitals, armed forces through its social security system and the rest through the employee social security system. At primary healthcare level, care is provided through Basic health units (BHUs), Rural health units (RHUs), and Mother and child Units (MCHUs). Although the level of care at secondary level e.g. in private and many government run hospitals is generally good with doctors taking up specialisations in different specialities, primary care is generally ignored. For the Primary care services, the workforce is generally drawn from the newly graduated doctors, without adequate training. These include career grade medical officers who have opted to settle in the rural areas, usually close to their place of origin. Some healthcare is provided by doctors in training, these are in the process of completing their specialist training, which is commonly not related to Family Medicine.
In summary 90% of care is provided by doctors who have had no training in Family Medicine. This has a negative impact on the already strained healthcare; the lack of training in a speciality gives rise to poor disease outcome. It is widely known that Pakistan is lagging behind in the provision of healthcare and has failed to meet the WHO targets on providing healthcare in key areas. In 2006 WHO classed it as one of the 57 countries with critical workforce deficiency (11). The lack of appropriate services, poor availability of care, and poor funding are all various reasons for the burden on secondary care hospitals. Around 21% of the population visit secondary care services (11). This increases the financial constraints on the already under funded government hospitals.

Example of Family Physician consultation in the UK

Joe Bloggs is a 45 year old overweight male. He lives in an area classed as four on the Townsend quintile. He has recently lost his job and as a result, he has started smoking heavily due to stress. He attends his general practitioners with a history of cough and recurrent chest infections. His GP examines him, treats his acute infection with some antibiotics and a short course of steroids. His GP notices his frequent attendance for chest infections and orders a chest x-ray and a spirometry. Mr Bloggs returns after the investigations to discuss his results with the GP. He is diagnosed with a mild COPD, his GP discusses this with him, offers him smoking cessation advice and puts him on the practice COPD register, this way he can have regular recalls for the review of his chest symptoms. It is during attendance to one of the COPD clinics in the practice that Mr Bloggs quits smoking with the help of Nicotine patches. His GP who was trained in communication skills while completing his MRCGP also notices the nonverbal cues during the consultation and notices that Mr Bloggs has been overly stressed. He discusses this with Mr Bloggs and on further inquiring, it becomes evident that Mr Bloggs is suffering with moderate depression. He offers a sick note to Mr Bloggs, and discusses the likely treatment options. After shared decision-making, the GP starts Mr Bloggs on an antidepressant and also refers him to the local mental health team for counselling. After attending 6 sessions of CBT, Mr Bloggs returns to see his GP, he is now feeling much better, his COPD is under control and his depression managed he decides to come off the sick leave and look for work.

The previous scenario is a typical example of doctor patient relationship in UK general practice. General Practitioners take great pride in knowing their patients and patients report an increased level of satisfaction from the continuity of care (9, 12). The entire consultation is funded through the universal tax system. GPs are the gate keepers to keeping the costs of unnecessary investigations and treatments under check and work in line with the guidelines from National Institute of Care and health Excellence (NICE).

General Practice Training in the United Kingdom

Family Physicians known as general practitioners in the United Kingdom undergo a training programme lasting 3-4 years after the completion of house jobs. This has to be approved by the Royal College of General Practitioners (RCGP) for doctors to be able to practice as general practitioners. The training programme known as speciality training is based on the RCGP Curriculum (13). The general practice-training curriculum defines the skills, knowledge and qualities required to become an experienced GP. Trainees rotate through a recognised training post in the first two years consisting of hospital rotations in different specialities, including medicine, mental health, accident and emergency, trauma and orthopaedics, psychiatry, paediatrics, obstetrics and gynaecology. The last year of the training programme is generally spent in Family medicine known in the UK as general practice rotation or a GP surgery. The Royal College of General Practitioners have recently recommended that the training programme be extended to a four year rotation with minimum 24 months spent in general practice setting (14). RCGP described it as a "spiral curriculum" which will work by taking a general practitioner from a novice stage to being an expert in the speciality. The candidates after completing their core competencies during their training programme sit a written and clinical skills assessment to gain certificate completion of training in general practice. They are also granted Membership of the Royal College of General Practitioners on completion.

Conclusions

General practitioners have long been the primary care providers. The turn of the century saw a gradual shift towards more specialised care. This led to care being shifted from the primary care to the secondary hospitals. In Britain, for example, the concept of cottage hospitals where general practitioners used to treat patients was gradually abandoned and care was shifted towards more centralised major hospitals. The 1950s saw a resurgence in the importance of family doctors. The college of general practitioners was awarded the royal charter by HRH the duke of Edinburgh in 1972 (15). General practitioners have contributed to the vast majority of health of the country. Most of the western countries have a family medicine programme which effectively runs a modern primary healthcare system. The benefits of such a system are widely known. The current shift towards the same system as is seen in the west by many Middle Eastern countries is evident by the effectiveness of it achieving better health targets for its population.

Regionally Pakistan lacks a move towards such a system. With currently a handful of training programmes, being offered by a few universities there has been no effort towards the promotion of this speciality. In 2014, the Pakistan medical and dental council released a statement directing all medical colleges in the countries to initiate family medicine as a speciality in the final year exam for its medical students. The college of Physicians and surgeons in Pakistan awards Fellowship in family medicine, but unfortunately due to the lack of training facilities the uptake and future prospects for trainees haven't changed much since its inception. There also hasn't been any change of curriculum at any of the remaining medical colleges in Pakistan towards the implementation of the speciality.

Pakistan needs to reform its healthcare policies from many aspects. The mass training of family physicians as part of many other changes that are required for healthcare targets would improve the outcome of service delivery.

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Rehabilitation services in Benghazi, Libya: An organizational case study

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Abstract

Context: Little is known about Libyan disability and rehabilitation services.

Objectives: To describe workforce characteristics of the only functioning disability rehabilitation service in 2012 Libya. This was the Benghazi Rehabilitation and Handicap Center. The focus of the case study was the physical disability services including amputee care.

Method: Organizational case study involving site visit, self-report workforce survey, and review of relevant policy, government and peak agency reports relevant to disability services.

Results: The case study revealed that disability regulations in Libya focussed on social security entitlements and impairment focussed treatment. Community based rehabilitation or initiatives for social inclusion and participation were scant, creating problems for people requiring long term rehabilitation in the community. The center workforce continued to function in spite of conflict and in difficult circumstances. While expatriate staff left in the 2011 conflict, local staff retention was high. These workers were mono-lingual, had longevity of tenure, and a lack of qualification mobility. Some such as therapists and prosthetic technicians, had highly specialised skills requiring center facilities. The case study revealed: escalating patient demand; bed-block; and problems in supplies, capital and equipment maintenance. There were opportunities to increase capacity through: clinical and administrative staff training; development of inpatient facilities for women; discharge options for long-term male inpatients; and coordinated information systems. Of 232 eligible, n=72 staff, who participated in the survey (mean age was 39.4 years; n=40 males). Most therapists/prosthetic technicians were male; most nurses/administrative workers were female (p=.0001). The most common qualification across occupations was secondary school; 28.2% had intermediate secondary and 22.5% university degrees as their highest qualification. A third had been employed at the centre >20 years, >10 years and <10 years respectively. 42% worked as part of a team.

Conclusion: The study provides an insight into issues affecting disability services and revealed areas for future post-conflict workforce development and opportunities for disability service capacity building particularly in relation to coordinated information systems, qualification upgrades, in-service training, and development of inpatient discharge options including community based rehabilitation and supported accommodation.

Key words: Physical medicine and rehabilitation; health services research; disability; amputee; allied health

Introduction

Libya has growing numbers of people with disability as a result of conflict and non-conflict related causes. Conflict-related causes include historic events such as World War II and 1970s and 1980's border wars [1]. These not only resulted in immediate casualties, a legacy of explosive remnants of war (EWR) such as land mines continued to cause death and disability, most commonly amputations, in the decades that followed [1,2,3,4]. More recently the 2011 revolution and subsequent violence have left many casualties, as well as risks for further injury through endemic light arms and many more ERW [3, 5, 6]. Non-conflict related causes of disability include Libya's high motor vehicle accident rate, an increasing incidence of non-communicable disease such as cardiovascular conditions, a relatively high rate of genetic and hereditary disorders resulting from consanguineous marriage, and endemic trachoma resulting in blindness [7, 8]. In 2006 (the latest figure available), there were an estimated 160,000 to 200,000 people with disabilities in Libya [9].

People with disability from any cause in Libya need services. A framework for services was developed in 1981 when the "Law on Disabled People" was decreed [10]. This law aimed to put in place arrangements for government provision of housing, home care, education, prosthetic limbs and rehabilitation for people with disability in Libya [11, 12]. It complemented an existing 1973 Health Law that established the Public Health Code; this regulated hospitals, the practice of medical and related practitioners, public health, preventative health, therapeutic medicine, medical institutions and pharmaceuticals. A later law on disabled persons was also decreed in 1987[13].

Under these laws, almost all health services and all disability services and benefits were provided by government. Humanitarian or non-government services were not precluded, but in the mid-2000s it was the government Social Solidarity Fund and its 30+ branch committees that were responsible for services to people with disabilities[9]. In 2005, there were reported to be "three referral centers for adults with physical disability, five referral centers for children with physical disabilities, and 21 'day-time' units"[14]. Little is known about the paediatric centres or day time units. In 2007, only two referral centers were identified and these had specialised in-patient and outpatient facilities, with vocational training attached - in Tripoli and Benghazi. There did not appear to be any community based rehabilitation or supported residential care programs available and no non-government agencies were working on disability services[15]. Consequently, "physical rehabilitation services and psychosocial assistance in Libya are reportedly inadequate to meet the needs of people with disabilities" [15]. But there were reports that initiatives were being put in place by a newly established National Committee for Sponsoring those with Special Needs which met in Tripoli, to enhance disability access to employment, public places and education [15]. Around this time, workforce issues in disability services were identified: "Rehabilitation workers employed by the government do not receive salaries to cover their cost of living. Poor awareness of disabilities, low incomes, difficult accessibility and the lack of home care and a social safety network hamper the reintegration of people with disabilities, especially economically" [9].

By the time Libya signed the Convention on Rights of people with Disability in 2008, Libya had social security provisions for people with disability that included pensions, entitlements and access to free treatment in the government rehabilitation centers [16]. Benefits were administered through the Ministry of Social Affairs. A person who had lost 80% earning capacity could get 50% of the old age pension and benefits of an additional 25% if daily functions could not be performed and attendant care was required. There were also specific schemes for people injured through landmines [9]. After the 2011 revolution, existing disability benefit schemes were supplemented with provisions specifically for people wounded in that conflict [17, 18, 19]. These special benefits included international travel, accommodation and treatment as well as higher pension entitlements. They were initially provided through the newly established Ministry of Wounded Affairs [17, 18] and then through that agency under the Ministry of Health.

After the 2011 revolution, people with disability thus had access to two different types of service. One was international, for those eligible under the Wounded Affairs program or for people who could privately pay for international care, and the other was domestic. Domestic health services were administered through the Ministry of Health or, during and after the conflict, there were also non-government humanitarian aid agencies. Domestic disability services were administered, as before, through the Ministry of Social Affairs, however the conflict meant that only one service was left functioning after 2011 - one of the two referral centers mentioned earlier, the Benghazi Rehabilitation and Handicap Center (BRHC) [20]. Apart from landmine and EWR injury prevention programs, no disability-specific humanitarian or non-government local or international aid agency service was implemented following the conflict.

Disability was identified as a humanitarian and service issue [21, 22] and in the relatively stable post-conflict environment some plans were made [23], and advocacy groups identified areas needing action [24] but the security situation has continued to deteriorate [6], impeding many plans. Development attention has been focussed on the delivery and rebuilding of emergency, hospital and primary health care [25, 26, 27, 28]. The BRHC is thus an important organisation for access to disability services in Libya.

As the only functioning disability facility in the post-2011 environment, the BRHC became the focus of this case study. In 2006 the center was described as follows [9]:

"The Benghazi Rehabilitation Center, run by the Social Solidarity Fund, is one of the two main referral centers for rehabilitation in Libya. It operates a hospital, an orthopedic

workshop, physical rehabilitation center, psychosocial support and vocational training services for people with disabilities. Renovation of the center started in 2000 following an agreement between Libya, Italy and the UN Development Programme (UNDP) and was reportedly completed in 2005. The renovation aimed to provide better services to people disabled by mines from World War II. Italy provided approximately $7 million, which was used to train 36 technicians and equip the 120-bed rehabilitation hospital at the center. In 2005-2006, the center's organizational development and start-up was supported by the Italian Directorate for Development Cooperation. It will have a Libyan and an Italian coordinator, and 168 medical and 26 social staff. The center can assist 25-30 patients per day, but was working at 85 percent of its capacity. The lack of qualified nurses, data management, training gaps and erratic material supplies were a challenge for the center"

Since that description, much has changed but some of the asset and human resource issues identified in 2006 remain a problem today [29]. Throughout Libya, for example, there was widespread reliance on expatriate nursing and medical staff [7], with most fleeing during the revolution leaving serious workforce gaps [30]. This was one of a number of issues that was apparent in the case study. This organizational case study used a variety of data collection methods to describe functions and services at the BRHC. The case study provides an insight into issues affecting disability services in Libya, identifying potential areas for organisational and workforce development in a future post-conflict environment. The focus of the case study was physical rehabilitation.

Methods and Materials

A single site cross sectional cohort survey design was used, supplemented by field observations, and local policy and procedure documents obtained with permission from the study site. Volunteers were workers at the study site and included: nursing staff, physical therapists, prosthetic technicians and administrative staff. Staff involved in psychosocial programs and ancillary staff (e.g., cleaners) were excluded. The study was approved by (a) the University of Wollongong Australia & Illawarra Shoalhaven Local Health District Health and Medical Human Research Ethics Committee (HE12/199) and (b) the 2012 Libyan Ministry of Social Affairs by official letter. Site specific approval was given by the General Manager of the Benghazi Rehabilitation and Handicap Center (BRHC) after he received Ministry approval.

Instrument: A survey was used to elicit demographic characteristics, occupation, work patterns, patient education roles, knowledge of centre information systems, awareness of community based rehabilitation (CBR) services and awareness of the international UN Disability Convention. The survey was drafted in English, translated to Arabic and back-translated to English to assure accurate meaning.

Data collection and analysis: Data was collected in Benghazi from September 2012 to late October 2012. Staff were invited to complete the paper-and-pen survey anonymously and deposit it in a secure box collected by the researcher. All clinical and administrative staff at the centre were invited to participate as anonymous volunteers. Data were collected in Arabic.

Field study visit findings were collected through note-taking in Arabic. Note-taking was determined to be less intrusive, more confidential and secure than electronic recording. Field study data included: observation and facilities inspection; incidental conversations about services, procedures and centre arrangements; and documents relating to centre services, policies and procedures. Field notes were analysed by: identifying descriptive information in the notes relevant to describing the context or facilities of the study site; selecting information in the notes that described or explained one of the following - organisational arrangements, procedures used for patient records, or workforce practices.

Data analysis: Descriptive statistics were used to aggregate data, and Chi-square (X^2) explored associations using SPSS version 21. Answers to open questions were translated into English, categorised by topic and the frequency of response was type counted and recorded in SPSS™ version 22.

Center description

The BRHC is a specialist institution that has served the people of Benghazi and surrounding area since 1983 [29]. The centre was not damaged during 2011. It is a complex of well-appointed buildings, with power, sanitation, waiting areas, in-patient male wards, prosthetic manufacture facilities, consultation rooms, offices and biomedical laboratories connected by covered walk-ways within a walled precinct. The center offers psycho-social services and there are social workers and psychologists but no visiting psychiatrist. The centre offers specialised physical rehabilitation services, with a large department for amputee rehabilitation. Physical rehabilitation services were the focus of this case study. Physical rehabilitation services can be used by non-disability patients if they have a referral (for example if it is a fracture or strain and physiotherapy is needed). The limited availability of therapy services in primary health care or district hospitals is the reason this occurs. Since 2011 there has been no public transport. At the time of the study, workers reported they could travel safely to and from the centre using private transport. Patients travel to and from the center using private transport.

In-patient facilities in 2009 consisted of 100 beds, however since 2010 only males have been admitted. This is because the 40 bed female ward was gutted in 2010 with a view to refurbishment but it remains an untouched construction site. No alternative interim arrangements were made at the time of demolition. Most of the 60 male beds are occupied by long stay patients (estimated to be n=45 beds), with length of stay reported to be from 2 to over 20 years (no

mean length of stay could be calculated because of a lack of centralised system wide records). Reasons for long stay included an inability to be discharged home, no disability support services within communities, no home care services, no supported community accommodation, no long term residential high-care facilities, and no community based rehabilitation services. There is a very busy outpatient service that attends to acute and chronic conditions related to disability. During and after the 2011 conflict primary care services were also provided because there were so few other services available.

BRHC has a well-equipped orthopaedic and prosthetic workshop for inpatient and outpatient care, with specialist technicians and therapists. The center has a long tradition of specialised prosthetic practice as a result of international donor investment [9]. Before the 2011 conflict patients with amputations came in from across the country for prosthetic assessment, manufacture, fitting and training. Bed block is a serious problem for new patients as there are few free inpatient beds available.

Some donated or government funded physical rehabilitation and prosthetic equipment in the center could not be used because: there was no user-training when it was installed; people who were trained left; or more commonly there were no resources, technicians, maintenance crews or parts available to service, maintain or repair the equipment. Delivery and acquisition of clinical and administrative consumables was problematic in 2012 with supply lines interrupted by conflict.

At the time of the study, a centre-wide information system had not been developed and there was scant access to and use of computers making information systems even more of a challenge. Patient records were based in departments and they tracked particular episodes of care - for example the assessment, manufacture, fitting and training of amputee prostheses. If inter-departmental service was required patients carried records with them. The center was a referral service, but in 2012 so many people were in need of care not available elsewhere, patients would present with or without referrals. The lack of institution wide information management or record system meant that it was difficult for staff to ascertain presentation number or type, services requested and used, diagnostic categories, co-morbidities, severity of conditions, length of stay, discharge destination, referral and service use patterns, patient demographics and treatments. This created management and planning challenges.

Workforce Description

There are n=369 workers employed at the BRHC [29]. The organisational structure is hierarchical, with a General Manager, central administration services, and department heads reporting to the general manager across service types such as nursing, outpatients, therapy, and staff supervisors (who may have been department heads). According to the 2011 BRHC Annual Report [29] there were n=150 managerial and financial affairs workers; n=158 in the health care department; n=22 in the rehabilitation and social care department; n=17 in the prosthesis manufacturing department; n=25 in operation and maintenance. At the time of the study in 2012 there was one physician in the prosthetics department. BRHC nurses, therapists and prosthetic technicians were all trained in Libya. Although funded by the government, from time to time in 2011-2012, there were delays in payment of salaries, but staff continued to come to work in expectation that they would ultimately be paid because this had happened in the past.

Workforce Survey Results

Of 232 eligible staff, 30.6% participated (n=72). Participants had a mean age of 39.4 years (Mdn 38.1, range 26 to 66, SD 8.2, 3 missing); 56% (n=40) of participants were male (43%, n=31 female). All lived in Benghazi, were Libyan citizens and had Arabic as their first language. In rank order from highest to lowest proportion education level was:-

- 28.2% intermediate secondary school (n=20; 6 females, 14 males);
- 22.5% University Bachelor degree (n=16; 9 females, 7 males);
- 16.9% senior high school (n=12; 7 females, 5 males);
- 14.1% college Diploma (n=10; 3 females, 7 males);
- 5.6% technical qualification (n=4; 1 female and 3 males)
- 5.6%% primary school (n=4; 3 females, 1 male); and
- 4.2% University Master's degree (n=3; 2 female and 1 male).

There was no association between gender and level of highest education (X^2 =2.808; p=.246) when grouped into: (a) school (primary, secondary or high school leaving certificates); (b) college (Diploma or Technical Qualification); and (c) University (Bachelor, Masters).The statistical association between occupation and highest qualification was significant (X^2 =11.053, p=.026) across three groups of (a) nurses, (b) therapists and technicians and (c) administrators and managers. These three aggregated groups were used to ensure cell sizes >5. More staff in management/administration held university qualifications; only three nurses and one therapist held bachelor degrees. Most therapists and one prosthetic technician held diplomas. Overall, in every group most workers had secondary school as their highest qualification.

Occupation: Most participants were therapists (26.7%, n=19; 4 females, 15 males), followed by administration officers 22.5% (n=16, 9 females, 7 males), nurses 19.70% (n=14; 12 females, 2 males) prosthesis technicians 12.70% (n=9; all males) and administrative managers 7% (n=5; 1 females, 4 males). Biomedical and x-ray technicians were grouped together as these were very small cohorts; 5.6% of participants came from this aggregate group (n=4; all female). There was one male physician in the sample. The highest response rate for an occupational group was therapists (n=19 of a total 30; 63%); followed by prosthesis technicians (n=9 from a total n= 14; 64.3%); nurses (n=14 of 67, 20.8%) and administration officers (n=16 of 135, 11.8%). There was a significant association (X^2= 14.677,

p=0.001) between occupation and gender. Most therapists and prosthetic technicians were male and most nurses and administrative workers were female.

Work arrangements: All staff were employees; in the past there were visiting physicians but not since the conflict. Apart from nurses who worked in shifts, the usual work day was 8 am to 2pm. At the time of the study a new policy had been issued by the Ministry of Social Affairs that the standard work hours for all BRHC would change from 8am-2pm to 8am-3:30pm. This new policy was still in the process of being implemented. Workers had to sign-on at commencement and sign-off before going home. Although work hours were prescribed there was some department flexibility. Separate clinical assessment and treatment areas were provided for male and female patients and staff preferred to work in same-gender areas. The closure of the female inpatient ward meant that female nurses had to work on the male ward and this was reported to be uncomfortable for some.

Recruitment and retention: The average length of employment at BRHC was 13.28 years (range 1 to 35 years; 13.87 years females; 12.82 years males); relationship of gender and average length of employment was not significant (t=-.506; p=.615). A third had worked there for over 20 years (21-25 years, 22.5%, n=6 females, n=10 males; over 26 years 9.8%, n=7, all males). Just under a third had worked over 10 to 20 years (30.9% 11-20 years, n=12 females, n=10 males); and less than a third worked 10 or less years (6-10 years, n=16, n=10 females, n=6 males; <5 years n=13, 5 females, 8 males).

Job descriptions and/or task-specific positions could not be identified. There was no formal documented human resources workforce planning or allocation system - managers were aware of the labour needs of their areas. In some clinical areas there was reported to be a shortage of staff. Recruitment and selection of new staff was done when needed and when finance was available. There was no formal documented human resources turnover, retention or succession plan.

Teamwork: More than half the participants (53%) reported that they did not work as a part of a team; just 42% (n=30) did. The BRHC did not have a formal team system so when it did occur it consisted of episode-specific care teams such as: (a) nurse and therapist (8.5%); (b) therapist, prosthetics technician and orthopaedic physician (7%); or (c) therapist and prosthesis technician (2.8%).

Patient Education: The majority of participants did not provide training to patients or their families (n=48, 67.6%), but a minority did (n=22, 31%) (n=1 missing). These were predominantly technicians or therapists. Similarly provision of training to the community in general was very limited (n=8, 11.3%).

Perceptions of service provision before and after the revolution: Most 63.4% (n=45) participants indicated no change in the type of services provided at the BRHC from before the revolution to after it. In response to an open question about diagnoses seen at the centre after the revolution, n=28 participants reported stroke, n=25 said different types of physical disability, and n=17 specifically identified amputations. Other conditions mentioned by participants were fractures (n=8), cartilage damage (n=8), accident cases (n=8), spinal cord injuries (n=1), neck injuries (n=1), pelvis injuries (n=1), and damage to vertebra (n=1). These participant reports could not be corroborated against centre records because there were no aggregated patient information systems that could be used to track diagnostic categories or services provided.

Information management systems: Participants 53% (n=37) reported no centre-wide or out-patient information management system. Others identified there were patient records but these were not linked between different departments (n=45, 63%); for example inpatient nursing files and prosthesis workshop registration and service files. Some patients at the centre had initially received medical and rehabilitation treatment overseas before being repatriated and admitted to outpatient or inpatient services at the centre. A minority of participants had seen records sent from overseas for these patients (n= 16, 22%).

The lack of institution wide patient records meant that it was difficult to ascertain presentation number or type, services requested and used, diagnostic categories, co-morbidities, severity of conditions, length of stay, discharge destination, referral and service use patterns, patient demographics and treatments. This situation was exacerbated during and after the revolution when demand escalated.

Community Based Rehabilitation (CBR): 41% (n=29) thought there were no CBR or home services for people with disabilities; 48% (n=34) did not know (8.5%, n=6 missing). A few participants (n=6, 8.5%) reported there was CBR available- all of these people were senior professionals. No national or district policies, procedures or program reports on CBR could be located.

Awareness of the United Nations Convention on Rights or People with Disabilities (UNCRPD): More than half of participants (n=40, 58%) did not know that the United Nations had a CRPD, but 42% (n=29) did. These were therapists (n=9), prosthetic technicians (n=6), nurses (n=5), administrative managers (n=4), administrative officers (n=4) and one physician. Less than half of these people (n=11) knew that Libya had signed this Convention. This included all prosthesis technicians, half the administrative managers and one physician, therapist and administrative officer.

Discussion

This study makes a unique contribution to disability services research in the Eastern Mediterranean Region (EMR) through a first-hand account and workforce survey of the only functioning physical disability service in post-revolutionary Libya. Such information will help inform disability service planning and management efforts in the future. The case study revealed a stable workforce continuing to function in spite of conflict and in difficult

circumstances. It also revealed areas for workforce development and opportunities for disability service capacity building particularly in relation to discharge options and information system development. The key findings are now explored.

The study revealed that the BRHC had, in difficult circumstances, continued its work during and after the revolution, retaining sufficient clinical staff to maintain a physical rehabilitation program that included amputee care. Staff attributes may have contributed to workforce retention and continued service during and after the conflict: all study participants were Libyan, they could only speak Arabic and most had qualification levels that were lower than staff in equivalent positions in European countries - this may have limited their international mobility for work. They were Benghazi residents, most were long term employees and some had been at the centre for two or more decades - their families, networks and resources were thus concentrated in Benghazi. Thus being locally employed, longevity of tenure, lack of qualification mobility and mono-lingual status may enhance workforce stability - this did not affect expatriate staff who left during the conflict.

These workforce attributes are a strength during conflict and post-conflict periods - in-country training and hire of a local health workforce has been proposed to be an effective strategy to meet growing service needs in a globally competitive labour marketplace. The situation in this Libyan disability and rehabilitation service appears to support that suggestion. The highly specialised nature of facilities [29] may also have ensured retention of technicians, because workers could not perform their prosthetic work elsewhere. The disability and rehabilitation service was also able to continue because the security situation in that area of Benghazi was relatively stable - workers and deliveries could get to and from the centre safely even during the conflict. Stability around service centres is an important enabling factor for service continuity - health systems in “crisis-affected fragile states” need to be supported with security arrangements that permit access to and protection of infrastructure [26] and internal security during the 2011-2012 period seems to have been adequate in this part of Benghazi although it has now deteriorated [6].

El-jardhali et al., [31] identified problems affecting health services in the EMR and some of the same ones were identified in this case study. The lack of an integrated information management system was identified in 2006 [9] and again in this 2012 case study. A weak knowledge base as reflected in lower level qualifications in some of the professional staff was also found in the center. Across the EMR efforts are underway to enhance health service delivery and findings of this study suggest that those strategies may have relevance for disability services. There is a small but growing body of evidence relating to health systems in the EMR [31, 32, 33, 34], health and disability services and needs of the Middle East region and Libya in particular [7, 8, 25, 28, 35, 36, 37, 38, 39, 40], and post-revolutionary planning documents relating specifically to Libyan health [23, 27, 28] to help inform disability services planning which as yet has received little attention.

Conclusion and Recommendations

This study presents the first independent examination of a physical disability and rehabilitation service in Libya. The study site and workforce characteristics have been described. Findings reveal that clinical and administrative workers were retained during and after the conflict, providing evidence to support previous proposals that domestic recruits who are locally trained are more likely to stay.

Findings also reveal that professional development of clinical staff is needed. Some activities that could be considered in a post-conflict environment include: in service training for human services, information technology and rehabilitation equipment use; financial support or work release for qualification upgrades once suitable in-country courses are developed; and recognition of higher qualifications and specialist expertise in a disability services career path.

Information system development is urgently required. While access to computers and training and reliable electricity to use them is limited, paper-based systems could be considered to help build organisational practices and identify information system priorities.

Bed-block arising from the longevity of in-patients may reflect the lack of CBR or supported community care discharge options. Since the center was established as a specialised rehabilitation treatment facility (not a long term residential care service), in time appropriate discharge options should be developed so the specialised inpatient care can be focussed on active rehabilitation. Development of CBR and supported residential care in the community will help a post-conflict Libya meet commitments in the UNCRPD. CBR not only provides direct local services, but it also provides a catalyst for community inclusion and the environmental adaptations essential for participation in everyday life. In the future it is hoped that a coordinated approach to disability will involve specialist hubs and connected local community services. Places like the BRHC are expertise hubs. If specialist hubs can be safely connected with local CBR services, they can provide the hub-and-spokes model needed for long term rehabilitation, supported residential accommodation and chronic care of complex conditions.

There are many people with disability in Libya now and there will be more in the future. It is hoped that in time peace will come and the country will again be looking at post-conflict scenarios. Findings from this study may then inform coordinated disability and rehabilitation services planning, capacity building and service provision.

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CME Needs Assessment: National Model - Dental CME

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Introduction

This CME Needs Assessment paper was written to provide analysis on a particular regional country's <<the country>> proposed CME in Primary Care program. It has been provided as a National Model that other countries may wish to replicate.

In this new millennium most nations, both developed and developing are actively reviewing national health policies and strategies as well as health delivery systems. The over-riding imperative in all cases is to deliver quality health care in a cost efficient manner while addressing issues of access and equity.

The provision of health services in <<the country>> is divided into federal, local and private sectors. The Health Authority, and the local government agency is responsible for the provision of integrated, comprehensive, and quality of health services for its population.

The definition of need

As in most areas of education, for many years there has been intense debate about the definition, purpose, validity, and methods of learning needs assessment. It might be to help curriculum planning, diagnose individual problems, assess student learning, demonstrate accountability, improve practice and safety, or offer individual feedback and educational intervention. Published classifications include felt needs (what people say they need), expressed needs (expressed in action) normative needs (defined by experts), and comparative needs (group comparison). Other distinctions include individual versus organizational or group needs, clinical versus administrative needs, and subjective versus objectively measured needs. The defined purpose of the needs assessment should determine the methods used and the use made of the findings.

Exclusive reliance on formal needs assessment in educational planning could render education an instrumental and narrow process rather than a creative, professional one.

Methods of needs assessment

Although the literature generally reports only on the more formal methods of needs assessment, doctors and dentists use a wide range of informal ways of identifying learning needs as part of their ordinary practice. These should not be undervalued simply because they do not resemble research. Questionnaires and structured interviews seem to be the most commonly reported methods of needs assessment, but such methods are also used for evaluation, assessment, management, education, and now appraisal and revalidation.

Learnig for needs

The main purpose of needs assessment must be to help educational planning, but this must not lead to too narrow a vision of learning. Learning in a profession is unlike any other kind of learning. Doctors and dentists live in a rich learning environment, constantly involved in and surrounded by professional interaction and conversation, educational events, information, and feedback. The search for the one best or "right" way of learning is a hopeless task, especially if this is combined with attempting to "measure" observable learning. Research papers show, at best, the complexity of the process.

Multiple interventions targeted at specific behavior result in positive change in that behavior. Exactly what those interventions are is less important than their multiplicity and targeted nature. On the other hand, different doctors and dentists use different learning methods to meet their individual needs. For example, in a study of 366 primary care doctors who identified recent clinical problems for which they needed more knowledge or skill to solve, 55 different learning methods were selected. The type of problem turned out to be the major determinant of the learning method chosen, so there may not be one educational solution to the identified needs.

Much of a doctors' and a dentists' learning is integrated with their practice and arises from it. The style of integrated practice and learning ("situated learning")

develops during the successive stages of medical education. The components of apprenticeship learning in postgraduate training are made up of many activities that may be regarded as part of practice (13). Senior health professionals might also recognize much of their learning in some of these elements and could certainly add more- such as conversations with colleagues.

Thus, educational planning on the basis of identified needs faces real challenges in making learning appropriate to and integrated with professional style and practice. The first step is to recognize the need of learning that are a part of daily professional life in medicine and to formalize, highlight, and use these as the basis of future recorded needs assessment and subsequent planning and action, as well as integrating them with more formal methods of needs assessment to form a routine part of training, learning, and improving practice.

Methodology

Quality health care for patients is supported by maintenance and enhancement of clinical, management and personal skills. The knowledge and skills of practitioners require refreshment, and good professional attitudes need to be fostered through the process of continuing professional development. In an attempt to assess the needs for professional development of the medical, dental practitioners and nursing staff a survey was conducted by means of a Questionnaire (APPENDIX).
This report takes into account a wide section of the various medical, dental and nursing staff.
The purposes of the review, therefore were to:

- Determine the area of professional development
- Help thehealth professional , meet the challenge of changes in the structure and delivery of patient care.
- Encourage more reflection on practice & learning needs, including more forward planning; and
- Make the educational methods used in practice more effective

Part 1 - Demographic data (see Appendix)

465 questionnaires were included in the study out of 600 hundreds distributed. The exclusion criteria were that either the questionnaire was not returned or was incomplete. The response rate was 77 percent.

The mean age of the study population was 42years (SD 9.70) with the minimum age being 23 years and maximum being 74years. 72% of the study populations were below 50 years. The mean of the number of years since graduation was 18 years (mean =8.46, SD=9.16). Whereas the mean of the number of years in practice was 17 years (Mean=17.18, SD=9.16). As for gender distribution 35% of the samples were males vs 65% who were females.

Topics for the CME for Dentists and Dental Assistants

The report includes the details of the ratings on various topics, however the topics that received the highest ratings were: Infection control, management of the medically compromised patients, Diagnosis & Treatment planning, Dental radiology & its interpretation, preventive dentistry, dental composites and endodontics.

Format of CME

The response rate for the monthly activity was the highest with Hands - workshops.

Assessment Strategies
In the implementation of any CME activities assessment strategies is critical to judge the success of such a program. For example communication skills learning must be both formative and summative. The knowledge, skills, and attitudes to be assessed must be made explicit to both learners and teachers alike. Potential evaluators include local experts, course faculty, simulated and real patients, peers, and the learners themselves. Formative assessment should occur throughout the communication skills curriculum and is intended to shape and improve future behaviors. Assessment of communication skills must include direct observation of performance. Evaluation of setting a therapeutic environment, gathering data and providing information and closure must be included. Evaluation of advanced skills, including use of interpreters, providing bad news and promoting behavior change should be done as well. Criteria should match the novice level of the end of second year student, who should be able to identify the critical issues for effective communication and perform the skills under straightforward circumstances.

Conclusions

Quality CME can enhance the knowledge base and practice skills of the participating health care provider and is increasingly used as part of the credentialing and reappointment process. Continuing Medical Education is important not only as a requirement for practice, but as means for the profession to achieve one of its primary goals: QUALITY PATIENT CARE. To our patients CME requirements are a commitment made by the medical and dental practitioner to keep our knowledge and skills current.

CME really is about changing behavior through education- about doing something different, doing it better." It is critical to look at CME and CPD in the mentality of 21st century. We attempted to clearly present: that the patient's concerns, values and outcomes must be the center of care; that partnering with an activated patient is essential; that self-awareness is essential in being an effective physician; that improving the process of care and health outcomes is the physician's responsibility and requires a systems approach.

Quality CME can enhance the knowledge base and practice skills of the participating health care provider and is increasingly used as part of the credentialing and reappointment process. Continuing Education is important not only as a requirement for practice, but as means for the profession to achieve one of its primary goals: QUALITY PATIENT CARE. To our patients CME requirements are a commitment made by the medical and dental practitioner to keep our knowledge and skills current.

Dental Care Education Initiative

The topics that were covered in the survey included the following

CME FOR DENTISTS AND DENTAL ASSISTANT
Infection Control
The Patient Management Skills
Preventive Dentistry
Restorative & Esthetic Dentistry
Endodontics
Pedodontics.
Periodontics.
Prosthodontics
Oral Surgery
Implantology
Health Promotional Activities & Oral Health Education

Format of CME
Timing of the CME
Type of Activities
Self Study
Results of Survey

Topics for the CME

The response to the various topics in dentistry is presented in Tables 1-3 . These topics were rated similarly as the topics in medicine with:

a) Order of importance of the topic.
(1 = least important to 5 = most important)
b) Rating your own current level of Knowledge/performance.
(1 = basic to 5 = highly skilled)
c) Recommend CME activity on level of priority
(1 = least to 5 = highest priority)

Table 1

Topics		Rating of Importance		Knowledge Level		Recommended CME	
		Mean	SD	Mean	SD	Mean	SD
I	INFECTION CONTROL	4.95	.21	4.01	.69	4.52	.93
II	The Patient Management Skills						
1	Interviewing skills	4.13	1.00	3.66	.96	3.44	1.16
2	Medical History	4.38	1.05	3.66	1.09	3.82	1.21
3	Management of Medically Compromised patients	4.53	.76	3.52	.98	4.20	.99
4	Oral Examination	4.51	.99	4.09	1.01	3.81	1.29
5	Diagnosis & Treatment Planning	4.50	1.02	3.96	1.07	3.90	1.28
6	Dental Radiographs & interpretation	4.34	1.12	3.67	1.15	3.77	1.30

Table 2

Topics		Rating of Importance		Knowledge Level		Recommended CME	
		Mean	SD	Mean	SD	Mean	SD
III	PREVENTIVE DENTISTRY	4.58	.69	4.14	.78	3.85	1.28
IV	RESTRORATIVE & ESTHETIC DENTISTRY						
1	Amalgams	3.79	1.27	3.93	.99	3.03	1.44
2	Composites	4.45	.86	4.02	.92	3.76	1.36
3	Glass Ionomers	3.91	1.142	3.81	1.04	3.48	1.40
4	Veneers	3.66	1.12	3.01	1.17	3.61	1.06
5	Bleaching	3.71	1.153	2.88	.96	3.85	1.18

Table 3

Topics		Rating of Importance		Knowledge Level		Recommended CME	
		Mean	SD	Mean	SD	Mean	SD
V	ENDODONTICS						
1	Anteriors	4.11	1.28	3.13	1.29	3.82	1.33
2	Posteriors	4.04	1.22	3.86	1.16	3.92	1.27
VI	PEDODONTICS	4.12	1.12	3.35	1.24	3.84	1.14
VII	PERIODONTICS	4.12	.97	3.52	1.22	3.92	1.07
VIII	PROSTHODONTICS						
1	crowns	3.86	1.28	3.83	1.20	3.82	1.20
2	bridges	3.91	1.29	3.85	1.25	3.75	1.25
3	complete dentures	3.67	1.43	3.75	1.20	3.45	1.29
4	partial dentures	3.69	1.39	3.95	1.13	3.44	1.24
IX	ORAL SURGERY	3.77	1.26	4.04	1.10	3.75	1.24
X	IMPLANTOLOGY						
1	Surgical	3.62	1.39	3.69	1.20	3.74	1.37
2	Prosthetic	3.81	1.28	3.72	1.18	3.70	1.35
XI	HEALTH PROMOTIONAL ACTIVITIES & ORAL HEALTH	4.48	.83	3.58	1.39	3.98	1.20

Format of CME

Attempt was made to establish the most suitable timings and frequency of the CME activities.

The ratings adopted were :
1 being least appropriate, 5 most appropriate. The results are presented in Table 4 and the need for a monthly activity was rated highest 3.95 with Hands- on Training Table 5

Overall evaluation and need for improvement

As curricula and methodologies for the training of physicians approach the 100-year anniversary of the Flexner report (2010), it is important to recognize that medical education has been a constantly evolving process to address the training needs of physicians to serve society and its people.

Understanding curricular reform is one of understanding its history.

Many reports prior to 1990 (e.g. Rappleye, GPEP, Macy Foundation) comment on the process, as well as the content and structure of medical education. Several have noted the glacial progress of reform and the reasons behind this pace. More recently in the 1990s and the new century, the breadth of involved stakeholders in this process has widened, as many entities within and beyond medical schools have identified significant needs in the process of education of physicians for the 21st century. These defined challenges reflect not only the explosion of medical knowledge and technology and the

Table 4: Timing of CME

	Timing of the CME	Rating	
		Mean	SD
1	Weekly at night	2.42	1.52
2	Half day in the weekend on weekly basis	2.48	1.49
3	Bi-weekly	2.61	1.55
4	Monthly	3.95	1.38
5	Once yearly (Conference)	2.75	1.72
6	Others	2.03	1.60

Table 5: Type of Activities

	Type of activities	Rating	
		Mean	SD
1	Classic lectures	3.41	1.49
2	Workshops	3.91	1.38
3	Hand on Training	3.96	1.29
4	Conferences	3.55	1.32
5	Journal Club	2.82	1.48
6	Others	1.85	1.37

Table 6: Self Study Methods

	Type of activities	Rating	
		Mean	SD
1	Classic lectures	3.41	1.49
2	Workshops	3.91	1.38
3	Hand on Training	3.96	1.29
4	Conferences	3.55	1.32
5	Journal Club	2.82	1.48
6	Others	1.85	1.37

and the changing demographics of the population, but also the broader societal and health care system changes that are significantly affecting the contextual environment in which medicine is practiced.

There is a need to improve and train people responsible for CME and CPD activities. Traditional educational practice in medical schools emphasize the organ systems and discipline-based approaches, but in Primary Health Care , faculty development is necessary to ensure effective team teaching approaches, interdisciplinary collaboration, integration of material across disciplines and courses, and focus on patient health outcomes. The integration of these concepts needs to be across the curriculum and in every course rather than adding additional curricular time. Faculty development in adult education techniques may be necessary. Faculty development for role modeling and mentoring techniques should be considered.

The response rate from the survey was relatively high, reflecting the interest of the primary health care team in CME and CPD. There are a number of Barriers to obtaining optimal CME including lack of time and type of activities.

Lack of time

Lack of time was seen as the biggest barrier to obtaining optimal CME. All CME was carried out in personal time. 'It means night-time or weekends. CME activity has to fit in with on call and family. 'I am a working mother, time is the essence.' In our survey (table 6) most health care members preferred CME activity on a monthly basis which reflects that time is precious for the busy health professionals.

Motivation and fatigue were other barriers to CME. Distance, availability and cost were seldom raised as issues for urban GPs. However, distance precluded attendance for many rural practitioners, as did difficulty obtaining locums, cover for single days, availability of CME and financial

considerations. The perceived challenge was to increase the accessibility of personally-interactive CME.

Type of activities

A number of studies have shown preference of GPs for personal interaction. Some studies have shown a preference amongst physicians for lectures but this may include interaction. Others have found journals the most popular source of information but interactive formats were still highly rated. Preference depends on the type and quality of personal experience of this type of format. Pendleton differentiated the academic and professional approach to CME. He postulated that the academic prefers the written medium and the clinician prefers face-to-face. In our survey the respondents preferred the most hand on training, workshop, and conferences.

Review of randomized controlled trials on CME interventions revealed that personal interaction to be central to effectiveness in change in practice. Several studies have reported that physicians seek confirmation and validation of current and new medical practices through their peers. Other studies have confirmed the importance of interaction in changing professional behavior. However, it has not been established which elements of the interactive process enable learning. Interaction allows for clarification, personalisation of information, exploration, feedback, and reflection. It can also address other needs of doctors that may not be recognized or quantified - the need for support, recognition, motivation and fulfillment, and the 'need' to belong to a professional community.

As for self study methods the respondent preferred mostly journals followed by the internet followed by CD as shown in Table 6.

Interactive formats are not inherently beneficial nor always produce change. Some formats may be more conducive to specific changes in behavior and some to support. Group dynamics, facilitation, personal agendas, and internal and external influences contribute to the complexity of the format. In general, the focus was on choice of CME as opposed to other elements of the learning cycle. This approach has been documented previously and reflects the traditional approach to learning. It is well established that CME should follow the principles of androgogy - adult, self-directed learning. The term 'androgogy' has been coined to describe the learning culture appropriate to adult education . Whereas the term 'pedagogy' describes the teacher-centred approach to the education of children, androgogy 'recognises education to be a dynamic lifelong process' that 'is learner-orientated'. This is grounded in experiential learning - identifying and addressing needs and applying learning with continuing reflection. Although much has been written about the theory and benefits of this model. GPs do not appear to adopt it. This is not unique to GPs - a study of physicians' CME found that 'unstructured ad hoc reading and postgraduate activities predominate over methods based on specific, individual needs or on current patient problems'. Some GPs in our study did recognise that tailoring their CME to their identified, specific needs was better than the opportunistic approach, but few attempted this in any structured way. Discussions with colleagues one-to-one and in small groups may serve as an informal process of reflection, even though the benefits may not be easily quantifiable. The process of reflecting on issues, debating problem areas and formalising opinions may be helpful to the clinician, even where there has not been a specific updating of knowledge.

CME and CPD for Dentists

CME Needs for Dentistry

The topic of Infection Control received the highest ratings of all the topics 4.95 (SD 0.21) rating for and a rating of 4.01 (SD 0.69) for knowledge level. The topic of implantology was rated high for level of importance, but received lowest scores for knowledge level 2.8 (SD 1.2). This reflects the fact that, until recently this topic was not taught as part of the curriculum in the study of under graduate dentistry. Hence many general practitioners lack adequate knowledge and information on this topic. In addition as they are not practicing this specialty it was rated as the topic of 'least important'.

Also management of the medically compromised patients was rated of high importance with a score of 4.53 (SD 0.76) with the least score for current level of knowledge of the topic 3.52 (SD 0.98). An area that needs to be focused on. The details of the various topics that were considered is presented in Table 9.

Both Amalgams and glass ionomer restorations were rated low for importance as well as knowledge level because composites is the materials which is being predominantly used for restorations. Interestingly both the topics that is veneers and bleaching received low scores for level of importance as well as knowledge level probably because these procedures are not being practiced in the GAHS dental facilities in the Primary Health Care Center dentists who comprised the major proportion of the study population.

Response to the timing of the CME activity was highest for a monthly event 3.95 (SD 1.38) while the hands - on Training activity was highly recommended 3.96 (SD 1.29). For the mode of self directed learning Journals were rated high 3.64 (SD 1.38).

Conclusions

Quality CME can enhance the knowledge base and practice skills of the participating health care provider and is increasingly used as part of the credentialing and reappointment process. Continuing Medical Education is important not only as a requirement for practice, but as means for the profession to achieve one of its primary goals: QUALITY PATIENT CARE. To our patients CME requirements are a commitment made by the medical and dental practitioner to keep our knowledge and skills current.

Table 9: Topics considered in the CME Survey Questionnaire for Dentistry

Topics	Rating of Importance		Knowledge Level	
	Mean	SD	Mean	SD
INFECTION CONTROL	4.95	0.21	4.01	0.69
Patient Management Skills				
Interviewing skills	4.13	1.00	3.66	0.96
Medical History	4.38	1.05	3.66	1.09
Management of Medically Compromised patients	4.53	0.76	3.52	0.98
Oral Examination	4.51	0.99	4.09	1.01
Diagnosis & Treatment Planning	4.50	1.02	3.96	1.07
Dental Radiographs & interpretation	4.34	1.12	3.67	1.15
PREVENTIVE DENTISTRY	4.58	0.69	4.14	0.78
RESTORATIVE & ESTHETIC DENTISTRY				
Amalgams	3.79	1.27	3.93	0.99
Composites	4.45	0.86	4.02	0.92
Glass Ionomers	3.91	1.142	3.81	1.0
Veneers	3.66	1.12	3.01	1.1
Bleaching	3.71	1.153	2.88	0.96
ENDODONTICS	4.1	1.25	3.5	1.2
Anteriors	4.11	1.28	3.13	1.29
Posteriors	4.04	1.22	3.86	1.16
PEDODONTICS	4.12	1.12	3.35	1.24
PERIODONTICS	4.12	0.97	3.52	1.22
PROSTHODONTICS	3.7	1.35	3.8	1.2
ORAL SURGERY	3.77	1.26	4.04	1.10
HEALTH PROMOTIONAL ACTIVITIES & ORAL HEALTH	4.48	0.83	3.58	1.39

Assessment strategies

In the implementation of any CME activities assessment strategies is critical to judge the success of such a program. For example communication skills learning must be both formative and summative. The knowledge, skills, and attitudes to be assessed must be made explicit to both learners and teachers alike. Potential evaluators include local experts, course faculty, simulated and real patients, peers, and the learners themselves. Formative assessment should occur throughout the communication skills curriculum and is intended to shape and improve future behaviors. This requires direct observation (in person or videotaped) of the skills during role-play activities, with standardized patients, and with real patients. The feedback provided should be balanced and nonjudgmental. Self-assessment during the learning process should be encouraged.

Assessment of communication skills must include direct observation of performance. Evaluation of setting a therapeutic environment, gathering data and providing information and closure must be included. Evaluation of advanced skills, including use of interpreters, providing bad news and promoting behavior change should be done as well. Criteria should match the novice level of the end of second year student, who should be able to identify the critical issues for effective communication and perform the skills under straightforward circumstances.

Specific tools can be chosen from among the following:

- Standardized patients
- OSCE's
- Observed performance with patients and others
- Written reflections describing how a learner would approach a certain situation
- MCQ's

Adult Learning Principles

In addition to being "champions," teachers need to employ principles of adult learning in their approach to teaching these topics. The knowledge base for any of these topics is changing every day with the information and technology explosion that has occurred in the last quarter-century. Genetics is a perfect example of a topic subject to rapid, ongoing revision based upon new research findings. Physicians must learn how to identify their own learning needs and address these needs effectively, in order to keep up with the ever-advancing knowledge base in most of these topic areas.

Self-Awareness

In addition to fostering an enthusiastic approach to lifelong learning, the instructional method must encourage physicians to reflect upon their own lives in relationship to the topic. The topic of geriatrics, for example, emphasizes many issues that every student will face, through the aging of parents and themselves. Substance abuse, end-of-life, and other topics often elicit strong emotions within students, as physicians remember past experiences or recognize ongoing struggles within their own lives. Teachers must create environments that are safe enough to foster trust and intimacy, and yet challenge physicians to reflect upon their own experience of life, as they develop a basic level of mastery in these special topic areas.

"CME really is about changing behavior through education-about doing something different, doing it better." The bottom line of CME in the past has been the activities we produced-how many, how much they cost, how many people came. In essence, CME was more activity-oriented than learner-oriented. "Not only do you have to focus on the learner," "you have to focus on the learner in the context in which they are learning, which is the healthcare environment where they practice medicine." The aim of the proposal is to 'to provide leadership in the delivery of high quality education, for the primary care team, in the context of a caring and vibrant academic environment'

Appendix

QUESTIONNAIRE: CME FOR DENTISTS AND DENTAL ASSISTANT

Please rate each skill below:

d) In order of importance for you to acquire or possess. (1 = least important to 5 = most important)
e) By rating your own current level of performance. (1 = basic to 5 = highly skilled)
f) Recommend CME activity on level of priority (1 = least to 5 = highest priority)

Topics	Rating of importance	Knowledge level	Recommended CME
I- Infection Control			
II- The Patient Management Skills			
1. Interviewing skills			
2. Medical History			
3. Management of Medically Compromised patients			
4. Oral Examination			
5. Diagnosis & Treatment Planning			
6. Dental Radiographs & interpretation			
III-Preventive Dentistry			
IV- Restorative & Aesthetic Dentistry			
1. Amalgams			
3. Composites			
4. Glass Ionomers			
5. Veneers			
6. Bleaching			
V- Endodontics			
1. Anteriors			
2. Posteriors			
VI-Pedodontics.			
VII-Periodontics.			
VIII- Prosthodontics			
1. crowns			
2. bridges			
3. complete dentures			
4. partial dentures			
IX-Oral Surgery			
X-Implantology i. Surgical ii. Prosthetic			
XI- Health Promotional Activities & Oral Health Education			

Appendix (continued)

Any other skills or topic you feel are important for your academic development:

FORMAT OF CME

In order of preference rate the below activities from 1 to 5
1 being least appropriate, 5 most appropriate

Timing of the CME	Rating
1. Weekly at night	
2. Half day in the weekend on weekly basis	
3. Bi-weekly	
4. Monthly	
5. Once yearly (Conference)	
6. Others	

Type of activities	Rating
7. Classic lectures	
8. Workshops	
9. Hand on Training	
10. Conferences	
11. Journal Club	
12. Others	

Self Study	Rating
13. Videotapes	
14. Monographs	
15. Journals	
16. Internet	
17. CD	
18. Others	

Personal Information (optional)

Name _____

Degree _____

E-mail _____

Work place _____

Are you willing to help in the teaching process of the CME

Case report: Acute hair matting in a Libyan girl from the outskirts

Ebtisam Elghblawi

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Introduction

Acute hair matting (AHM) is an acquired encountered condition in the medical setting, rarely seen, presenting as an acute sudden solid mass of irreversible matting of scalp hair on the vertex in otherwise healthy individuals due to vigorous shampooing or neglect of hair or parasitic infestations. Subsequently, other factors such as shampoos including herbs, conditioners are claimed to be the culprit as well (Anisha S, 2016). It's also called as Plica neuropathica. The condition has irregular hair twists of severely entangled hairs abruptly formed on the scalp (Palwade PK, and Malik AA, 2008).

It was previously believed to be a disease peculiar to Poles and was called bird's nest hair (plica polonica) according to Anisha S, et al, 2016 findings.
Plica neuropathica (polonica) presents as a compact mass of scalp hair with irregular twists and irreversibly entangled plaits which are stiff to hard, tightly packed mass of keratin cemented together with dirt and exudates (Ghodake NB, Singh N, Thappa DM. 2013).

Plica neuropathica was first described by Le Page in 1884, and was thought to be due to hysteria (Gupta L, et al, 2015). Nonetheless, the term "plica polonica" was very ubiquitous in Poland in the 19th century (Polish plait), where the polish tradition of wearing tight fur caps and not washing their hair contributed to a muddy, filthy and malodorous compact mass over the head, frequently associated with lice infection and boggy inflammation in the scalp.

On the other hand, other stipulations for the similar pathology embrace felting, bird's-nest hair and plica polonica, which refer to acute matting of hair resulting from gross neglect (Kwinter J. and Weinstein M., 2006).

Case Report

A 16-year-old otherwise healthy, single Libyan girl from the outskirts of Libya presented with a foul-smelling boggy mass of hair on her scalp since a few months, which could not be combed for five days. The patient, who wears a head covering for religious reasons had a distinctive big head due to hair matting, and had not shampooed her hair in 6 days. She indicated that routinely she washed her hair once weekly.

Physical examination; a stiff protuberant solid mass of matted hair was revealed under the head scarf. The mass was found to be made of hair entangled into each other with the presence of a lot of crusting and foul smell and oozing areas on the scalp, with diffuse non cicatricial hair loss over the rest of the scalp. The hair mass enclosed almost 70% of the area on scalp, involving vertex, temple and occiput, mimicking a "bird's nest". The mass was fixed and difficult to move around and hairs were matted together with crusting and a foul smell. There was presence of plenty of louse and nits with swelling over the occipital lymph nodes. She declined having photos taken of her condition.

Hair-pull test was not easy to perform due to extensive hair matting. Trichoscopic examination was not performed due to thick matted hairs and she declined such examination.

There was associated pruritus and pain for her condition.

There were no other dermatological findings. There was no history of skin or hair disease in past.

There was no history of use of any chemical treatment for her hair such as streaking or straightening of hair.

Figure 1: Plica polonica

There was no history of fever, change of soap, shampoo, or oil for hair care.

There was no history of mental disorders, or emotionally and physically neglect or daily intake of medications.

There was no reported history of similar affection in her family.

Laboratory testing was not requested.

The exact pathology of AHM is still not understood, and multi factorial speculation can be proposed. For example, extreme rubbing and firmness in a liquid medium are thought to cause the assemblage of adjacent hair fibers, also poor hair care and poor hygiene can contribute to this condition.

However, some cases had been blamed after regular use of malicious shampoos and following irritant contact dermatitis of the scalp. The main culprit is neglected hair cleanliness and care, which may be associated with scalp inflammation and hair infestations with lice. Moreover, some specific hair habits, like applying sticky materials over the hair or using dreadlocks, entwined masses of matted ropes of long hair, which can be misinterpreted as AHM (Gupta L, et al, 2015).

Trichoscopy can be applied as it is a noninvasive and practical diagnostic tool which can help to better understand the hair and scalp conditions and to spot any explicit features in the hair shafts (Gupta L, et al, 2015).

Treatment of AHM mandates cutting the matted hair, and manual separation using organic solvent can be tried in early cases. Prevention of AHM includes regular use of soft hair cleansers and deep hair conditioners, and gentle combing to avoid entangling of hair fibers (Gupta L, et al, 2015).

This girl was prescribed overnight application of 1% permethrin lotion, a broad-spectrum oral antibiotic and advised a thorough shampoo wash and to shave off the entire scalp where the matted hair was in order to alleviate her scalp condition.

In some cultures, like India, plica neuropathica, also called plica polonica, felting or bird's nest hair was thought to be a nerve force and some consider it as a "visitation from God" and is seemingly quite common among Hindu ascetics (sadhus) in India, where long hair is not trimmed or combed and proper hair care is not observed, and thus hair entangles together leading to twisted masses of matted ropes of hair known as dreadlocks (Ghodake NB, Singh N, Thappa DM 2013).

Felting is a physical observable fact well known in the textile and wool industry, which causes gathering of adjacent fibers when exposed to friction and compression in a liquid medium. The exact etiology of plica neuropathica (polonica) is not clear. But it can be attributed to longitudinal splitting or weathering of hair shaft due to vigorous friction and frequent use of harsh shampoos and harsh cleansers; also poor hygiene and/or due to keeping long hair with poor hair care or its neglect resulting in scalp hair infestations and scalp pyoderma.(Ghodake NB, Singh N, Thappa DM 2013).

It is also probable that sweating associated with matting condition had moistened the hair enough to allow the head covering to serve as a frictional force (Kwinter J. and Weinstein M. 2006).

Some other predisposing factors suggested are kinky hair and febrile conditions. Also such conditions were found to be more frequent among psychologically disturbed women due to the repeated manipulation of the hair (Anisha S, et al, 2016).

Treatment of this condition is rather difficult, and the only alternative is to cut the matted hair all together so the scalp can breathe. The treatment of plica neuropathica involves cutting the matted hair. In the early cases, manual partition by organic solvents can be tried. Prevention includes hair care measures such as regular cleaning of the hair with mild cleansers or shampoos, placid oiling and combing to

avoid entangling, and habitual hair trimming. Piling hair over the vertex while washing and backcombing should be abandoned (Anisha S, et al, 2016).

Plica neuropathica in general affects healthy persons. The scalp hair is frequently affected. Additionally the ill efforts by the patient to comb the disorderly hair escort to electrostatic attraction and increase the chances of matting of the long and old hair. (Anisha S, et al, 2016).

Shaving of the matted hair is the most feasible option accessible. Plica, once developed needs complete hair removal. However, it can still be prevented from developing by regular gentle hair care and habitual washing habits. For instance, adopting simple measures as: regular cleaning of hair with mild cleansers or shampoos, with gentle oiling to avoid entangling, also regular long hair trimming, refraining from hair piling over vertex while washing and backcombing, and avoid rotatory rubbing of hair and lastly long hair should be given a backwash or be washed in the sink.

Matting of hair is not truly a hair disorder; however it is rather a reaction resulting from the interplay of great motley of factors.

My case had plica polonica probably due to poor hair hygiene and care practices and thus I emphasize the importance of good hair care practices to avoid such dreadful hair conditions.

To the best of my knowledge, it is the only one encountered case in the medical setting of the matted hair presenting for medical help from the outskirts of Libya.

References

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